Construction Completion Report: Block D Soil Remedial Action Lockheed Martin Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

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Lockheed Martin Corporation

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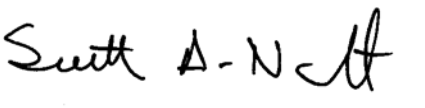

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ACRONYMS

BaPEq	benzo(a)pyrene-equivalent
bgs	below ground surface
Block	Tax Block
CFR	*Code of Federal Regulations*
CGP	(Maryland) "Construction General Permit"
COPC	chemical(s) of potential concern
DEPS	Department of Environmental Protection and Sustainability
DRO	diesel-range organics
E&SC	erosion and sediment control
GRO	gasoline-range organics
HASP	health and safety plan
HAZWOPER	hazardous waste operations and emergency response
HDPE	high-density polyethylene
HHRA	human health risk assessment
LMCPI	LMC Properties, Inc.
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
MDNR	Maryland Department of Natural Resources
MDSHA	Maryland State Highway Administration
µg/kg	microgram(s) per kilogram
mg/L	milligrams(s) per liter
MHT	Maryland Historical Trust
MRC	Middle River Complex
MSA	Martin State Airport
PAHs	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PID	photoionization detector
RAO	remedial action objective
RAP	remedial action plan
RCRA	Resource Conservation and Recovery Act
RG	remedial goal
RRA	residual-risk analysis
RSL	regional screening-level

RTD	real-time dust
SCD	Soil Conservation District
SVOC	semi-volatile organic compound
TCLP	toxicity characteristic leaching procedure
Tetra Tech	Tetra Tech, Inc.
TPH	total petroleum hydrocarbon
UCL	upper confidence-limit
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound(s)

Section 1
Introduction

Tetra Tech, Inc. (Tetra Tech) has prepared this construction completion report on behalf of Lockheed Martin Corporation (Lockheed Martin) to document completion of the soil remedial action at Tax Block (Block) D in March 2016, at the Lockheed Martin Middle River Complex (MRC) in Middle River, Maryland (Figure 1-1). The location of Block D within the Middle River Complex is shown on Figure 1-2.

This report documents the successful execution of the soil remedial action in Block D and the achievement of the associated soil remedial action objective (RAO) (see Section 4.4). In accordance with Section VI of Administrative Consent Order and Settlement Agreement ACO-SAR-MDE0746-2015-1-01 entered into by Lockheed Martin Corporation and the Maryland Department of the Environment, this remedial action meets the requirements for a "No Further Action" letter or equivalent determination for Block D soil.

1.1 BACKGROUND

Block D consists of 12.78 acres in the southeastern portion of the Middle River Complex (MRC). This tax block has been divided conceptually into two areas for future remediation and redevelopment: the main parcel of Block D, and the Block D Panhandle (a narrow strip of land southeast of Block D). Block D consists primarily of an asphalt parking lot (designated parking lot No. 6) and a portion of the grassed waterfront lot between parking lot No. 6 and Dark Head Cove. Block D is bounded to the north by Dark Head Cove Road and Johnson & Towers, Inc., to the south by Dark Head Cove and the panhandle area, to the east by Wilson Point Road and Martin State Airport (MSA), and to the west by Chesapeake Park Plaza (county road), Block E (including the former site of Building D), and Block F. Parking lot No. 6 is surrounded on all sides by a chain-link fence. Locked gates along Dark Head Cove Road, Chesapeake Park Plaza, and the Block D portion of the waterfront lot restrict access to authorized personnel.

Numerous environmental studies, including soil sampling, have chemically characterized Block D soil. A soil remedial action plan (RAP) was prepared to outline the alternatives and objectives for

remediating Block D soil (Tetra Tech, 2013). The remedial action plan was subsequently amended three times. The first addendum presented the results of additional sampling to support the soil-remediation design (Tetra Tech, 2014). The second addendum documented protocols to investigate an oil sheen found behind the bulkhead at the corner of Block D, near the panhandle (Tetra Tech, 2015a). The third addendum included a revision to the remedial action objective (RAO) and presented an updated implementation schedule (Tetra Tech, 2015b). The remedial action objective developed in the Block D soil remedial action plan (and amended in the third addendum) is to mitigate risks associated with potential exposure pathways identified in the conceptual site model for industrial users, as follows:

Soil remedial action objective— *Reduce site-related chemicals of concern in Block D soils to not exceed a cumulative human health cancer-risk limit of 1×10^{-5} for industrial workers via ingestion, dermal contact, and inhalation.*

The remedial action objective and previous soil sampling results were incorporated into the *100% Soil Remedial Action Design for Blocks D, D Panhandle, F, G, and H* (Tetra Tech, Inc., 2015c) in January 2015, and approved by the Maryland Department of the Environment (MDE) on January 18, 2015. These documents form the basis for the Block D soil remedial action, which removed and disposed of 5,028 tons of soil impacted by benzo(a)pyrene-equivalents (BaPEq), and removed and disposed of 286 tons of soil to facilitate the repair of the degraded storm-drain pipe leading to Outfall 9OF001. Daily reports completed during field activities are in Appendix A.

1.2 ORGANIZATION

This report is organized as follows:

Section 1—Introduction: Presents the background and organization of the construction completion report.

Section 2—Design, Permitting, and Site Setup: Describes the remedial action design, permits obtained before construction, erosion- and sediment-control installation, and site setup.

Section 3—Health, Safety, and the Environment: Describes the procedures used to ensure the health and safety of personnel.

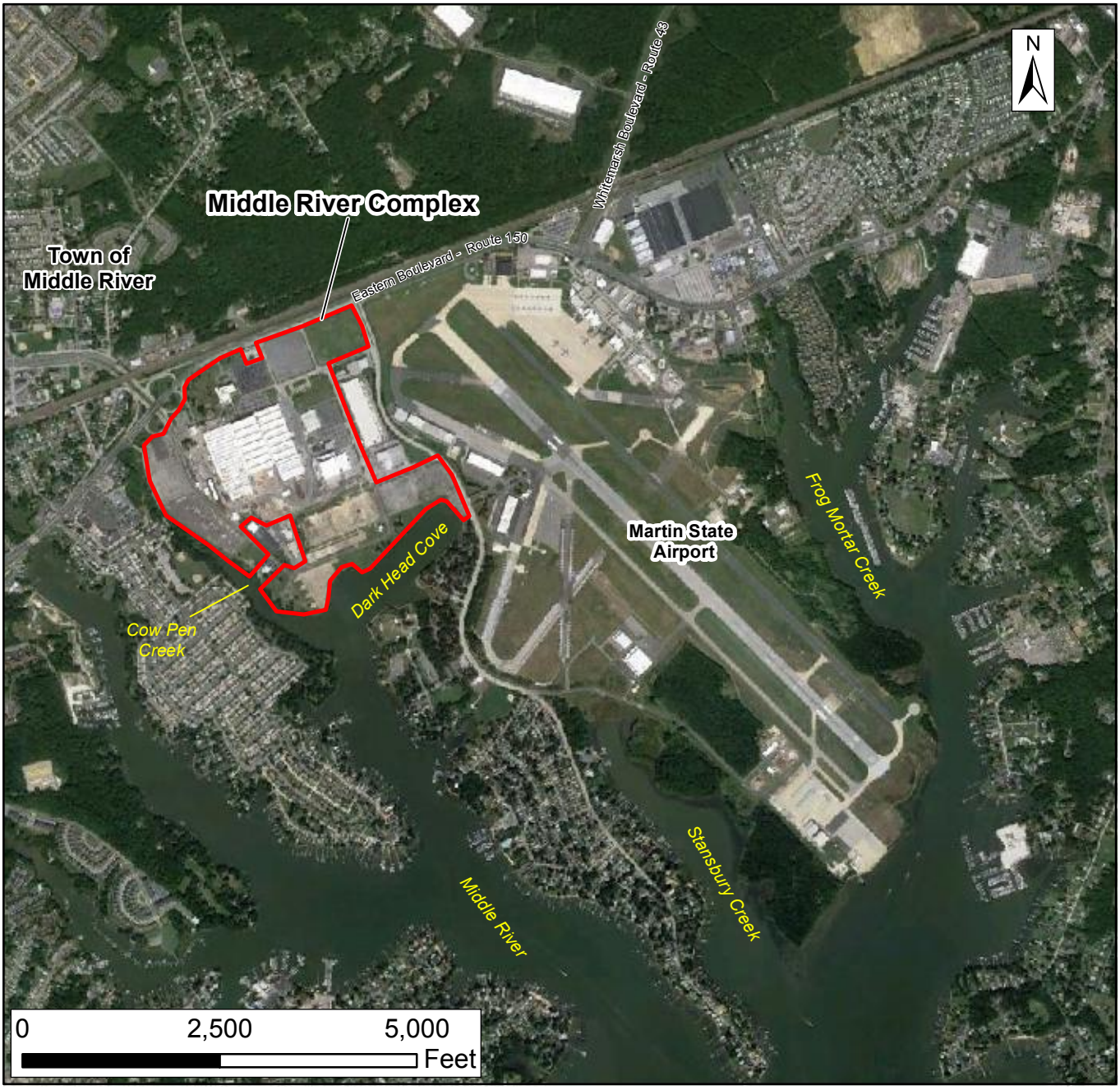
Section 4—Remedial Action Implementation: Describes the soil removal and achievement of the remedial action objective.

Section 5—Sheen Investigation and Storm-Drain Pipe Repair: Describes the sheen investigation and repairs made to storm-drain pipes at the site.

Section 6—Transportation and Disposal: Presents waste transportation and disposal details.

Section 7—Decontamination, Site Restoration, and Demobilization: Presents details of decontamination, site restoration, and demobilization.

Section 8—References: Lists references and citations used in compiling this report.



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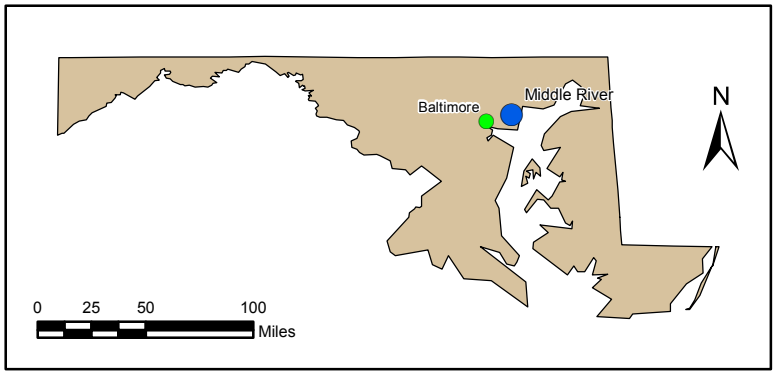

FIGURE 1-1

MIDDLE RIVER COMPLEX LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

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5/1/13	MP

TETRA TECH

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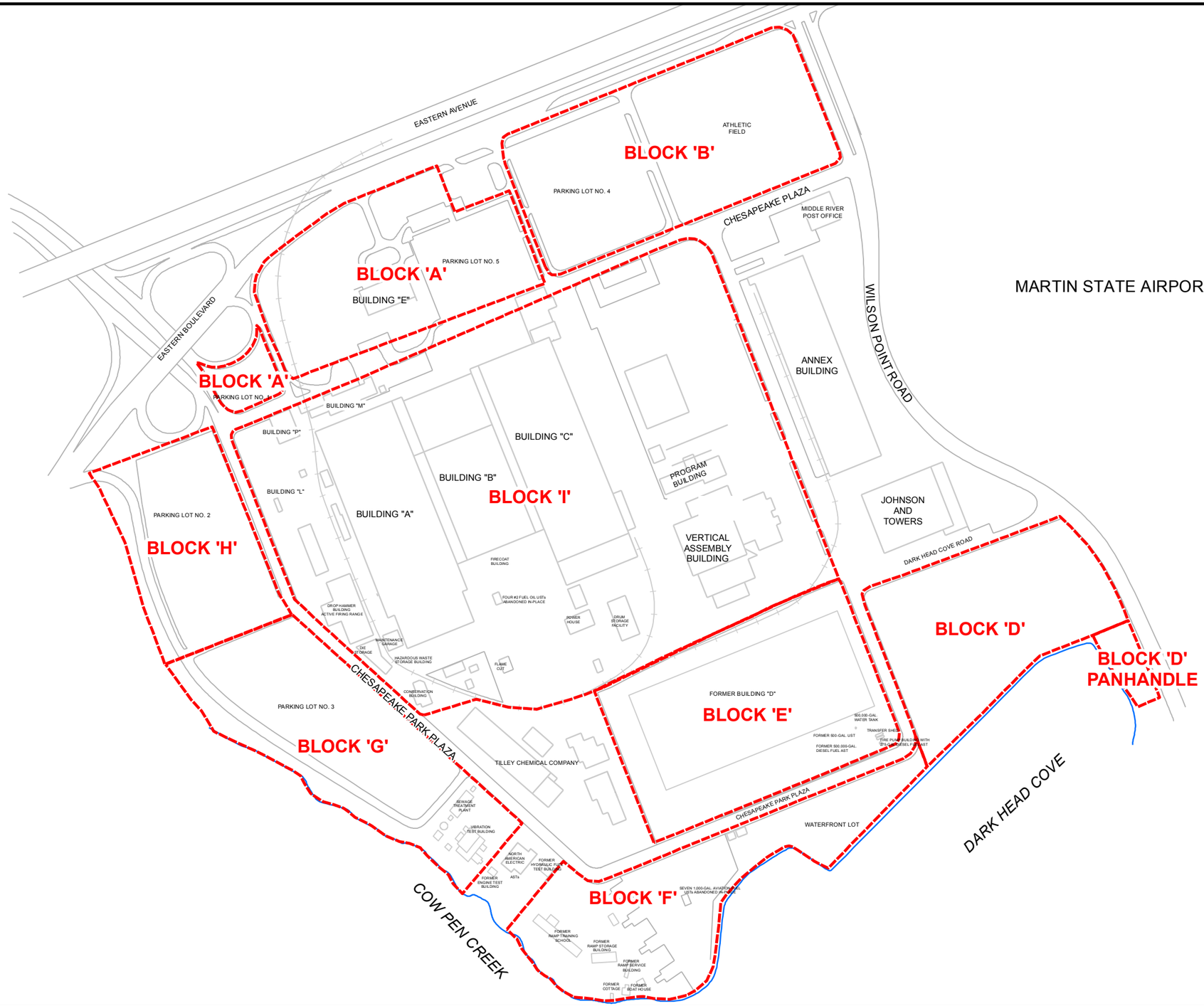

MARTIN STATE AIRPORT

FIGURE 1-2

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
TAX BLOCKS

LEGEND

- TAX BLOCK
- STRUCTURE
- RAILROAD TRACKS

Lockheed Martin Middle River Complex
Middle River, Maryland

0 200 400 Feet

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Section 2
Design, Permitting, and Site Setup

Permitting and site setup to implement the remedial action for Tax Block (Block) D soil included:

- completing the remedy design
- obtaining necessary permits and approvals
- clearing utilities
- installing temporary facilities
- installing erosion and sediment control measures

2.1 DESIGN AND REGULATORY PERMITS

Tetra Tech Inc. (Tetra Tech) submitted the *100% Soil Remedial Action Design for Blocks D, D Panhandle, F, G, and H* (Tetra Tech, 2015b) to state regulators in January 2015. The design was approved by the Maryland Department of the Environment (MDE) on January 18, 2015. Tetra Tech secured all necessary permits, approvals, and authorizations from state, federal, and local agencies for activities in Block D. Copies of the permits and authorization letters are in Appendix B. Note that work authorization for Block D is part of work authorizations issued for Blocks D, D Panhandle, F, G, and H. Permits/approvals secured specifically for the work in Block D include:

- Baltimore County grading permit
- Baltimore County Soil Conservation District (SCD) erosion and sediment-control plan approval
- MDE "General Permit for Stormwater Associated with Construction Activity"
- Maryland Historical Trust (MHT) determination
- Maryland Department of Natural Resources (MDNR) review
- Baltimore County stormwater-management variance

- Baltimore County critical-area and natural-resource variance
- MDE Water Management "General Tidal Wetlands License"
- United States Army Corps of Engineers (USACE) Section 404 approval under the "Maryland State Programmatic General Permit"
- LMC Properties, Inc. (LMCPI) confined-space entry

Baltimore County approved a standard grading permit for ground disturbance (in the upland areas of Block D) on April 23, 2015 as part of the grading application submittal for Blocks D, F, G, and H. The erosion and sediment-control (E&SC) plans for controlling stormwater runoff during construction were likewise approved by the Baltimore County SCD on April 23, 2015. MDE required approval of E&SC plans by SCD for final authorization of the Maryland State "General Permit for Stormwater Associated with Construction Activity" that MDE approved on May 6, 2015.

The MHT and the MDNR were consulted to determine if historical or special-status species/habitats would be affected by the proposed action. On December 9, 2015, MHT indicated in a letter that the project would have no adverse effect on historical resources. The MDNR stated in a letter dated December 18, 2013 that no listed species or habitats are known to occur in the project area, but cautioned that this letter should not be interpreted as meaning that rare, threatened, or endangered species are not present. MDNR also noted that if appropriate habitats are available, certain species could be present without documentation, since adequate surveys have not been conducted.

This project qualified for a stormwater-management variance because final site grades remained unchanged and the project involved no post-construction stormwater-management features. This variance was approved on July 23, 2014 by the stormwater management office of the Baltimore County Department of Environmental Protection and Sustainability (DEPS). The project also qualified for a critical-area and natural-resource variance (approved on February 22, 2014) from the DEPS Environmental Impact Review office, because the project remedied previously developed/industrial areas that lack any wetlands, forest, or other natural habitats.

Impacts to tidal wetlands in Block D were associated with repair of the storm drain. The MDE Tidal Wetlands Division authorized these activities under a "General Tidal Wetlands License" on

August 27, 2015. The work on the storm-drain repair was approved under the "Maryland State Programmatic General Permit" by the USACE on the same date.

Entry into the stormwater inlet was required during the storm-drain repair to access the drain lines and connect piping. LMCPI issued the confined-space entry permits, valid for eight-hour periods and nontransferable. New permits were obtained each day that access was required.

2.2 UTILITY CLEARANCE

A pre-construction utility-locating survey was conducted before any activities requiring ground disturbance began. Enviroscan, Inc. of Lancaster, Pennsylvania was contracted to perform a geophysical survey of the work area and identify possible underground utilities. This survey was completed on May 20–21, 2015. Identified utilities were marked on the ground using spray paint. These marks were refreshed as required throughout the project. The project team also inspected the area for overhead utilities, noting where utilities might interfere with operations.

Maryland's "Miss Utility" clearinghouse was notified of project activities and approved the ticket request on April 15, 2015. The Miss Utility ticket was updated as required throughout the project. Tetra Tech followed Lockheed Martin Corporation (Lockheed Martin) *Enterprise Operations-28* and Lockheed Martin *Minimum Requirements for Intrusive Fieldwork Work Plans*, in addition to completing the LMCPI digging authorization form and obtaining required signatures before conducting any intrusive activities. The completed digging authorization form and utility clearance report are in Appendix B.

2.3 INSTALLATION OF TEMPORARY FACILITIES

One project trailer was placed in Block G for site personnel in April 2015; this trailer was used for the duration of the soil remedial actions in all tax blocks. Power was connected to the trailer through the existing power-supply lines in Block G. Portable toilets and a storage container for tools were also provided.

2.4 INSTALLATION OF EROSION AND SEDIMENT CONTROLS

Temporary E&SCs were installed in June 2015 in accordance with the approved E&SC plan included in the *100% Soil Remedial Action Design for Blocks D, D Panhandle, F, G, and H* (Tetra Tech, 2015c). These controls included a temporary asphalt berm, inlet protection, a super-silt

fence, super-silt fencing on paved areas, and a turbidity curtain placed in Dark Head Cove. These controls were inspected and approved by a representative of the Baltimore County Department of Permits, Approvals, and Inspections on August 5, 2015. Tetra Tech inspected the E&SCs weekly, and after rain, throughout the duration of the project. The county representative also made periodic inspections during site activities. Maintenance and repairs were performed as necessary; minor deficiencies were noted during some inspections by Baltimore County and site personnel, and were corrected immediately.

Section 3
Health, Safety, and the Environment

A dust control plan (Appendix C) and a health and safety plan (HASP) (Tetra Tech, Inc. 2015d) were prepared before starting soil remedial-action activities to specify the measures taken to control airborne dust and ensure personnel safety. The following sections describe how these plans were implemented during construction in Tax Block (Block) D.

3.1 AIR MONITORING

Real-time dust (RTD) monitoring and visual observations were conducted to determine (quantitatively and qualitatively) if measures were needed to control airborne-dust levels and avoid dispersion or inhalation of contaminated dusts or particulate during excavation, stockpiling, load-out, backfilling, and compaction. RTD equipment (Dust Trak II air-monitoring stations) was deployed during excavation and load-out, and recorded dust concentrations from one upwind and two downwind positions on the perimeter of the Block D work areas. RTD equipment was calibrated each morning before use.

Data were continuously downloaded to data analysis software onboard the device so that field personnel could obtain real-time air monitoring data (via email and text message), expressed as 15-minute-average dust concentrations. All dust readings recorded during construction were well below the Block D-specific dust action-level (five milligrams per cubic meter) specified in the dust control plan; dust suppression measures were therefore not needed. Air monitoring data are in Appendix C.

3.2 PERSONAL AIR SAMPLING

Personal air sampling assessed personal dust and contaminant exposure for site personnel during excavation in Block D. Personal air samples were collected and analyzed for polycyclic aromatic hydrocarbons (PAHs) and crystalline silica as described in Section 4 of the dust-control and

air-monitoring plan (Appendix C). PAH and crystalline silica data underwent a quality assurance/quality control review by the site safety and health officer and a certified industrial hygienist from Tetra Tech. The review concluded that all PAH and crystalline silica detections were well below the threshold limit values. A review of personal air sampling data and associated calculations are in Appendix C.

3.3 HEALTH AND SAFETY MONITORING

All employees complied with the requirements of the federal Occupational Safety and Health Administration (29 *Code of Federal Regulations* [CFR] 1910 and 29 CFR 1926). All employees involved in intrusive fieldwork were 40-hour hazardous waste operations and emergency response (HAZWOPER)-certified, which includes eight-hour annual-refreshers and current medical clearance. Safety meetings were held before the start of each workday. All field personnel reviewed and signed a site-safety briefing form before beginning any work on site. Hazard-analysis worksheets were prepared per the site-specific HASP, and were reviewed by all personnel before each new task.

Section 4
Remedial Action Implementation

This section details the remedial activities for soil that were completed in Tax Block (Block) D of the Middle River Complex in September and October 2015.

4.1 EXCAVATION OF IMPACTED SOIL

Impacted soil was excavated from excavation areas A, B, C, D, E, F, and F1 using a hydraulic excavator. Soil was excavated to a depth of two feet below ground surface (bgs) in areas A, B, C, D, and E, and to a depth of three feet bgs in area F1. Soil was excavated to depths between 2-3 feet bgs in area F to inspect the condition of tieback rods and wooden pile-anchors for the bulkhead tieback system. In August 2015, the impacted soil was directly loaded into tri-axle dump trucks for 201 shipments to and recycling at the Soil Safe, Inc. facility in Brandywine, Maryland. Excavated soil was visually inspected to ensure that it was similar to previously identified conditions. Shipping documentation accompanied each truckload (see Appendix D). Approximately 5,028 tons of soil were excavated from Block D and transported to the recycling facility.

4.2 VERIFICATION SAMPLING

Once excavation had been completed in an area, verification sidewall-samples were collected at a minimum frequency of one sample per 100-linear-feet of sidewall. The data from these samples were used in the post-excavation residual-risk analysis (RRA) calculation to determine if the remedial action objective (RAO) had been met (Section 4.4). Four composite verification sidewall-samples were collected around each excavation area (Figure 4-1).

Verification samples at the base of the excavations were also collected, at a minimum frequency of one sample per 625-square-feet of excavation floor. The following numbers of verification base-samples were collected from excavation areas A through F1 (Figure 4-2):

- area A—three verification base-samples
- area B—three verification base-samples plus one duplicate
- area C—four verification base-samples
- area D—two verification base-samples plus one duplicate
- area E—six verification base-samples plus one duplicate
- area F—25 verification base-samples plus two duplicates
- area F1—10 verification base-samples

Note that verification base-samples were collected for informational purposes only, and were not used to determine whether additional vertical excavation would be required. Verification sidewall and base samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (USEPA) Method 8270D.

To ensure that the post-excavation RRA would meet the RAO, each verification sidewall-sample result was compared to the benzo(a)pyrene-equivalent (BaPEq) [1] remedial goal (RG) of 2,900 micrograms per kilogram (µg/kg). If BaPEq concentrations for all sidewall samples were below the RG, then the excavation area was backfilled. If a BaPEq concentration exceeded the RG, then the following criteria would determine if additional excavation had been required:

- if the maximum detected concentration of a verification sidewall-sample in an excavation area exceeded twice the block-specific RG
- if two or more sampling results per excavation area exceeded the block-specific RG
- if the arithmetic-mean concentration for the verification samples exceeded the block-specific RG

Per these criteria, additional excavation was not required in Block D. Figures 4-3 and 4-4 depict sampling results of verification sidewall-samples. Verification sampling results are also listed in Tables 4-1 through 4-7 for excavation areas A through F1, respectively. Copies of the verification

[1]Per current United States Environmental Protection Agency (USEPA) guidance (USEPA, 1993), concentrations of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene can be combined in an adjusted risk-weighted concentration that is expressed in terms of benzo(a)pyrene toxicity. This calculated value, called a *benzo(a)pyrene-equivalent (BaPEq) concentration*, uses USEPA-recommended toxicity equivalency factors to estimate the potency of each of these polycyclic aromatic hydrocarbon (PAH) compounds relative to that of benzo(a)pyrene. The toxicity equivalency factors are then used to convert each individual PAH concentration into an equivalent concentration of benzo(a)pyrene; these values are summed to arrive at the calculated BaPEq concentration. Details outlining the BaPEq calculation are in Appendix E of the *Block D Remedial Action Plan* (Tetra Tech, 2013).

sampling logs and chain of custody forms are in Appendix E, and laboratory and validation reports are in Appendix F.

4.3 RESIDUAL-RISK ANALYSIS

A post-excavation residual-risk analysis (RRA) calculated the final Block D cancer and noncancer risk to industrial users following soil removal to determine if the Block D remedial action objective had been achieved. The post-excavation RRA data set consists of data from the verification sidewall-samples, along with historical surface-soil data (at 0–2 foot depth) and subsurface-soil (two feet to the groundwater table) for all locations that were not excavated. Backfill material was analyzed before being delivered to the site, in accordance with the *100% Soil Remedial Action Design for Blocks D, D Panhandle, F, G, and H* (Tetra Tech, 2015b), and was approved for use. Chemical concentrations in excavated samples were replaced in the RRA calculation with the concentrations of chemicals in the backfill material. Verification base-samples were not used in the RRA because they were collected at the bottom of the excavation area. These samples represent deeper soil that industrial workers would not contact under typical conditions. Appendix G includes a technical memorandum with details regarding the RRA and associated calculations. BaPEq were the chemicals of concern driving the remediation effort. Tables B-1 and B-2 of Appendix G provide the BaPEq concentrations and the final 95% upper confidence-limit (UCL) on the arithmetic mean for detected concentrations. The following paragraphs summarize the post-excavation RRA.

The RRA first identified chemicals of potential concern (COPC) to be evaluated in the RRA by comparing the maximum detected chemical concentrations in the post-excavation database to current USEPA regional screening-levels (RSLs). Chemicals detected at concentrations exceeding screening levels were retained in the RRA for quantitative evaluation. Chemicals retained as COPC in the 2012 human health risk assessment (HHRA) were also retained in the RRA as COPC[2], so that the pre-excavation soil-risk estimates could be compared to the post-excavation soil-risk estimates.

The exposure assessment assumptions used in the RRA are those presented in the USEPA Office of Solid Waste and Emergency Response Directive 9200.1–120, *Human Health Evaluation*

[2] Chemicals from the global list of COPCs in the 2012 HHRA evaluated in the RRA for Block D included benzo(a)pyrene equivalents, hexavalent chromium, naphthalene, lead, mercury, and nickel.

Manual, Supplemental Guidance: Update of Standard Default Exposure Factors (USEPA, 2014). Exposure-point concentrations were calculated using the current valid version of USEPA's *Pro-UCL* software (Version 5.0.00). The receptor of concern is an industrial worker, which is consistent with the current site land use. In general, industrial workers are potentially exposed to contaminants in the top two feet of soil (0-2 feet bgs) as they are not typically involved with excavation activities like construction or utility workers that would result in contact with deeper subsurface soils. Therefore, soil remediation was primarily focused on reducing contaminant concentrations within the top two feet of soil to acceptable risk-based levels. However, as detailed in the RRA, soil excavation and removal went deeper than two feet at a few locations in Block D in sub-area F1 to address potential BaPEq "hot spots", as defined by MDE guidance.

The toxicity criteria (e.g., cancer slope-factors, reference doses) used to estimate cancer and noncancer risks are from the May 2016 RSL table published by USEPA. The equations used to calculate receptor intake (dose) and risk are the same as those used in the original baseline human health risk assessment prepared for Block D (Tetra Tech, 2012). As detailed in the RRA and summarized in Table 4-8, risk estimates for COPC concentrations (including BaPEq concentrations) in remaining Block D soil do not exceed a lifetime cancer risk of 1×10^{-5} (i.e., a one in 100,000 probability) for industrial users exposed to BaPEq via ingestion, dermal contact, and inhalation. The cumulative hazard index (an indicator of the potential for adverse noncancer effects) also does not exceed 1 (the noncancer risk-management benchmark for the project). Thus, the soil RAO at Block D has been achieved. The MDE Controlled Hazardous Substances Enforcement Division will document land use controls applicable to Block D in a "No Further Action" letter.

4.4 TIEBACK REPAIR, SOIL BACKFILL, AND COMPACTION TESTING

A tieback rod for the existing bulkhead wall was bent and disconnected from its associated anchor pile during soil excavation in area F. The tieback rod was straightened and reseated with a cubic yard of concrete. All excavation areas were backfilled and final surfaces were graded to match existing grades. Material similar in grain size to the removed soil and obtained from an off-site borrow source (Aggregate Transport Corporation in Hanover, Maryland) was used as fill. Fill material was analyzed and approved for use before being delivered to the site, in accordance with

the *100% Soil Remedial Action Design for Blocks D, D Panhandle, F, G, and H* (Tetra Tech, 2015b). Analytical data for the borrow-source sample is in Appendix H.

Various combinations of backfill were used during site restoration because wet subsurface conditions existed when the remedial action was completed. Backfill in the Block D excavation area A consisted of approximately 13 inches of No. 2 stone in saturated areas, covered with geotextile, followed by approximately 12–24 inches of CR-6. Backfill in excavation areas B, C, and D consisted of 24 inches of select fill, capped with 6–8 inches of compacted CR-6. Backfill in excavation areas E, F, and F1 consisted of No. 2 stone in saturated areas along the excavation bottom, covered with geotextile, followed by 1–3 feet of select fill depending on excavation depth. Backfill materials were placed via excavator and dozer and compacted with a single-drum soil compactor or mechanical tamper, depending on the size and depth of the excavation. In-place compaction testing was performed via nuclear moisture-density methods during backfill placement; all compaction results exceeded 90% modified proctor. Compaction-test data are in Appendix H. Final restoration is discussed in Section 6.

Table 4-1
Summary of Soil Verification Samples - Block D Area A
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	Remedial Goal	D-VS-A-1-1 240-54270-1 08/12/2015 -- 1	D-VS-A-2-1 240-54086-9 08/06/2015 -- 1	D-VS-A-3-1 240-54270-2 08/12/2015 -- 1	D-VS-A-4-1 240-54270-3 08/12/2015 -- 1	D-VB-A-1-2 240-54270-4 08/12/2015 -- 2	D-VB-A-2-2 240-54086-10 08/06/2015 -- 2	D-VB-A-3-2 240-54270-5 08/12/2015 -- 2
PAH (UG/KG)								
ACENAPHTHENE	-	5.5 J	0.9 U	380	80	35	18	18
ACENAPHTHYLENE	-	5.4 J	0.42 U	14 J	16	5.1 J	0.4 U	65
ANTHRACENE	-	6.9 J	0.93 U	580	220	45	18	31
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	29	1.3	1500	750	230	110	150
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	29	0.44	1500	750	230	110	150
BENZO(A)ANTHRACENE	NA[3]	22	0.75 U	1100	580	140	74	80
BENZO(A)PYRENE	NA[3]	22	0.76 U	1000	510	150	80	100
BENZO(B)FLUORANTHENE	NA[3]	31	4.4 J	1300	620	220	88	110
BENZO(G,H,I)PERYLENE	-	17	0.42 U	710	320	110	58	100
BENZO(K)FLUORANTHENE	NA[3]	16	0.81 U	560	300	77	68	49
CHRYSENE	NA[3]	26	1.3 U	1100	570	180	81	99
DIBENZO(A,H)ANTHRACENE	NA[3]	0.75 U	0.78 U	180	92	29	13	20
FLUORANTHENE	-	40	4.7 J	2200	1100	260	120	120
FLUORENE	-	6.3 J	0.63 U	390	98	48	16	24
INDENO(1,2,3-CD)PYRENE	NA[3]	15	0.42 U	600	280	93	50	68
NAPHTHALENE	-	42	0.97 U	120	84	56	140	14
PHENANTHRENE	-	20	0.87 U	1800	600	120	71	75
PYRENE	-	40	7.3 J	1700	880	270	110	180

Notes:

1. No results exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-2
Summary of Soil Verification Samples - Block D Area B
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	Remedial Goal	D-VS-B-1-1 240-54086-1 08/06/2015 -- 1	D-VS-B-2-1 240-54086-2 08/06/2015 -- 1	D-VS-B-3-1 240-54086-3 08/06/2015 -- 1	D-VS-B-4-1 240-54086-4 08/06/2015 -- 1	D-VB-B-1-2 240-54086-5 08/06/2015 -- 2	D-VB-B-2-2 240-54086-6 08/06/2015 -- 2	D-VB-B-3-2 240-54086-7 08/06/2015 -- 2	D-VB-B-3-2-AVG -- 08/06/2015 -- 2	D-DUP01-080615 240-54086-8 08/06/2015 D-VB-B-3-2 2
PAH (UG/KG)										
ACENAPHTHENE	-	9.8	0.89 U	0.89 U	7 J	4.8 J	5.8 J	15	13.5	12
ACENAPHTHYLENE	-	0.41 U	0.41 U	0.41 U	0.41 U	0.4 U	0.41 U	0.4 U	0.395 U	0.39 U
ANTHRACENE	-	0.92 U	4.5 J	0.91 U	0.91 U	0.89 U	4.7 J	12	11.5	11
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT(1)	2900	13.3	19.2	0.75 U	1.6	5.5	12.7	33.3	25.7	18.1
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS(2)	2900	12.9	18.8	0.75 U	0.85	5.1	12.3	32.9	25.3	17.7
BENZO(A)ANTHRACENE	NA(3)	9.6	17	0.73 U	4.3 J	4.6 J	11	26	21	16
BENZO(A)PYRENE	NA(3)	10	14	0.75 U	0.75 U	4 J	9.4	25	19	13
BENZO(B)FLUORANTHENE	NA(3)	13	22	0.69 U	4.2 J	5.9 J	11	36 J	27.5	19 J
BENZO(G,H,I)PERYLENE	-	8.8	9.9	0.41 U	0.41 U	0.4 U	9.3	21	15.5	10
BENZO(K)FLUORANTHENE	NA(3)	8.7	9.2	0.79 U	0.79 U	0.78 U	6.9 J	11	9.7	8.4
CHRYSENE	NA(3)	17	24	1.3 U	4.4 J	8.9	15	34	27.5	21
DIBENZO(A,H)ANTHRACENE	NA(3)	0.78 U	0.77 U	0.77 U	0.77 U	0.75 U	0.77 U	0.76 U	0.745 U	0.73 U
FLUORANTHENE	-	39	37	6.3 J	11	14	27	55	49	43
FLUORENE	-	29	4.5 J	0.62 U	18	4.4 J	7.1 J	15	13.5	12
INDENO(1,2,3-CD)PYRENE	NA(3)	5.4 J	7.8	0.41 U	0.41 U	0.4 U	6.1 J	16	13.5	11
NAPHTHALENE	-	8.2	12	0.96 U	4.6 J	9.8	12	17	15.5	14
PHENANTHRENE	-	51	21	5.7 J	25	15	23	54	55.5	57
PYRENE	-	34	31	5.7 J	8.6	10	22	46	41	36

Notes:

1. No results exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

(1) Calculated using one-half the detection limit for non-detected results.
(2) Calculated using a value of zero for non-detected results.
(3) cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-3
Summary of Soil Verification Samples - Block D Area C
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	RG	D-VS-C-1-1 240-54270-6 08/12/2015 -- 1	D-VS-C-2-1 240-54270-7 08/12/2015 -- 1	D-VS-C-3-1 240-54270-8 08/12/2015 -- 1	D-VS-C-4-1 240-54270-9 08/12/2015 -- 1	D-VS-C-4-1-AVG -- 08/12/2015 -- 1	D-DUP02-081215 240-54270-14 08/12/2015 D-VS-C-4-1 1	D-VB-C-1-2 240-54270-10 08/12/2015 -- 2	D-VB-C-2-2 240-54270-11 08/12/2015 -- 2	D-VB-C-3-2 240-54270-12 08/12/2015 -- 2	D-VB-C-4-2 240-54270-13 08/12/2015 -- 2
PAH (UG/KG)											
ACENAPHTHENE	-	60	51	130	33 J	24	15 J	0.9 U	0.91 U	28	0.93 U
ACENAPHTHYLENE	-	0.43 U	9.2	0.43 U	0.39 U	0.39 U	0.39 U	0.42 U	0.42 U	0.44 U	0.43 U
ANTHRACENE	-	99	150	74	23	20	16	0.93 U	0.93 U	0.97 U	0.95 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	240	160	110	72	51	30	12	0.76 U	6.0	0.78 U
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	240	160	110	71	51	30	11	0.76 U	5.6	0.78 U
BENZO(A)ANTHRACENE	NA[3]	190	140	82	57 J	40	22 J	11	0.75 U	4.2 J	0.77 U
BENZO(A)PYRENE	NA[3]	170	100	76	55 J	39	23 J	8.7	0.76 U	4.5 J	0.78 U
BENZO(B)FLUORANTHENE	NA[3]	200	140	100	70 J	50	30 J	13	0.7 U	6.7 J	0.72 U
BENZO(G,H,I)PERYLENE	-	110	71	50	35 J	26	17 J	0.42 U	0.42 U	0.44 U	0.43 U
BENZO(K)FLUORANTHENE	NA[3]	110	68	40	29 J	22	15 J	0.81 U	0.81 U	0.85 U	0.83 U
CHRYSENE	NA[3]	190	140	87	61 J	45	29 J	11	1.3 U	4.5 J	1.3 U
DIBENZO(A,H)ANTHRACENE	NA[3]	25	23	13	0.74 U	0.74 U	0.73 U	0.78 U	0.79 U	0.82 U	0.81 U
FLUORANTHENE	-	440	500	230	110 J	85	60 J	24	0.66 U	10	0.67 U
FLUORENE	-	51	78	98	21	17	12	0.63 U	0.63 U	7.2 J	0.65 U
INDENO(1,2,3-CD)PYRENE	NA[3]	86	66	49	33 J	23	13 J	0.42 U	0.42 U	0.44 U	0.43 U
NAPHTHALENE	-	72	52	69	40 J	29	18 J	0.97 U	0.98 U	19	1 U
PHENANTHRENE	-	320	510	330	79	66	52	12	0.87 U	11	0.89 U
PYRENE	-	360	410	180	99 J	74	48 J	19	0.53 U	8.1 J	0.54 U

Notes:

1. No results exceed the RG.

2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-4
Summary of Soil Verification Samples - Block D Area D
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	RG	D-VS-D-1-1 240-54724-13 08/25/2015 -- 1	D-VS-D-2-1 240-54724-14 08/25/2015 -- 1	D-VS-D-3-1 240-54724-15 08/25/2015 -- 1	D-VS-D-4-1 240-54724-16 08/25/2015 -- 1	D-VB-D-1-2 240-54724-17 08/25/2015 -- 2	D-VB-D-2-2 240-54724-18 08/25/2015 -- 2	D-VB-D-2-2-AVG -- 08/25/2015 -- 2	D-DUP07-082515 240-54724-19 08/25/2015 D-VB-D-2-2 2
PAH (UG/KG)									
ACENAPHTHENE	-	71	11	92	15	0.93 U	86 J	46	5.5 J
ACENAPHTHYLENE	-	0.42 U	0.42 U	0.45 U	0.41 U	0.43 U	82 J	41	0.43 UJ
ANTHRACENE	-	63	7.6 J	31	4.5 J	0.95 U	610 J	310	13 J
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[(1)]	2900	74	1.9	24	17	13	2500	1300	31
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[(2)]	2900	74	1.1	24	17	13	2500	1300	30
BENZO(A)ANTHRACENE	NA[(3)]	53	4.6 J	21	14	9.3	2300 *J*	1200	28 J
BENZO(A)PYRENE	NA[(3)]	50	0.77 U	18	13	9.8	1700 **J**	860	23 *J*
BENZO(B)FLUORANTHENE	NA[(3)]	71	5.9 J	24	15	16	2200 *J*	1100	30 J
BENZO(G,H,I)PERYLENE	-	32	0.42 U	11	11	9.8	1100 J	560	15 J
BENZO(K)FLUORANTHENE	NA[(3)]	19	0.81 U	8.8	7.8	4.8 J	1000 J	510	17 J
CHRYSENE	NA[(3)]	56	5.5 J	23	14	12	2100 J	1100	31 J
DIBENZO(A,H)ANTHRACENE	NA[(3)]	8.7	0.79 U	0.84 U	0.77 U	0.8 U	290 *J*	150	0.81 UJ
FLUORANTHENE	-	150	16	81	22	17	4200 J	2100	72 J
FLUORENE	-	71	10	96	14	0.65 U	150 J	78	5.9 J
INDENO(1,2,3-CD)PYRENE	NA[(3)]	27	0.42 U	11	7.2 J	6.5 J	950 *J*	480	12 J
NAPHTHALENE	-	190	29	150	43	13	23 J	15	7.3 J
PHENANTHRENE	-	270	40	200	31	15	2300 J	1200	55 J
PYRENE	-	120	14	64	20	15	3700 J	1900	60 J

Notes:

1. No results exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[(1)] Calculated using one-half the detection limit for non-detected results.

[(2)] Calculated using a value of zero for non-detected results.

[(3)] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-5
Summary of Soil Verification Samples - Block D Area E
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	RG	D-VS-E-1-1 240-54331-1 08/13/2015 -- 1	D-VS-E-2-1 240-54270-15 08/12/2015 -- 1	D-VS-E-3-1 240-54331-2 08/13/2015 -- 1	D-VS-E-4-1 240-54331-3 08/13/2015 -- 1	D-VB-E-1-2 240-54331-4 08/13/2015 -- 2	D-VB-E-2-2 240-54331-5 08/13/2015 -- 2	D-VB-E-3-2 240-54270-16 08/12/2015 -- 2	D-VB-E-3-2-AVG -- 08/12/2015 -- 2	D-DUP03-081215 240-54270-18 08/12/2015 D-VB-E-3-2 2	D-VB-E-4-2 240-54331-6 08/13/2015 -- 2	D-VB-E-5-2 240-54331-7 08/13/2015 -- 2	D-VB-E-6-2 240-54270-17 08/12/2015 -- 2
PAH (UG/KG)													
ACENAPHTHENE	-	140	16	130	7.2 J	5.8 J	0.89 U	0.91 U	0.92 U	0.92 U	120	0.9 U	9.5
ACENAPHTHYLENE	-	27	9.2	41	9.9	0.41 U	0.41 U	0.42 U	0.42 U	0.42 U	12 J	0.42 U	0.41 U
ANTHRACENE	-	300	44	360	22	7.5 J	0.92 U	0.93 U	0.94 U	0.94 U	240	0.93 U	19
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	1400	470	2900	270	25	7.6	1.5	5.0	8.6	1300	0.76 U	120
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	1400	470	2900	270	25	7.2	0.65	4.4	8.1	1300	0.76 U	120
BENZO(A)ANTHRACENE	NA[3]	880	270	1700	140	21	5.1 J	6.5 J	7.4	8.2	880	0.75 U	76
BENZO(A)PYRENE	NA[3]	900	310	2000	180	19	5.4 J	0.76 U	3.2	6 J	890	0.76 U	80
BENZO(B)FLUORANTHENE	NA[3]	1300	510	2400	230	25	8	0.7 U	6.7	13	1200	0.7 U	110
BENZO(G,H,I)PERYLENE	-	550	240	1100	150	12	4.9 J	0.42 U	0.42 U	0.42 U	560	0.42 U	63
BENZO(K)FLUORANTHENE	NA[3]	420	230	1000	99	11	0.8 U	0.81 U	0.82 U	0.82 U	440	0.81 U	48
CHRYSENE	NA[3]	1000	520	1900	160	21	6.9 J	4.9 J	8.0	11	950	1.3 U	91
DIBENZO(A,H)ANTHRACENE	NA[3]	190	57	400	37	0.78 U	0.78 U	0.79 U	0.80 U	0.8 U	190	0.79 U	14
FLUORANTHENE	-	1800	620	3000	200	41	8.6	10	13	16	1600	0.65 U	150
FLUORENE	-	130	12	96	6.7 J	0.63 U	0.62 U	0.63 U	0.64 U	0.64 U	95	0.63 U	8.2
INDENO(1,2,3-CD)PYRENE	NA[3]	510	200	1000	130	11	5.3 J	0.42 U	0.42 U	0.42 U	500	0.42 U	55
NAPHTHALENE	-	66	4.3 J	15 J	7.7	0.97 U	0.96 U	0.98 U	0.99 U	0.99 U	15 J	0.98 U	7.6 J
PHENANTHRENE	-	1100	150	1200	100	29	6 J	6.2 J	7.1	8 J	920	0.87 U	77
PYRENE	-	1600	540	2700	210	35	7.6 J	8.5	11.3	14	1400	0.52 U	130

Notes:

1. No results exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated

U: Non-detect

NA: Not applicable/not available

RG: Remedial goal

--: No duplicate collected

-: No remedial goal established for this compound

Table 4-6
Summary of Soil Verification Samples - Block D Area F
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME		D-VS-F-1-1	D-VS-F-2-1	D-VS-F-3-1	D-VS-F-4-1	D-VB-F-1-2	D-VB-F-2-2	D-VB-F-3-2
LAB ID		240-54724-9	240-54724-10	240-54676-12	240-54467-1	240-54724-1	240-54724-2	240-54724-3
SAMPLE DATE	RG	08/25/2015	08/25/2015	08/24/2015	08/18/2015	08/25/2015	08/25/2015	08/25/2015
DUP OF		--	--	--	--	--	--	--
SAMPLE DEPTH (FT)		1	1	1	1	2	2	2
PAH (UG/KG)								
ACENAPHTHENE	-	7.5 J	0.88 U	0.97 U	10	200	27	0.88 U
ACENAPHTHYLENE	-	6.2 J	0.41 U	0.45 U	22	0.81 U	6.1 J	0.4 U
ANTHRACENE	-	21	0.9 U	11	39	260	57	4.2 J
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	160	14	110	360	1100	240	17
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	160	14	110	360	1100	240	17
BENZO(A)ANTHRACENE	NA[3]	100	10	75	200	760	150	14
BENZO(A)PYRENE	NA[3]	110	9.6	71	230	760	160	13
BENZO(B)FLUORANTHENE	NA[3]	150	19	110	350	1000	200	17
BENZO(G,H,I)PERYLENE	-	83	17	54	260	500	110	9
BENZO(K)FLUORANTHENE	NA[3]	56	6.8 J	46	130	430	83	8
CHRYSENE	NA[3]	110	13	92	270	840	160	17
DIBENZO(A,H)ANTHRACENE	NA[3]	21	0.76 U	13	54	120	33	0.76 U
FLUORANTHENE	-	160	15	160	410	1700	270	35
FLUORENE	-	6.8 J	0.61 U	0.68 U	13	120	23	0.61 U
INDENO(1,2,3-CD)PYRENE	NA[3]	71	12	44	190	430	97	7.6 J
NAPHTHALENE	-	10	13	1 U	12	100	13	0.95 U
PHENANTHRENE	-	79	6.4 J	44	180	1000	190	17
PYRENE	-	150	14	140	410	1500	240	33

Notes:

1. Results shaded black in bold white font exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-6
Summary of Soil Verification Samples - Block D Area F
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME		D-VB-F-4-2	D-VB-F-5-2	D-VB-F-6-2	D-VB-F-7-2	D-VB-F-8-2	D-VB-F-9-2	D-VB-F-10-2
LAB ID		240-54724-4	240-54724-5	240-54373-1	240-54724-6	240-54724-7	240-54724-8	240-54467-2
SAMPLE DATE	RG	08/25/2015	08/25/2015	08/14/2015	08/25/2015	08/25/2015	08/25/2015	08/18/2015
DUP OF		--	--	--	--	--	--	--
SAMPLE DEPTH (FT)		2	2	2	2	2	2	2
PAH (UG/KG)								
ACENAPHTHENE	-	0.92 U	0.89 U	0.91 U	0.85 U	9.2	0.9 U	4.4 J
ACENAPHTHYLENE	-	0.42 U	0.41 U	0.42 U	0.39 U	4.4 J	0.41 U	6.1 J
ANTHRACENE	-	0.95 U	4.5 J	0.94 U	5.6 J	18	0.92 U	12
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	0.78 U	33	0.77 U	44	91	0.76 U	61
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	0.78 U	33	0.77 U	44	91	0.76 U	61
BENZO(A)ANTHRACENE	NA[3]	0.76 U	22	0.76 U	25	54	0.75 U	43
BENZO(A)PYRENE	NA[3]	0.78 U	25	0.77 U	30	62	0.76 U	47
BENZO(B)FLUORANTHENE	NA[3]	0.72 U	39	0.71 U	37	78	0.7 U	58
BENZO(G,H,I)PERYLENE	-	0.42 U	19	0.42 U	26	39	0.41 U	36
BENZO(K)FLUORANTHENE	NA[3]	0.82 U	14	0.82 U	15	36	0.81 U	32
CHRYSENE	NA[3]	1.3 U	32	1.3 U	26	67	1.3 U	52
DIBENZO(A,H)ANTHRACENE	NA[3]	0.8 U	0.77 U	0.79 U	5.7 J	12	0.78 U	0.7 U
FLUORANTHENE	-	0.67 U	41	0.66 U	36	110	0.65 U	81
FLUORENE	-	0.64 U	0.62 U	0.64 U	0.6 U	8.5	0.63 U	6.6 J
INDENO(1,2,3-CD)PYRENE	NA[3]	0.42 U	16	0.42 U	18	35	0.41 U	31
NAPHTHALENE	-	6.9 J	9.1	0.99 U	8.4	49	0.97 U	12
PHENANTHRENE	-	0.89 U	15	0.88 U	19	67	0.86 U	47
PYRENE	-	0.53 U	38	0.53 U	34	92	0.52 U	76

Notes:

1. Results shaded black in bold white font exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-6
Summary of Soil Verification Samples - Block D Area F
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME		D-VB-F-11-2	D-VB-F-12-2	D-VB-F-13-2	D-VB-F-14-2	D-VB-F-15-2	D-VB-F-16-2	D-VB-F-17-2
LAB ID		240-54373-2	240-54373-3	240-54467-3	240-54467-4	240-54467-5	240-54373-4	240-54373-5
SAMPLE DATE	RG	08/14/2015	08/14/2015	08/18/2015	08/18/2015	08/18/2015	08/14/2015	08/14/2015
DUP OF		--	--	--	--	--	--	--
SAMPLE DEPTH (FT)		2	2	2	2	2	2	2
PAH (UG/KG)								
ACENAPHTHENE	-	0.82 U	59	510	0.9 U	7.1 J	0.86 U	0.88 U
ACENAPHTHYLENE	-	0.38 U	7.2 J	71	0.42 U	0.4 U	0.4 U	0.41 U
ANTHRACENE	-	0.84 U	90	1400	0.93 U	15	0.88 U	0.9 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	20	300	**4100**	8.2	75	0.72 U	18
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	20	300	**4100**	7.8	75	0.72 U	17
BENZO(A)ANTHRACENE	NA[3]	13	210	2900	0.75 U	48	0.71 U	16
BENZO(A)PYRENE	NA[3]	15	210	2700	5.8 J	50	0.72 U	13
BENZO(B)FLUORANTHENE	NA[3]	26	280	3200	6.4 J	65	0.67 U	21
BENZO(G,H,I)PERYLENE	-	11	92	2000	19	43	0.4 U	6.6 J
BENZO(K)FLUORANTHENE	NA[3]	6.2 J	110	1600	0.81 U	29	0.77 U	8.9
CHRYSENE	NA[3]	20	230	2900	11	49	1.2 U	18
DIBENZO(A,H)ANTHRACENE	NA[3]	0.71 U	34	580	0.78 U	10	0.75 U	0.77 U
FLUORANTHENE	-	22	440	6300	4.1 J	86	0.62 U	36
FLUORENE	-	0.57 U	37	570	0.63 U	7.8	0.6 U	0.61 U
INDENO(1,2,3-CD)PYRENE	NA[3]	10	100	1700	13	35	0.4 U	6.6 J
NAPHTHALENE	-	4.4 J	17	47 J	0.97 U	7.3 J	0.93 U	0.95 U
PHENANTHRENE	-	11	330	4700	0.87 U	45	0.83 U	14
PYRENE	-	24	370	5200	4.7 J	75	0.5 U	30

Notes:

1. Results shaded black in bold white font exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-6
Summary of Soil Verification Samples - Block D Area F
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME		D-VB-F-18-2	D-VB-F-19-2	D-VB-F-20-2	D-VB-F-21-3	D-VB-F-21-3-AVG	D-DUP04-081415	D-VB-F-22-2
LAB ID		240-54373-6	240-54467-6	240-54676-8	240-54373-7	--	240-54373-9	240-54373-8
SAMPLE DATE	RG	08/14/2015	08/18/2015	08/24/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015
DUP OF		--	--	--	--	--	D-VB-F-21-3	--
SAMPLE DEPTH (FT)		2	2	2	3	3	3	2
PAH (UG/KG)								
ACENAPHTHENE	-	6.8 J	0.88 U	0.9 U	0.93 U	0.935 U	0.94 U	0.91 U
ACENAPHTHYLENE	-	0.43 U	0.41 U	0.41 U	0.43 U	0.43 U	0.43 U	9.6
ANTHRACENE	-	20	5.9 J	0.92 U	0.96 U	0.96 U	0.96 U	44
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	130	17	21	0.78 U	5.0	9.6	340
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	130	17	21	0.78 U	4.8	9.2	340
BENZO(A)ANTHRACENE	NA[3]	110	14	15	0.77 U	5.0	9.6	170
BENZO(A)PYRENE	NA[3]	88	10	14	0.78 U	3.7	7 J	250
BENZO(B)FLUORANTHENE	NA[3]	130	36	36	0.72 U	6.2	12	300
BENZO(G,H,I)PERYLENE	-	52	22	14	0.43 U	0.43 U	0.43 U	110
BENZO(K)FLUORANTHENE	NA[3]	59	12	12	0.83 U	2.4	4.3 J	140
CHRYSENE	NA[3]	120	42	30	1.3 U	4.3	8 J	340
DIBENZO(A,H)ANTHRACENE	NA[3]	16	0.77 U	0.78 U	0.81 U	0.815 U	0.82 U	32
FLUORANTHENE	-	260	34	23	0.67 U	10.7	21	160
FLUORENE	-	6.3 J	0.62 U	0.63 U	0.65 U	0.65 U	0.65 U	5.2 J
INDENO(1,2,3-CD)PYRENE	NA[3]	46	17	13	0.43 U	0.43 U	0.43 U	100
NAPHTHALENE	-	5.8 J	4.1 J	0.97 U	1 U	1 U	1 U	16
PHENANTHRENE	-	120	15	10	0.89 U	3.1	5.8 J	45
PYRENE	-	210	30	33	0.54 U	9.1	18	160

Notes:

1. Results shaded black in bold white font exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-6
Summary of Soil Verification Samples - Block D Area F
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	RG	D-VB-F-23-2 240-54676-9 08/24/2015 -- 2	D-VB-F-23-2-AVG -- 08/24/2015 -- 2	D-DUP06-082415 240-54676-13 08/24/2015 D-VB-F-23-2 2	D-VB-F-24-2 240-54676-10 08/24/2015 -- 2	D-VB-F-25-2 240-54676-11 08/24/2015 -- 2
PAH (UG/KG)						
ACENAPHTHENE	-	0.93 U	0.93 U	0.92 U	0.89 U	16
ACENAPHTHYLENE	-	0.43 U	0.43 U	0.42 U	0.41 U	0.39 U
ANTHRACENE	-	0.95 U	0.95 U	0.94 U	0.91 U	23
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	0.78 U	0.78 U	0.77 U	0.75 U	110
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	0.78 U	0.78 U	0.77 U	0.75 U	110
BENZO(A)ANTHRACENE	NA[3]	0.77 U	0.77 U	0.76 U	0.73 U	75
BENZO(A)PYRENE	NA[3]	0.78 U	0.78 U	0.77 U	0.75 U	74
BENZO(B)FLUORANTHENE	NA[3]	0.72 U	0.72 U	0.71 U	0.69 U	100
BENZO(G,H,I)PERYLENE	-	0.43 U	0.43 U	0.42 U	0.41 U	53
BENZO(K)FLUORANTHENE	NA[3]	0.83 U	0.83 U	0.82 U	0.79 U	39
CHRYSENE	NA[3]	1.3 U	1.3 U	1.3 U	1.3 U	79
DIBENZO(A,H)ANTHRACENE	NA[3]	0.81 U	0.81 U	0.8 U	0.77 U	13
FLUORANTHENE	-	0.67 U	0.67 U	0.66 U	0.64 U	160
FLUORENE	-	0.65 U	0.65 U	0.64 U	0.62 U	9.8
INDENO(1,2,3-CD)PYRENE	NA[3]	0.43 U	0.43 U	0.42 U	0.41 U	43
NAPHTHALENE	-	1 U	1.00 U	0.99 U	0.96 U	5.8 J
PHENANTHRENE	-	0.89 U	0.89 U	0.88 U	0.85 U	95
PYRENE	-	0.54 U	2.5	4.7 J	0.51 U	140

Notes:

1. Results shaded black in bold white font exceed the RG.

2. VB samples were collected for informational purposes only. Results not presented on figures.

[1] Calculated using one-half the detection limit for non-detected results.

[2] Calculated using a value of zero for non-detected results.

[3] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.

J: Estimated

U: Non-detect

NA: Not applicable/not available

RG: Remedial goal

--: No duplicate collected

-: No remedial goal established for this compound

Table 4-7
Summary of Soil Verification Samples - Block D Area F1
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	RG	D-VS-F1-1-2 240-54590-2 08/19/2015 -- 2	D-VS-F1-2-2 240-54590-1 08/19/2015 -- 2	D-VS-F1-3-2 240-54676-7 08/24/2015 -- 2	D-VS-F1-4-2 240-54676-1 08/24/2015 -- 2	D-VS-F1-4-2-AVG -- 08/24/2015 -- 2	D-DUP05-082415 240-54676-6 08/24/2015 D-VS-F1-4-2 2	D-VB-F1-1-3 240-54676-2 08/24/2015 -- 3	D-VB-F1-2-3 240-54590-3 08/19/2015 -- 3	D-VB-F1-3-3 240-54590-4 08/19/2015 -- 3
PAH (UG/KG)										
ACENAPHTHENE	-	160	9.5	10	0.85 U	0.85 U	0.85 U	5.9 J	0.88 U	0.88 U
ACENAPHTHYLENE	-	22 J	9.2	0.42 U	0.39 U	0.39 U	0.39 U	6.3 J	0.41 U	0.41 U
ANTHRACENE	-	350	17	9.7	0.87 U	0.87 U	0.87 U	16	0.9 U	0.91 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[1]	2900	1400	140	58	3.6	2.5	1.3	110	1.2	1.2
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[2]	2900	1400	140	57	2.8	1.7	0.56	110	0.41	0.4
BENZO(A)ANTHRACENE	NA[3]	1100	69	40	8.2	4.3	0.7 U	65	0.73 U	0.73 U
BENZO(A)PYRENE	NA[3]	990	88	44	0.72 U	0.72 U	0.72 U	72	0.74 U	0.74 U
BENZO(B)FLUORANTHENE	NA[3]	1400	150	65	15	10	5.5 J	120	4.1 J	4 J
BENZO(G,H,I)PERYLENE	-	500	69	31	6 J	3.1	0.39 U	67	0.41 U	0.41 U
BENZO(K)FLUORANTHENE	NA[3]	560	53	22	10	5.2	0.76 U	38	0.79 U	0.79 U
CHRYSENE	NA[3]	1200	97	48	15	10	5.2 J	81	1.3 U	1.3 U
DIBENZO(A,H)ANTHRACENE	NA[3]	150	20	0.79 U	0.74 U	0.74 U	0.74 U	17	0.76 U	0.77 U
FLUORANTHENE	-	3000	110	63	19	13	7 J	120	6 J	4.9 J
FLUORENE	-	120	8.2	0.63 U	0.59 U	0.59 U	0.59 U	8.6	0.61 U	0.62 U
INDENO(1,2,3-CD)PYRENE	NA[3]	470	61	26	4.1 J	2.1	0.39 U	56	0.41 U	0.41 U
NAPHTHALENE	-	39	6.7 J	6.1 J	5.3 J	2.9	0.92 U	14	0.95 U	0.95 U
PHENANTHRENE	-	1400	63	28	6 J	3.2	0.82 U	52	0.84 U	4.6 J
PYRENE	-	2400	95	61	16	11	6.8 J	110	5.7 J	4.5 J

Table 4-7
Summary of Soil Verification Samples - Block D Area F1
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	RG	D-VB-F1-4-3 240-54676-3 08/24/2015 -- 3	D-VB-F1-5-3 240-54676-4 08/24/2015 -- 3	D-VB-F1-6-3 240-54590-5 08/19/2015 -- 3	D-VB-F1-7-3 240-54590-6 08/19/2015 -- 3	D-VB-F1-8-3 240-54590-7 08/19/2015 -- 3	D-VB-F1-9-3 240-54590-8 08/19/2015 -- 3	D-VB-F1-10-3 240-54676-5 08/24/2015 -- 3
PAH (UG/KG)								
ACENAPHTHENE	-	14	0.9 U	9.4	0.9 U	0.88 U	5.2 J	17
ACENAPHTHYLENE	-	9.8	0.41 U	6.9 J	0.42 U	0.41 U	0.4 U	15
ANTHRACENE	-	29	7.5 J	23	0.93 U	0.91 U	10	60
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[(1)]	2900	120	1.7	110	1.4	0.74 U	58	320
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[(2)]	2900	120	0.95	110	0.53	0.74 U	58	320
BENZO(A)ANTHRACENE	NA[(3)]	87	4.3 J	80	0.75 U	0.73 U	39	170
BENZO(A)PYRENE	NA[(3)]	82	0.76 U	70	0.76 U	0.74 U	39	210
BENZO(B)FLUORANTHENE	NA[(3)]	110	5.1 J	150	5.2 J	0.69 U	61	290
BENZO(G,H,I)PERYLENE	-	57	0.41 U	48	0.42 U	0.41 U	20	180
BENZO(K)FLUORANTHENE	NA[(3)]	58	0.81 U	49	0.81 U	0.79 U	21	110
CHRYSENE	NA[(3)]	86	5.8 J	130	6.3 J	1.3 U	43	300
DIBENZO(A,H)ANTHRACENE	NA[(3)]	13	0.78 U	16	0.79 U	0.77 U	6.5 J	51
FLUORANTHENE	-	200	63	160	5.6 J	0.64 U	68	270
FLUORENE	-	16	0.63 U	9.9	0.63 U	0.62 U	0.6 U	18
INDENO(1,2,3-CD)PYRENE	NA[(3)]	51	0.41 U	47	0.42 U	0.41 U	20	150
NAPHTHALENE	-	10	0.97 U	14	0.98 U	0.95 U	5 J	19
PHENANTHRENE	-	110	5.8 J	95	4.1 J	0.85 U	38	150
PYRENE	-	190	48	140	6.3 J	4.1 J	59	270

Notes:
1. No results exceed the RG.
2. VB samples were collected for informational purposes only. Results not presented on figures.

[(1)] Calculated using one-half the detection limit for non-detected results.
[(2)] Calculated using a value of zero for non-detected results.
[(3)] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
J: Estimated
U: Non-detect
NA: Not applicable/not available
RG: Remedial goal
--: No duplicate collected
-: No remedial goal established for this compound

Table 4-8
Post-Excavation Residual Risk Analysis (All COPCs) - Block D Surface Soil and Subsurface Soil
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

COPC	EPC (mg/kg)	Cancer Risk Level	Hazard Quotient
Surface Soil			
BaPEq	0.408	$1x10^{-6}$	--
Naphthalene	0.039	$2x10^{-9}$	0.00005
Lead	15	--	--
Nickel	9.25	$6x10^{-11}$	0.0006
Hexavalent Chromium	0.974	$4x10^{-7}$	0.0006
Total Cancer Risk or Hazard Index	--	**$1x10^{-6}$**	**0.001**
Subsurface Soil			
BaPEq	0.296	$7x10^{-7}$	--
Naphthalene	0.045	$2x10^{-9}$	0.00006
Mercury	0.181	--	0.0006
Total Cancer Risk or Hazard Index	--	**$7x10^{-7}$**	**0.0007**

Notes:
BaPEq: Benzo(a)pyrene equivalent concentration
EPC: Exposure point concentration
COPC: chemcial(s) of potential concern
mg/kg: milligrams(s) per kilogram
--: not applicable.



LEGEND:

- VERIFICATION SIDEWALL SAMPLE LOCATION
- VERIFICATION BASE SAMPLE LOCATION (SAMPLE IDENTIFICATION LABELS PRESENTED ON FIGURE 4-2)
- EXCAVATION BOUNDARY 2-FOOT DEPTH
- EXCAVATION BOUNDARY 3-FOOT DEPTH
- ASPHALT PAVEMENT
- CONTOUR LINE
- BLOCK BOUNDARY
- 100-FT FLOOD PLAIN LINE
- SD — STORM DRAIN
- GAS — GAS LINE
- JUNCTION BOX
- MH — MANHOLE

GENERAL NOTES:

1. EXCAVATION BOUNDARIES BASED ON 100% SOIL REMEDIAL ACTION DESIGN (TETRA TECH INC., 2015)
2. SIDEWALL VERIFICATION SAMPLES WERE COLLECTED EVERY 100-FEET.
3. BASE VERIFICATION SAMPLES WERE COLLECTED EVERY 625 SQUARE FOOT.

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
VERIFICATION SIDEWALL SAMPLING LOCATIONS
BLOCK D

DATE:	03/01/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

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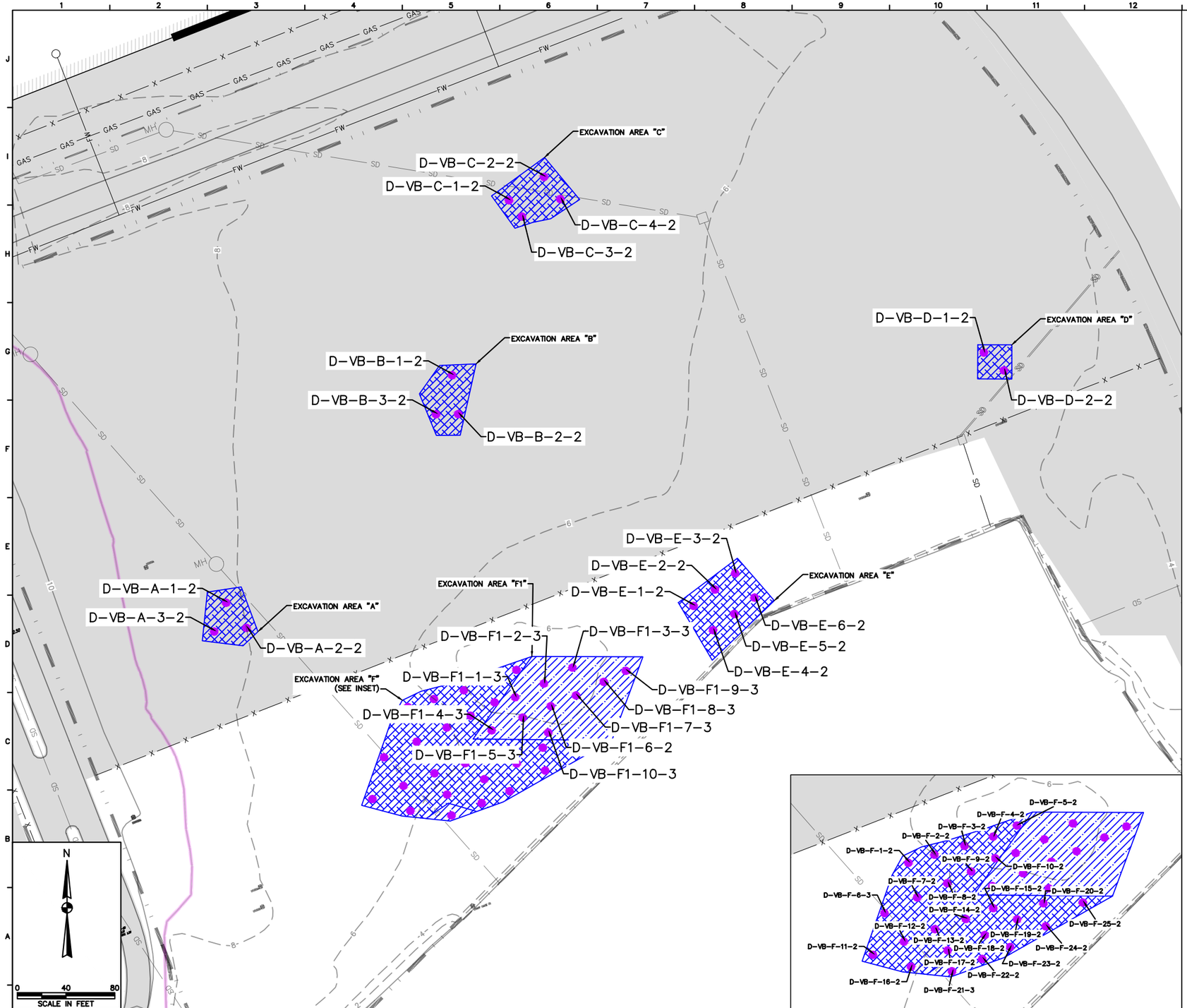
FIGURE 4-1

K:\CADD\MRC\112IC07483\Construction Completion\Block D\AS BUILT FIGURES-Block D.dwg IVANNA.GOLDSBERRY 3/1/2016 12:56:25 PM



LEGEND:

- VERIFICATION BASE SAMPLE LOCATION
- EXCAVATION BOUNDARY 2-FOOT DEPTH
- EXCAVATION BOUNDARY 3-FOOT DEPTH
- ASPHALT PAVEMENT
- CONTOUR LINE
- BLOCK BOUNDARY
- 100-FT FLOOD PLAIN LINE
- SD — STORM DRAIN
- GAS — GAS LINE
- JUNCTION BOX
- MH — MANHOLE

GENERAL NOTES:

1. EXCAVATION BOUNDARIES BASED ON 100% SOIL REMEDIAL ACTION DESIGN (TETRA TECH INC., 2015)
2. BASE VERIFICATION SAMPLES WERE COLLECTED EVERY 625 SQUARE FEET.
3. SIDEWALL VERIFICATION SAMPLES ARE PRESENTED ON FIGURE 4-1

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
VERIFICATION BASE SAMPLING LOCATIONS
BLOCK D

DATE:	03/01/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

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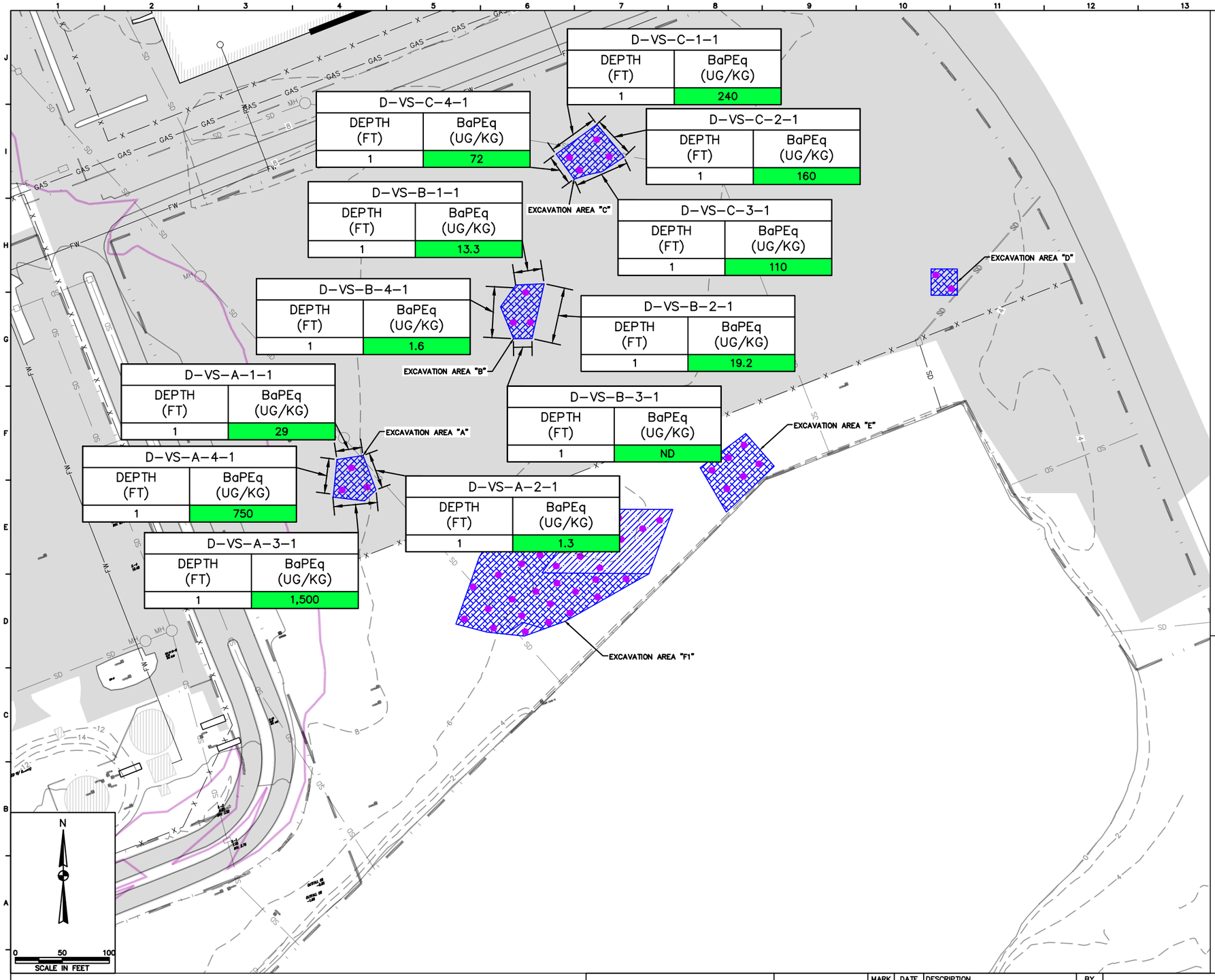
FIGURE 4-2

K:\CADD\MRC\112IC07483\Construction Completion\Block D\AS BUILT FIGURES-Block D.dwg IVANNA.GOLDSBERRY 3/1/2016 12:56:25 PM



LEGEND:

- VERIFICATION SIDEWALL SAMPLE LOCATION
- VERIFICATION BASE SAMPLE LOCATION
- EXCAVATION BOUNDARY 2–FOOT DEPTH
- EXCAVATION BOUNDARY 3–FOOT DEPTH
- ASPHALT PAVEMENT
- CONTOUR LINE
- BLOCK BOUNDARY
- 100–FT FLOOD PLAIN LINE
- SD — STORM DRAIN
- GAS — GAS LINE
- JUNCTION BOX
- MH — MANHOLE

GENERAL NOTES:

1. EXCAVATION BOUNDARIES BASED ON 100% SOIL REMEDIAL ACTION DESIGN (TETRA TECH INC., 2015B)
2. SIDEWALL VERIFICATION SAMPLES WERE COLLECTED AT A FREQUENCY OF ONE EVERY 100–FEET.
3. BASE VERIFICATION SAMPLES WERE COLLECTED AT A FREQUENCY OF ONE EVERY 625 SQUARE FEET FOR INFORMATIONAL PURPOSES ONLY.
4. SAMPLES WERE ANALYZED FOR POLYCYCLIC AROMATIC HYDROCARBONS BY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) SW–846 METHOD 8270D.

TETRA TECH
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MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
VERIFICATION SIDEWALL SAMPLING RESULTS
BLOCK D EXCAVATION AREAS A, B, AND C

DATE:	03/01/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

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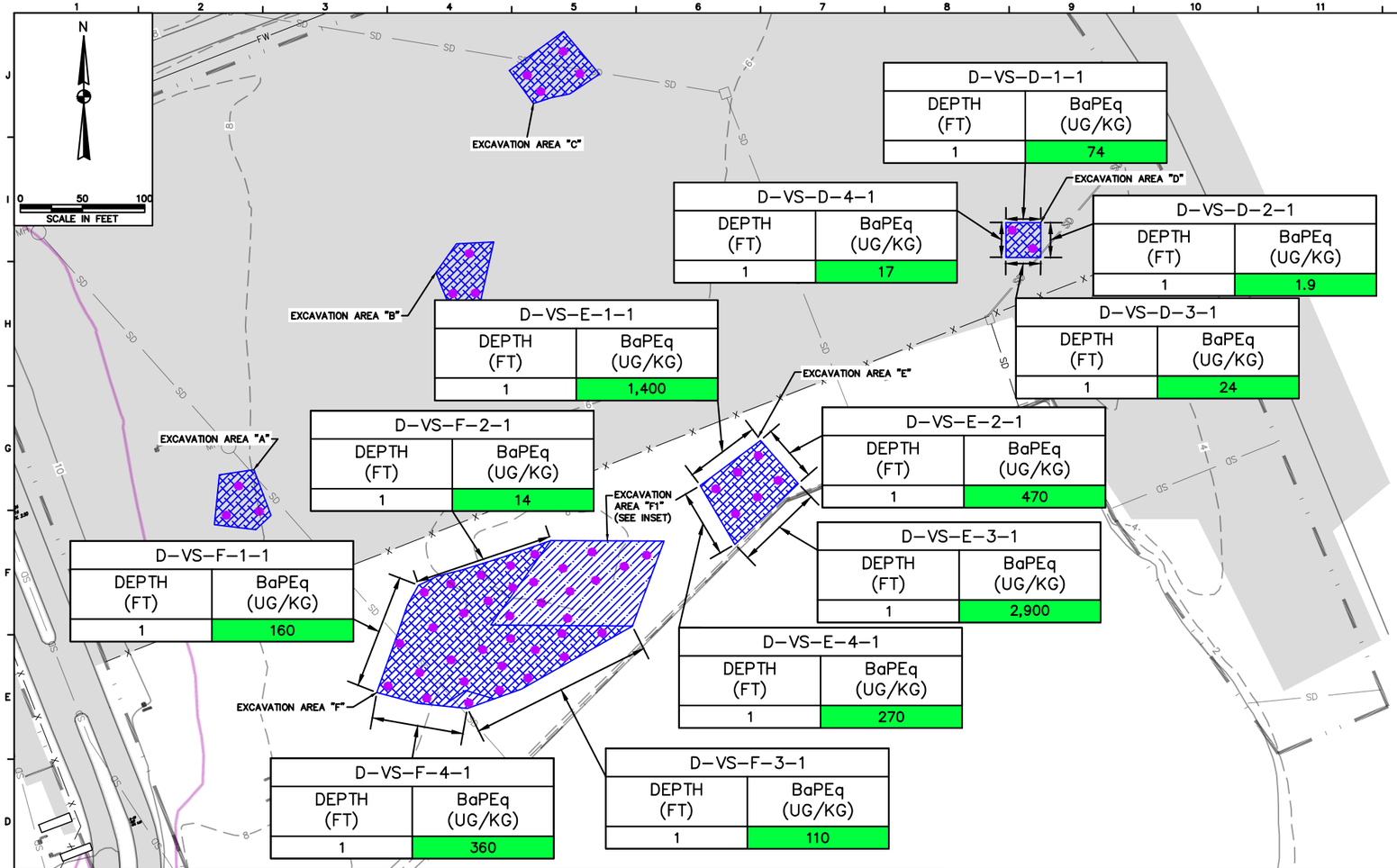
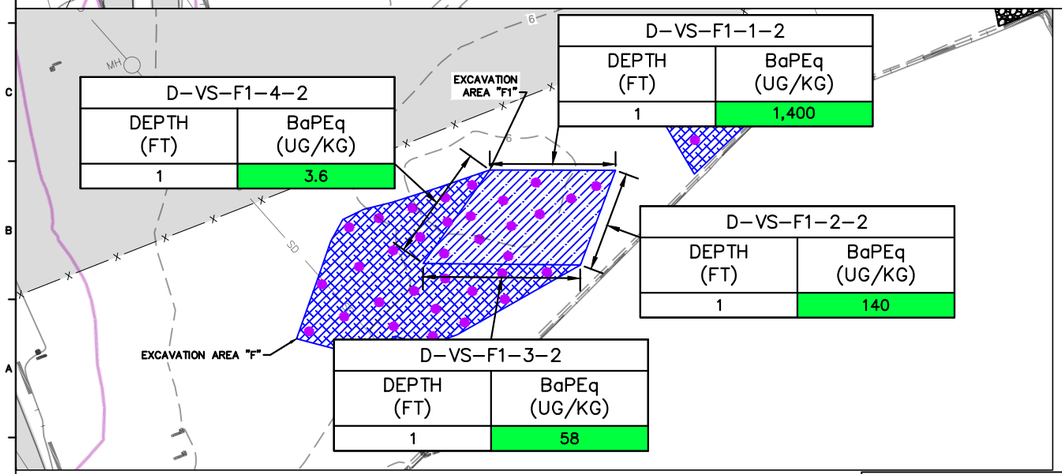
FIGURE 4–3

K:\CADD\MRC\112IC07483\Construction Completion\Block D\AS BUILT FIGURES–Block D.dwg IVANNA.GOLDSBERRY 3/1/2016 12:56:25 PM





GENERAL NOTES:

1. EXCAVATION BOUNDARIES BASED ON 100% SOIL REMEDIAL ACTION DESIGN (TETRA TECH INC., 2015B)
2. SIDEWALL VERIFICATION SAMPLES WERE COLLECTED AT A FREQUENCY OF ONE EVERY 100-FEET.
3. BASE VERIFICATION SAMPLES WERE COLLECTED AT A FREQUENCY OF ONE EVERY 625 SQUARE FEET FOR IFORMATIONAL PURPOSES ONLY.
4. SAMPLES WERE ANALYZED FOR POLYCYCLIC AROMATIC HYDROCARBONS BY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) SW-846 METHOD 8270D.

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
VERIFICATION SIDEWALL SAMPLING LOCATIONS
BLOCK D EXCAVATION AREAS D, E, F, AND F1

DATE:	03/01/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

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FIGURE 4-4

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Section 5
Sheen Investigation and Storm-Drain Pipe Repair

On June 22, 2015, a team of ecologists surveyed Cow Pen Creek and Dark Head Cove to gather the data necessary to evaluate impacts that might occur during future sediment remediation. The team noticed a small sheen on the water behind the bulkhead near the corner of Tax Blocks (Blocks) D and D Panhandle. The sheen was tracked to a small oily breakout in an eroded area behind the bulkhead. The eroded area was associated with a damaged storm-drain pipe, and was identified for repair in the *100% Soil Remedial Action Design for Blocks D, D Panhandle, F, G, and H* (Tetra Tech, Inc. [Tetra Tech], 2015b).

Lockheed Martin Corporation notified the Maryland Department of the Environment (MDE) about the situation via electronic mail on June 22, 2015, and subsequently submitted the *Block D Remedial Action Plan (RAP) Addendum 2*. This addendum was approved by MDE in August 2015, and included protocols to investigate the source of the sheen when the eroded area and storm-drain pipe were repaired in conjunction with the soil remedy at Block D (Tetra Tech, 2015c). The storm-drain repair does not affect the achievement of the remedial action objective (RAO) described in Section 4.3. Middle River Complex (MRC) utility drawings identify a 36-inch storm-drain pipe that connects to a junction box in Block D, and subsequently leads to Outfall 9OF001 (as designated in the sediment-remediation design). The pipe was not visible in the eroded area during previous inspections, but was believed to have been corroded, collapsed, or washed out of the eroded area. Repairs conducted during the Block D remedial action included locating competent storm-drain pipe, replacing the missing piece leading to the outfall, and backfilling the eroded area. Utility clearance, permitting, and site setup was conducted as described in Section 2 before the repair began. A description of the sheen investigation and storm-drain pipe repair is in the following sections.

5.1 SHEEN INVESTIGATION

On October 7, 2015, per the approved Block D RAP Addendum 2, soil was excavated at the sheen location and stockpiled on polyethylene sheeting. A photoionization detector (PID) was used while excavating to evaluate the presence of volatile organic compounds; no elevated PID readings above background conditions were detected. Tie rods and wood anchors from the bulkhead tieback system were in the excavation area immediately beneath the soil, and were clearly the source of the sheen.

Sampling results from the initial sheen sample presented in the Block D RAP addendum are consistent with preservative used to protect wood anchor pilings and tie rods. The tieback system, which is buried beneath the soil all along the bulkhead, maintains the integrity of the bulkhead. The soil above the tieback system would prevent direct exposure of the wood anchor piling preservative to industrial workers. Migration of oil to surface water would not be expected since oil transport was observed to be blocked by the soil and has not been previously observed along the bulkhead alignment. These findings indicate no additional excavation or remedial action is required at this time.

5.2 EXCAVATION TO LOCATE STORM-DRAIN PIPE

Before test-pit excavation and repairs began, black-stained soil and sediment were observed behind the bulkhead wall. This stained soil (totaling approximately 18 tons) was excavated and stored in a roll-off box pending characterization and transport for off-site disposal. Details regarding waste characterization and off-site disposal are in Section 6.2.

Test pits were excavated in October 2015 to determine if any viable sections of the 36-inch pipe were present between the bulkhead and the junction box. Competent 36-inch inside-diameter corrugated-steel pipe was located approximately 20 feet downstream of the junction box, at a depth of four feet below ground surface. An inflatable temporary plug was inserted into the 36-inch pipe downstream of the junction box to minimize flow in the pipe during repairs. A stormwater bypass was approved by a representative of the Baltimore County Department of Permits, Approvals, and Inspections, and was installed in the junction box to pump water from the box into Dark Head Cove.

Visually contaminated soil was observed in test-pit excavations parallel to the storm-drain alignment where the 36-inch pipe had been uncovered. This contamination appeared to be associated with the bulkhead wall tieback system, and was similar in nature to what was found in the sheen investigation area. The spacing of the wood pile-anchors along the alignment precluded placement of a trench box, and prevented sloping needed in the excavation to safely install the storm drain. Given these conditions, sheet piling was installed around the storm-drain pipe location to provide trench stability, limit potential migration of contaminants into the work area, and protect the tieback system during excavation and repair. Approximately 18 tons of visually contaminated soil and debris were excavated and stockpiled following installation of the sheet piling, to await characterization and transport off-site for disposal. Details regarding waste characterization and off-site disposal can be found in Section 6.2.

Approximately 286 tons of soil were excavated from within the sheet piling so the pipe could be replaced. Concrete and other debris from the eroded area were also removed to facilitate repairs. Care was taken to avoid damaging the tie rods and wooden pile-anchors encountered during excavation and repair.

5.3 PIPE PLACEMENT AND COUPLING

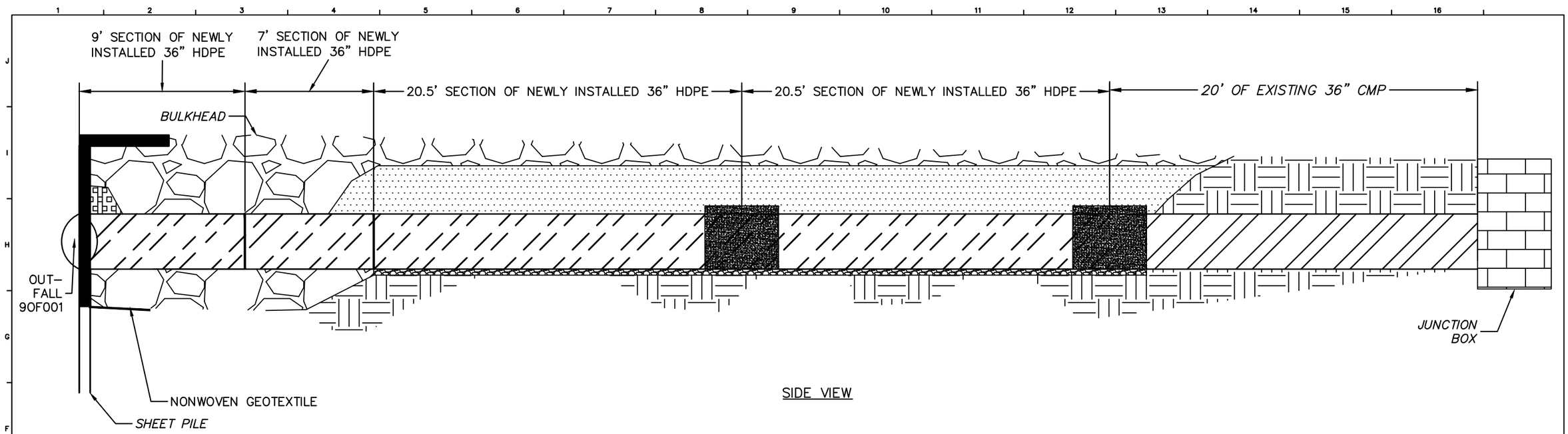
Approximately four inches of coarse aggregate (No. 2 stone) was placed as pipe bedding at the base of the pipe excavation, between the sheet piling. Two sections of 20.5-foot 36-inch high-density polyethylene (HDPE) corrugated pipe were placed into the excavation and connected to the existing 36-inch corrugated steel pipe. New HDPE piping was connected to the existing metal pipe by overlapping the joint section (eight-inch overlap), packing the connection with oakum, and using self-tapping screws to connect the two sections.

The two HDPE piping sections were connected using manufactured slip joints that snap together with rubber O-rings. Self-tapping screws were installed after the sections were snapped together. Geotextile was then wrapped around the connections and the joints were covered with three cubic yards of concrete slurry to provide anti-flotation anchoring and to seal the joints. An additional 15-foot section of HDPE was then connected using the manufactured slip joints and rubber O-rings. This joint was wrapped in geotextile, but a concrete anti-flotation anchor was not installed.

A gap between the bulkhead wall and the HDPE pipe remained after installation of the three pipe sections. The initial attempt to run an additional six-feet of HDPE through the existing penetration in the bulkhead failed due to constraints from bulkhead tiebacks, sheet piling used to contain the excavation area, and the constant infiltration of tidal waters from Dark Head Cove. During a later effort, the 15-foot section of HDPE was cut back to an approximately seven-foot length. A temporary nine-foot section of HDPE was then connected to the seven-foot section of pipe and successfully penetrated the bulkhead wall. The corrugation of this final nine-foot section had to be trimmed to fit into the existing outfall hole. The pipe sections were connected using a manufactured slip joint and O-ring; however, the final alignment was slightly off, due to the angle of the outfall hole. Geotextile was wrapped around the pipe connection and riprap was used to seal the annular space between the pipe and the opening of the bulkhead wall. The last nine-foot section of pipe will require replacement at a future date when the bulkhead is upgraded as part of the pending sediment remediation. Figure 5-1 depicts the as-built configuration of the storm-drain repair.

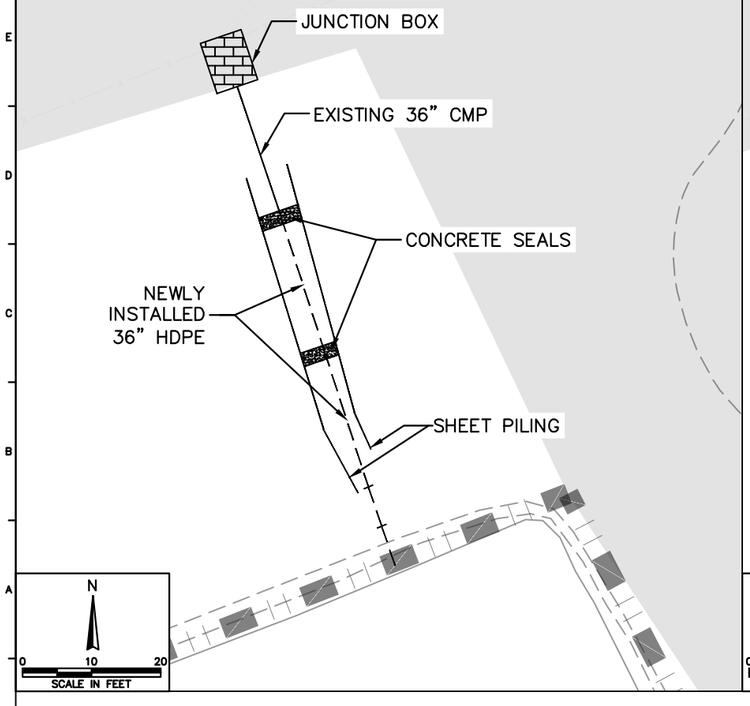
5.4 BACKFILLING THE ERODED AREA

The storm-drain-pipe repair area between the sheet piles was backfilled with approximately 50 inches of No. 57 stone. The eroded soil outside of the sheet piles was leveled (using an excavator) to create an even elevation, then backfilled with approximately five feet of No. 2 stone to allow for water infiltration. A geotextile fabric was placed adjacent to the existing bulkhead before backfilling to limit migration of backfill into Dark Head Cove. The sheet piling that had been installed to facilitate the pipe installation was left in place (see Figure 5-1).

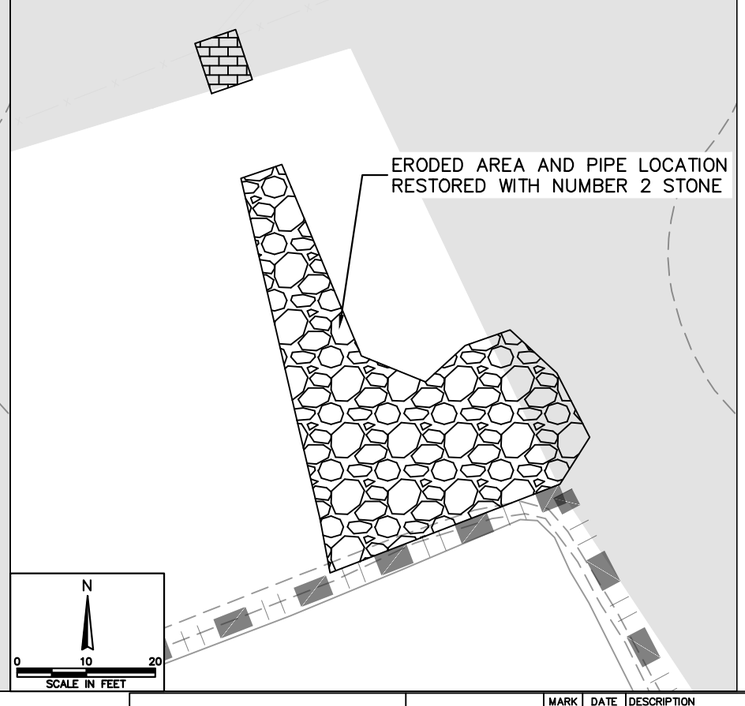


SIDE VIEW

TOP VIEW – PIPE REPAIR



TOP VIEW – SITE RESTORATION



LEGEND:

- NUMBER 2 STONE
- NUMBER 57 STONE
- CONCRETE SLURRY (3–YDS)
- NUMBER 2 STONE USED AS PIPE BEDDING
- *EXISTING PIPE*
- NEWLY INSTALLED PIPE
- RIP–RAP
- PIPE COUPLING

TETRA TECH
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GERMANTOWN, MD 20874
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MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
STORM DRAIN REPAIR AS–BUILT
BLOCK D

DATE:	06/01/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

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FIGURE 5–1

K:\CADD\MRC\112IC07483\Construction Completion\Block D\AS BUILT FIGURES–Block D.dwg IVANNA.GOLDSBERRY 4/8/2016 1:48:45 PM

Section 6
Transportation and Disposal

Transportation and disposal/recycling for the Tax Block (Block) D soil remedial action included the following waste streams:

- benzo(a)pyrene-equivalent (BaPEq)-impacted soil
- lead-impacted soil and debris
- concrete
- general refuse

A predefined truck-traffic route was established before construction began, and was executed during transportation and disposal (recycling) activities. This route minimized inconvenience to the public, while ensuring safe conditions for roadway users (including pedestrians and bicyclists) and personnel in work zones.

6.1 IMPACTED SOIL EXCAVATED FROM THE REMEDIAL ACTION AREA

Before soil removal, waste characterization samples were collected from each excavation area at a frequency of one sample per 1,000 tons, as directed by the disposal facility. Therefore, one sample was collected from each removal area. All samples were collected and analyzed for total petroleum (TPH)-hydrocarbon gasoline-range (GRO) and diesel-range organics (DRO) by United States Environmental Protection Agency (USEPA) SW-846 Method 8015/9017B, for volatile organic compounds (VOCS) by USEPA SW-846 Method 8260, for polychlorinated biphenyls (PCBs) by USEPA SW-846 Method 8082, and for toxicity characteristic leaching procedure (TCLP) metals by USEPA SW-846 Method 1311/6010, in accordance with recycling facility requirements. Sampling results indicated that all excavation areas were suitable for recycling at Soil Safe, Inc. (Soil Safe). Copies of the laboratory and validation reports are in Appendix F.

Upon receipt of the sampling results, Profile W5-4105 was prepared to support disposal-facility acceptance of the impacted soil. Profile W5-4105 included transportation provided by the disposal

facility, and was submitted and approved by the disposal facility in July 2015. Copies of the waste profile and approval sheet(s) are in Appendix D.

Impacted soil was loaded into tri-axle dump trucks for transport to Soil Safe, in Brandywine, Maryland. Each truck had appropriate licensing, registration, and placarding, and was tarped and inspected before and after loading to ensure that it was in suitable condition for road transport. A uniform shipping-manifest was completed for each load. Two hundred and one dump-truck loads of impacted soil were sent to the recycling facility for the Block D remediation. Approximately 5,028 tons of soil were transported to Soil Safe, with each truck carrying an average of 25 tons.

6.2 SOIL AND DEBRIS FROM STORM-DRAIN PIPE REPAIR

As described in Section 5.2, visual signs of black-stained soil and sediment were observed behind the bulkhead wall before repairs began. This stained soil and debris were excavated and stored in a roll-off box pending characterization and transport for off-site disposal. Visibly contaminated soil was also observed during test-pit excavation, along the storm-drain alignment where the 36-inch pipe had been uncovered. The soil along the alignment was stockpiled on polyethylene sheeting and then covered. The following sections describe the waste characterization samples collected from both waste streams, and the transportation and disposal of the soil removed during the storm-drain pipe repair.

6.2.1 Lead-Impacted Hazardous Soil

A waste characterization sample (BDP-WC-36) was collected from the roll-off box storing the visually stained material. The sample was analyzed for TPH-GRO and TPH-DRO by USEPA SW-846 Method 8015/9017B, for VOCs by USEPA SW-846 Method 8260, for semi-volatile organic compounds (SVOCs) by USEPA SW-846 Method 8270, for PCBs by USEPA SW-846 Method 8082, for metals by USEPA SW-846 Method 6010, and for TCLP metals by USEPA SW-846 Method 1311/6010. Lead was detected in the TCLP analysis at a concentration of 140 milligrams per liter (mg/L), which exceeds the federal Resource Conservation and Recovery Act (RCRA) hazardous level (5 mg/L). TCLP metals results were validated and the hazardous lead result was verified. The laboratory and validation reports are in Appendix F.

Upon receipt of the sampling results, Profile CH1119687 was prepared to support Clean Harbors' acceptance of the hazardous lead-impacted soil. Profile CH1119687 included transportation

provided by the disposal facility, and was submitted and approved by Clean Harbors in December 2015. Copies of the waste profile and approval sheet are in Appendix D.

The roll-off bin containing the lead-impacted waste and debris was transported by Clean Harbors for disposal as hazardous waste. The truck hauling the bin had appropriate licensing, registration, and placarding, and was tarped and inspected before and after loading to ensure that it was in suitable condition for road transport. A uniform shipping-manifest was completed for the approximately 18 tons of soil removed off-site (see Appendix D).

6.2.2 Non-Hazardous Soil

The segregated soil from the storm-drain repair area was stockpiled on-site, and waste characterization samples were collected to determine the proper management of these soils. All samples were collected and analyzed for total petroleum (TPH)-hydrocarbon gasoline-range (GRO) and diesel-range organics (DRO) by United States Environmental Protection Agency (USEPA) SW-846 Method 8015/9017B, for volatile organic compounds (VOCS) by USEPA SW-846 Method 8260, for polychlorinated biphenyls (PCBs) by USEPA SW-846 Method 8082, and for toxicity characteristic leaching procedure (TCLP) metals by USEPA SW-846 Method 1311/6010. Sampling results indicated that all of this soil was suitable for recycling at Soil Safe. Copies of the laboratory and validation reports are in Appendix F.

Upon receipt of the sampling results, Profile W5-4303 was prepared to support disposal-facility acceptance of the impacted soil. Profile W5-4303 included transportation provided by the disposal facility, and was submitted and approved by the disposal facility in January 2016. Copies of the waste profile and approval sheet are in Appendix D.

Impacted soil was loaded into tri-axle dump trucks for transport to Soil Safe, in Brandywine, Maryland. Each truck had appropriate licensing, registration, and placarding, and was tarped and inspected before and after loading to ensure that it was in suitable condition for road transport. A uniform shipping-manifest was completed for each load. Ten dump-truck loads of impacted soil were sent to the recycling facility from the storm-drain repair area. Approximately 286 tons were transported to Soil Safe, with each truck carrying an average of 29 tons.

6.2.3 Concrete

Large pieces of concrete were observed in the storm-drain repair area before construction began. The load concrete was removed and transported off-site to Benjer, Inc. for recycling.

6.3 GENERAL REFUSE

General refuse generated during the project was collected in a dumpster that was emptied as necessary and disposed of at the local municipal-waste landfill. Dumpster service was provided by Waste Management of Maryland, Inc.

Section 7
Decontamination, Site Restoration, and Demobilization

The following sections detail final construction activities, including decontamination, site restoration, and demobilization.

7.1 DECONTAMINATION

Equipment that had contacted impacted soil was decontaminated before being removed from Tax Block (Block) D. Equipment that required decontamination included one excavator bucket, the bucket from the rubber-tired loader, and a holding tank for water. Decontamination consisted of removing residual soil from equipment-contact surfaces via scraping, rinsing, and scrubbing. Residual soil was containerized and disposed of off-site. Decontamination pads were built to capture decontamination water. That water was stored in frac tanks before being transported off-site for disposal. The wash and rinse water was disposed of at Clean Harbors, Inc. in Baltimore, Maryland.

7.2 SITE RESTORATION

Repair of the storm-drain pipe in Block D included backfilling the area with No. 2 stone to match the pre-existing grade and to allow for water infiltration. Block D excavation areas A through D were backfilled with select fill and capped with 6–8 inches of compacted CR-6 to match pre-existing grade, and restored using asphalt millings. Excavation areas E, F, and F1 were backfilled (as specified in Section 4) and capped with 6–8 inches of topsoil to match the pre-exiting grade, then hydro-seeded. A permanent seed mixture was used, per the 2008 Baltimore County Soil Conservation District/Maryland Aviation Administration vegetative-establishment specifications for projects within three miles of the Martin State Airport (Tetra Tech, 2015b). Seeding and seed-bed preparation were performed in accordance with the 2012 Maryland *Specifications for*

Soil Erosion and Sediment Control, Section G: "Vegetative Practices" (Tetra Tech, 2015b). Details about backfill in each excavation area are in Section 4.4.

7.3 DEMOBILIZATION

Equipment and personnel were demobilized from Block D as tasks were completed and services were no longer required. Erosion and sediment controls in Block D remain in place, and will continue until 90% of the vegetation has been established and removal is approved by the Baltimore County erosion and sediment control inspector. The project trailer and general refuse dumpster also remain in Block G, and will be used during soil remedial-actions in other tax blocks.

Section 8
References

1. Maryland State Highway Administration (MDSHA), 2008. *Standard Specifications for Construction and Materials*, Maryland State Highway Administration, 2008.

2. Tetra Tech, Inc. (Tetra Tech), 2012. *Human Health Risk Assessment for Blocks D, E, F, G, and H Soils, Lockheed Martin Middle River Complex, Middle River, Maryland.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. September.

3. Tetra Tech, Inc. (Tetra Tech), 2013. *Block D Remedial Action Plan. Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared for Lockheed Martin Corporation, Bethesda, Maryland by Tetra Tech, Inc., Germantown, Maryland. November.

4. Tetra Tech, Inc. (Tetra Tech), 2014. *Remedial Action Plan Addendum: Blocks D, D Panhandle, F, G, and H Design-Investigation Soil-Sampling Report, Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared for Lockheed Martin Corporation, Bethesda, Maryland by Tetra Tech, Inc., Germantown, Maryland. August.

5. Tetra Tech, Inc. (Tetra Tech), 2015a. *Block D Soil Remedial Action Plan Addendum 2: Sheen Observed at the Corner of Block D and Block D Panhandle, Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared for Lockheed Martin Corporation, Bethesda, Maryland by Tetra Tech, Inc., Germantown, Maryland. August.

6. Tetra Tech, Inc. (Tetra Tech), 2015b. *Block D Soil Remedial Action Plan Addendum 3: Remedial Action Objective and Project Implementation Schedule, Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared for Lockheed Martin Corporation, Bethesda, Maryland by Tetra Tech, Inc., Germantown, Maryland. August.

7. Tetra Tech, Inc. (Tetra Tech), 2015c. *100% Soil Remedial-Action Design for Blocks D, D Panhandle, F, G and H, Lockheed Martin Middle River Complex, Middle River, Maryland*. Report prepared for Lockheed Martin Corporation, Bethesda, Maryland by Tetra Tech, Inc., Germantown, Maryland. January.

8. Tetra Tech, Inc. (Tetra Tech), 2015d. *Health and Safety Plan for Lockheed Martin Corporation, Middle River Complex, Middle River, Maryland*. Revision 4. April

9. United States Environmental Protection Agency (USEPA), 2014. D. Stalcup, *Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors*. Office of Superfund Remediation and Technology Innovation, Technical Memorandum OSWERDIR9285603. February.

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APPENDIX A—DAILY REPORTS

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 8, 2015	Start Work at:	6:30 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Partly Cloudy	Wind:	Moderate	Precipitation:	None

Weather Comments:

Summary of Work/Major Activities

1. Tailgate safety meeting, discussed safety hazards resulting from loading trucks (overhead hazard with swinging bucket, use spotters). Vehicle load out procedures and operator safety during excavation activities. Possible thunderstorms in the afternoon, warmer temps, stay hydrated and wear sun block.
2. Block G Area H soil excavation completed, 5 trucks loaded.
3. Block G Area J soil excavation completed, 20 trucks loaded.
4. Exploratory excavations completed in suspected UST areas in Block G, no USTs found. Samples will be taken 6/9 for verification of no contamination following receipt of direction from project team. Two trucks loaded from UST areas.
5. Continue installing construction entrance in Block F.
6. MET weather station and DUSTTRAK air monitors set up around excavations in Block G.
7. Verification sampling completed Block G Areas H and J.
8. Begin silt fence installation activities in Block D.

Personnel On-Site

Name:	Company:
Josh Mullis	Tetra Tech
Jim Ferguson	Tetra Tech
Tom Dickson	Tetra Tech
Larry Macher	Elite Environmental
Ken Trent	Elite Environmental
Thomas Vernotzy	Elite Environmental
Jeremy Vernotzy	Elite Environmental
Jeff Sunstrom	Elite Environmental
Gary Norris	Elite Environmental
Scott Nesbit	Tetra Tech
Ben King	Elite Environmental
Vince Burke	AV Burke LLC
Vinnie Burke	AV Burke LLC

Health & Safety Topics or Issues

1. Operator safety in heavy machinery and on the ground safety when in heavy machinery (use spotters, blind spots).
2. Weather: Possible thunderstorms in the afternoon, warmer temps so wear sun block and stay hydrated.
3. Truck load out procedures, correct routes and proper PPE required for all who are on site.

QC Procedures/Inspections/Testing to be Performed Today

1. MET weather station and DUSTRAKK Air Monitors set up in Block G surrounding excavation Areas H and J.
2. Verification sampling completed in Block G Areas H and J.

Planned Week Schedule

1. Complete excavations in Block G (completed 6/8 except for Area I), followed by surveying (completed 6/8 for Areas A-E) and backfilling.
2. Verification sampling of completed excavations (Block G Areas H and J completed 6/8).
3. Saw cut concrete areas in Block F.
4. Asphalt restoration in Block H Areas A and B.
5. Complete construction entrance in Block F.
6. Exploratory excavations for USTs in Block G (no USTs found, samples to be taken 6/9).
7. Baltimore County E&S inspection scheduled for 6/9 for Block F controls.
8. Begin silt fence installation activities in Block D.

Photos of Select Daily Activities



Comments: Truck loaded from Block G Area J.



Comments: Construction entrance installation in Block F.

Photos of Select Daily Activities (continued)

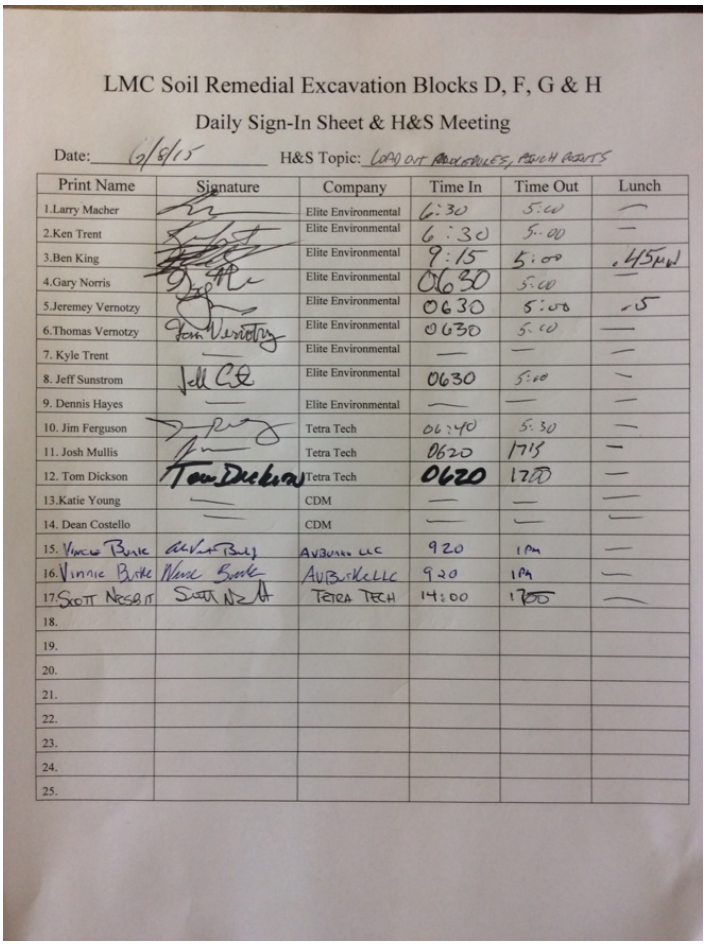


Comments: Exploratory excavation for a suspected UST in Block G, no UST found.



Comments: Exploratory excavations for a suspected UST in Block G, no UST found.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/8/15 H&S Topic: LOAD OUT PROCEDURES, PINCH POINTS

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher	[signature]	Elite Environmental	6:30	5:00	—
2.Ken Trent	[signature]	Elite Environmental	6:30	5:00	—
3.Ben King	[signature]	Elite Environmental	9:15	5:00	.45MW
4.Gary Norris	[signature]	Elite Environmental	0630	5:00	—
5.Jeremey Vernotzy	[signature]	Elite Environmental	0630	5:00	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	0630	5:00	—
7. Kyle Trent	—	Elite Environmental	—	—	—
8. Jeff Sunstrom	Jeff Cst	Elite Environmental	0630	5:00	—
9. Dennis Hayes	—	Elite Environmental	—	—	—
10. Jim Ferguson	[signature]	Tetra Tech	06:40	5:30	—
11. Josh Mullis	[signature]	Tetra Tech	0620	1715	—
12. Tom Dickson	Tom Dickson	Tetra Tech	0620	1700	—
13.Katie Young	—	CDM	—	—	—
14. Dean Costello	—	CDM	—	—	—
15. Vincie Burke	[signature]	AVBURKE LLC	920	1PM	—
16. Vinnie Burke	Vinnie Burke	AVBURKE LLC	920	1PM	—
17. Scott Nesbitt	Scott Nesbitt	TETRA TECH	14:00	1700	—
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					

Construction Manager

[signature]

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 9, 2015	Start Work at:	6:30 AM	Depart Site at:	7:30 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Few Clouds	Wind:	Moderate	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Tailgate safety meeting, discussed safety hazards resulting from loading trucks (overhead hazard with swinging bucket, use spotters). Vehicle load out procedures and operator safety during excavation activities. Possible thunderstorms in the morning and afternoon, warmer temps, stay hydrated and wear sun block.
2. Block G suspected UST areas excavated, 17 trucks loaded.
3. Finish installing construction entrance in Block F.
4. Baltimore County inspector Jim Brendel approved E&S controls in Block F.
5. Verification sampling completed in Block G suspected UST areas.
6. Continue silt fence installation activities in Block D.
7. Begin preparation for asphalt paving in Block H Areas A and B, asphalt paving scheduled to be completed on 6/10.
8. Prepare excavation Areas A-E in Block G for backfilling.
9. Pump storm water out of excavation Area J in Block G into the frac tank staged in Block G.
10. Decontaminate heavy equipment (mini excavator, front end loader) before staging equipment in Block F after work in Block G.

Personnel On-Site

Name:	Company:
Josh Mullis	Tetra Tech
Jim Ferguson	Tetra Tech
Tom Dickson	Tetra Tech
Larry Macher	Elite Environmental
Ken Trent	Elite Environmental
Thomas Vernotzy	Elite Environmental
Jeremy Vernotzy	Elite Environmental
Jeff Sunstrom	Elite Environmental
Gary Norris	Elite Environmental
Scott Nesbit	Tetra Tech
Ben King	Elite Environmental
Joe Green	Elite Environmental

Health & Safety Topics or Issues

1. Operator safety in heavy machinery and on the ground safety when in heavy machinery (use spotters, blind spots).
2. Weather: Possible thunderstorms in the morning and afternoon, warmer temps so wear sun block and stay hydrated.
3. Truck load out procedures, correct routes and proper PPE required for all who are on site.

QC Procedures/Inspections/Testing to be Performed Today

1. Soil sampling completed in Block G suspected UST areas.
2. Baltimore County Inspection for E&S controls in Block F completed and approved.

Planned Week Schedule

1. Complete excavations in Block G (completed 6/8 except for Area I), followed by surveying (completed 6/8 for Areas A-E) and backfilling.
2. Verification sampling of completed excavations (Block G Areas H and J completed 6/8).
3. Saw cut concrete areas in Block F.
4. Asphalt restoration in Block H Areas A and B (preparation completed 6/9, paving to be completed 6/10).
5. Complete construction entrance in Block F.
6. Exploratory excavations for USTs in Block G (no USTs found, sampling completed 6/9).
7. Baltimore County E&S inspection scheduled for 6/9 for Block F controls (completed and approved on 6/9).
8. Continue silt fence installation activities in Block D.

Photos of Select Daily Activities



Comments: Soil profile of suspected UST areas in Block G. Terra cotta piping with pebble fill material and a clay layer underneath, clay layer occurs approx 4 ft bgs. Soil samples were taken from this clay layer.



Comments: Silt fence installation in Block D.

Photos of Select Daily Activities (continued)

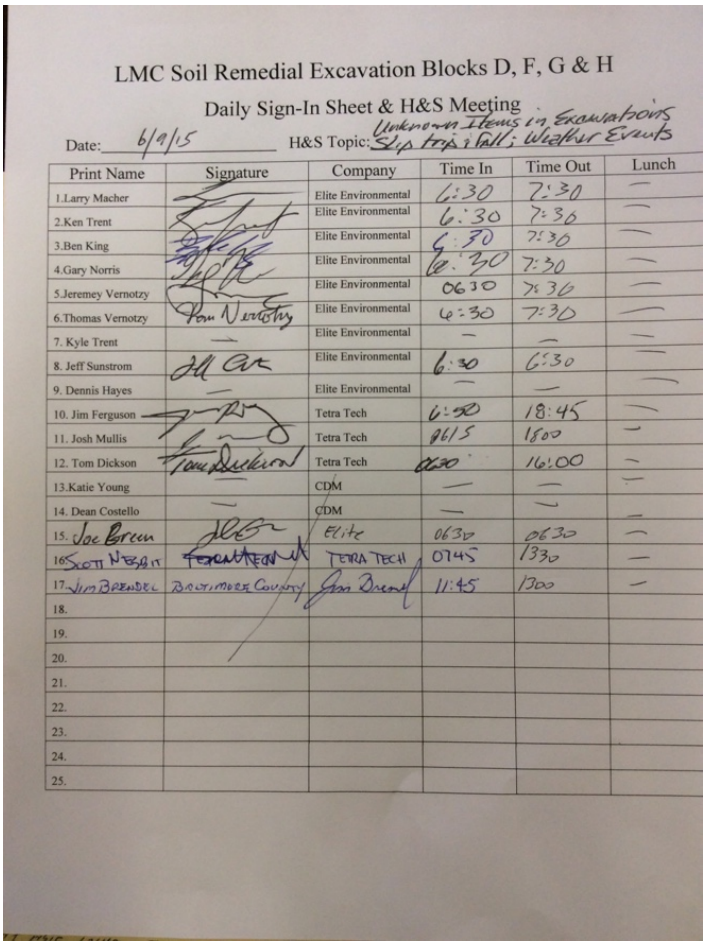


Comments:	Decontamination of the mini-excavator bucket.



Comments:	Decontamination of the front end loader.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/9/15 H&S Topic: Unknown Items in Excavations; Slip trip fall; Weather Events

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:30	7:30	—
2.Ken Trent		Elite Environmental	6:30	7:30	—
3.Ben King		Elite Environmental	6:30	7:30	—
4.Gary Norris		Elite Environmental	6:30	7:30	—
5.Jeremey Vernotzy		Elite Environmental	0630	7:30	—
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	7:30	—
7. Kyle Trent	—	Elite Environmental	—	—	—
8. Jeff Sunstrom		Elite Environmental	6:30	6:30	—
9. Dennis Hayes	—	Elite Environmental	—	—	—
10. Jim Ferguson		Tetra Tech	6:00	18:45	—
11. Josh Mullis		Tetra Tech	0615	1800	—
12. Tom Dickson		Tetra Tech	0630	16:00	—
13.Katie Young	—	CDM	—	—	—
14. Dean Costello	—	CDM	—	—	—
15. Joe Breen		Elite	0630	0630	—
16 Scott Nesbit		TETRA TECH	0745	1330	—
17. Jim Brendel	Baltimore County		11:45	1300	—
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 10, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy, winds out of the southeast.

Summary of Work/Major Activities

1. Tailgate safety meeting, discussed safety hazards resulting from loading trucks (overhead hazard with swinging bucket, use spotters). Vehicle load out procedures and operator safety. Asphalt paving activity and burn potential due to asphalt materials. Weather: warmer temps, stay hydrated and wear sun block.
2. Asphalt pavement installation in Block H, Areas A and B.
3. Soil load out from Block G, UST Area (one truck).
4. Super Silt diversion fence installation in Block D.
5. Clear and grub brush in Block D Panhandle area.
6. Obtain access to Block D gates from Lockheed Martin security. Placed Tetra Tech padlock in series with Lockheed Martin lock for future access.

Personnel On-Site

Name:	Company:
Jim Ferguson	Tetra Tech
Tom Dickson	Tetra Tech
Josh Mullis	Tetra Tech
Ken Trent	Elite Environmental
Jeff Sunstrom	Elite Environmental
Tom Vernotzy	Elite Environmental
Jeremy Vernotzy	Elite Environmental
Joe Greene	Elite Environmental
Eric Kenny	CDM Smith
Jeff Meadows	Meadows Paving
Darryl Seabolt	Meadows Paving
John Colleran	Meadows Paving
Jamie Fortney	Meadows Paving

Health & Safety Topics or Issues

1. Equipment safety and awareness.
2. Heat stress, stroke, evaluation and monitoring.
3. Asphalt paving activity and burn potential due to asphalt materials.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor asphalt installation and compaction in Block H.
2. Monitor Super silt diversion fence installation in Block D.
3. Monitor clearing and grubbing operations in Block D Panhandle Area.

Planned Week Schedule

1. Complete excavations in Block G (completed 6/8 except for Area I), followed by surveying (completed 6/8 for Areas A-E) and backfilling. (UST area excavations completed 6/10)
2. Verification sampling of completed excavations (Block G Areas H and J completed 6/8).
3. Saw cut concrete areas in Block F.
4. Asphalt restoration in Block H Areas A and B (preparation completed 6/9, paving completed 6/10).
5. Complete construction entrance in Block F (completed 6/9).
6. Exploratory excavations for USTs in Block G (no USTs found, sampling completed 6/9).
7. Baltimore County E&S inspection scheduled for 6/9 for Block F controls (completed and approved on 6/9).
8. Continue silt fence installation activities in Block D.
9. Clear and grub brush from Block D Panhandle area.

Photos of Select Daily Activities



Comments: Block H Area A completed asphalt paving.



Comments: Block H Area B, compaction of final asphalt layer.

Photos of Select Daily Activities (continued)

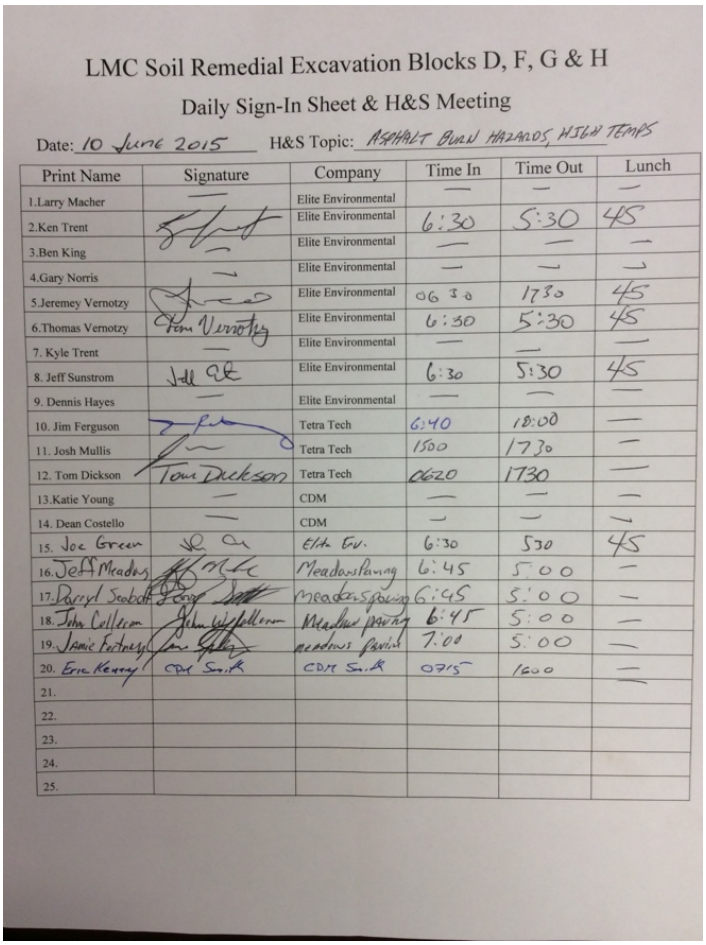


Comments: Clearing and grubbing Block D Panhandle Area.



Comments: Block D super silt diversion fence installation.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10 June 2015 H&S Topic: ASPHALT BURN HAZARDS, HIGH TEMPS

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher	—	Elite Environmental	—	—	—
2.Ken Trent		Elite Environmental	6:30	5:30	45
3.Ben King	—	Elite Environmental	—	—	—
4.Gary Norris	—	Elite Environmental	—	—	—
5.Jeremey Vernotzy		Elite Environmental	0630	1730	45
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	5:30	45
7. Kyle Trent	—	Elite Environmental	—	—	—
8. Jeff Sunstrom		Elite Environmental	6:30	5:30	45
9. Dennis Hayes	—	Elite Environmental	—	—	—
10. Jim Ferguson		Tetra Tech	6:40	18:00	—
11. Josh Mullis	—	Tetra Tech	1500	1730	—
12. Tom Dickson	Tom Dickson	Tetra Tech	0620	1730	—
13.Katie Young	—	CDM	—	—	—
14. Dean Costello	—	CDM	—	—	—
15. Joe Green		Elite Env.	6:30	530	45
16. Jeff Meadows		Meadows Paving	6:45	5:00	—
17. Darryl Seabolt		Meadows paving	6:45	5:00	—
18. John Colleran		Meadows paving	6:45	5:00	—
19. Jamie Fortney		meadows paving	7:00	5:00	—
20. Eric Kenney	CDM Smith	CDM Smith	0715	1600	—
21.					
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 11, 2015	Start Work at:	6:30 AM	Depart Site at:	4:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	None	Precipitation:	None

Weather Comments: Humid, little to no wind.

Summary of Work/Major Activities

1. Hertz Equipment mechanic on site to fix power broom and to adjust ditch witch chain tightness.
2. Elite Environmental crews continue with E&S controls installation in Block D.
3. Trenching with Bobcat ditch witch in block D for silt fence installation.
4. Working with Rain-for-rent to try to arrange for delivery of an additional frac-tank for storm water storage.

Personnel On-Site

Name:	Company:
Tom Dickson	Tetra Tech
Jim Ferguson	Tetra Tech
Ivanna Goldsberry	Tetra Tech
Ken Trent	Elite Environmental
Jeff Sunstrom	Elite Environmental
Tom Vernotzy	Elite Environmental
Jeremy Vernotzy	Elite Environmental
Joe Greene	Elite Environmental

Health & Safety Topics or Issues

1. Discussed generating a task hazard analysis for trenching with the Bob-cat and ditch witch implement with the Elite Environmental staff.
2. Discussed keeping metrics for individual workers (weight/body temperature) in an effort to better monitor for signs of heat stress, fatigue or stoke.
3. Discussed better documentation of daily / weekly / monthly equipment inspections.
4. Discussed safety data sheet compilation and location with site documents.

QC Procedures/Inspections/Testing to be Performed Today

1. CQA for silt fence installation.
2. CQA for super silt fence installation.

Planned Week Schedule

1. Complete Block G excavation (completed 6/8 except for Area I), followed by surveying (completed 6/8 for areas A-E) and backfilling, (UST area excavations completed 6/10).
2. Verification sampling of completed excavations (Block G Areas H and J completed 6/8).
3. Saw cut concrete areas in Block F.
4. Asphalt restoration in Block H Areas A and B (preparation completed 6/9, paving completed 6/10).
5. Complete construction entrance in Block F (completed (6/9).
6. Exploratory excavations for USTs in Block G (no USTs found, sampling completed 6/9).
7. Baltimore County E&S inspection for Block F controls (completed and approved on 6/9).
8. Continue silt fence and super silt fence installation activities in Block D. (Ongoing as of 6/11).
9. Clear and grub brush in Block D panhandle area (Ongoing as of 6/11).
10. Deliver additional frac-tank for storm water (Delivered 6/11).

Photos of Select Daily Activities



Comments:

Block D super silt fence installation.



Comments:

Installation of super silt diversion fence in vicinity of construction entrance for Block D.

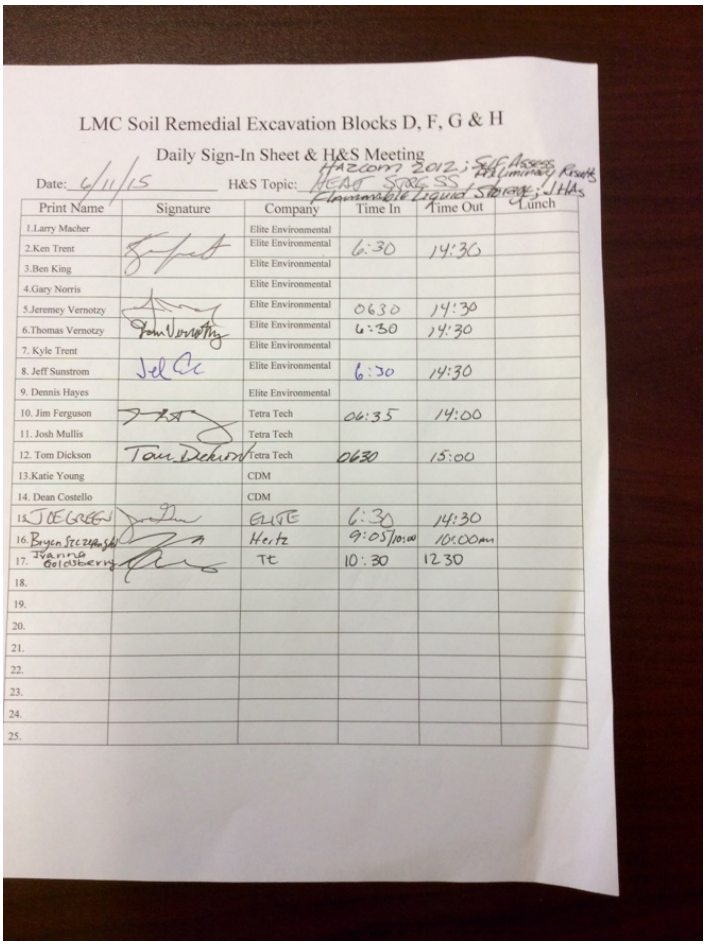
Photos of Select Daily Activities (continued)



Comments: Delivery of second frac for stormwater.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/11/15 H&S Topic: HAZCOM 2012; Self Assess Preliminary Results HEAT STRESS Flammable Liquid Storage; JHAs

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental			
2.Ken Trent		Elite Environmental	6:30	14:30	
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	14:30	
6.Thomas Vernotzy		Elite Environmental	6:30	14:30	
7. Kyle Trent		Elite Environmental			
8. Jeff Sunstrom		Elite Environmental	6:30	14:30	
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	06:35	14:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0630	15:00	
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. JOE GREEN		ELITE	6:30	14:30	
16. Bryan Stezzano		Hertz	9:05/10:00	10:00am	
17. Ivanna Goldsberry		Tt	10:30	1230	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 15, 2016	Start Work at:	6:20 AM	Depart Site at:	7:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Mostly Cloudy	Wind:	Light	Precipitation:	Light Rain

Weather Comments: Overcast, intermittent rain and thunder showers.

Summary of Work/Major Activities

1. Diversion of storm water around Block G Area J.
2. Well abandonment Block F, UST Area (46A), Area E (47A) by Ground Zero Drilling.
3. Trenching with mini-excavator in Block D.
4. Installation of 18" HDPE RCP for storm water diversion in proximity to Block G Area J.

Personnel On-Site

Name:	Company:
Jim Ferguson	Tetra Tech
Tony Apanavage	Tetra Tech
Clyde Snyder	Tetra Tech
Jeff Sunstrom	Elite Environmental
Tom Vernotzy	Elite Environmental
Jeremy Vernotzy	Elite Environmental
Kyle Trent	Elite Environmental
Ben King	Elite Environmental
Jeff Dziennik	Ground Zero

Health & Safety Topics or Issues

1. Weather related issues and safety.
2. Trenching safety.
3. Fall protection related to working on frac-tanks.
4. Site security awareness.

QC Procedures/Inspections/Testing to be Performed Today

Well abandonment CQA.
Silt fence installation CQA.
Super silt diversion fence installation CQA.

Planned Week Schedule

1. Diversion of storm water around Block G Area J.
2. Construction entrance construction in Block D.
3. Demo concrete in Block F.
4. Begin backfill and compaction of excavations in Block G.
5. Remove temporary 6' chain-link fence around Block H Areas A and B.

Photos of Select Daily Activities

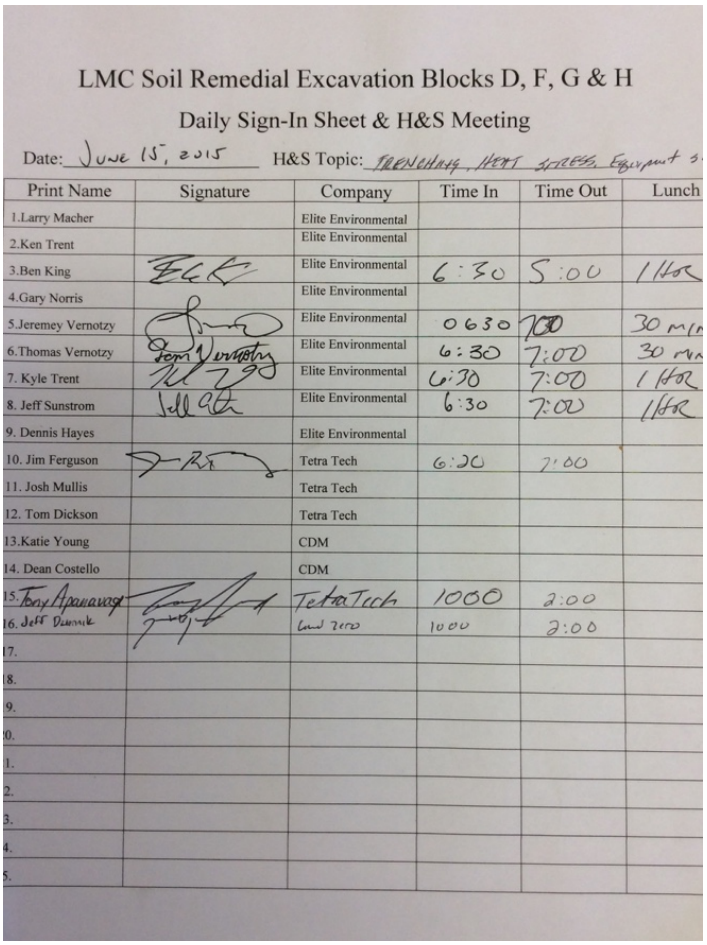


Comments: Frac-tank fall protection awareness.



Comments: Installed 18" ID HDPE for storm water diversion in proximity to Block G Area J.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: June 15, 2015 H&S Topic: TRENCHING, HEAT STRESS, Equipment S

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental			
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental	6:30	5:00	1 Hr
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	700	30 min
6.Thomas Vernotzy		Elite Environmental	6:30	7:00	30 min
7. Kyle Trent		Elite Environmental	6:30	7:00	1 Hr
8. Jeff Sunstrom		Elite Environmental	6:30	7:00	1 Hr
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	7:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. Tony Apanavage		TetraTech	1000	2:00	
16. Jeff Dunnuk		Land Tech	1000	2:00	
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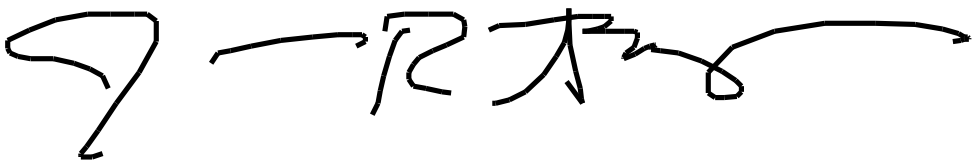
Construction Manager

Submitted by:



TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 16, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	—

Weather Comments: Partly cloudy, wind out of the southwest.

Summary of Work/Major Activities

1. Silt fence trenching And silt fence installation.
2. Super silt fence installation Block D.
3. Storm water diversion piping enhancements.
4. Met with I. Goldsberry (Tt) and K. Trent (Elite Env.) regarding approach to excavation of south wall in Block G area H excavation.
5. During installation of storm water diversion pipe and the subsequent regrading of the area, located a transformer with wiring.
6. Two 20 cubic yard roll-offs were delivered to the site to contain soils in and around the transformer location. Roll-offs were lined and tapped following removal of the overlying soils and removal of the soils around the transformer.
7. Following regrading of soils in the location the transformer housing was located, covered the area with plastic to prevent any contact with precipitation to eliminate runoff.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
C. Snyder	Tetra Tech
I. Goldsberry	Tetra Tech
P. Schramm	Lockheed Martin
M. Martin	Tetra Tech
K. Trent	Elite Environmental
L. Macher	Elite Environmental
T. Vernotzy	Elite Environmental
J. Vernotzy	Elite Environmental
J. Sunstrom	Elite Environmental
B. King	Elite Environmental
K. Trent	Elite Environmental
T. Blackman	Lockheed Martin
J. Thoas	Lockheed Martin

Health & Safety Topics or Issues

1. Weather, lightening and safety issues.
2. Fall protection awareness related to operations involving the frac-tanks.

QC Procedures/Inspections/Testing to be Performed Today

1. Super silt diversion fence installation CQA in Block D.
2. Silt fence installation CQA in Block D.
3. Soil samples collected from area where transformer was found. Two grab samples from soil immediately in contact with the transformer and two composite samples from soils directly overlying the transformer.

Planned Week Schedule

1. Diversion of storm water around Block G Area J (completed 6/16).
2. Construction entrance construction in Block D.
3. Demo concrete in Block F.
4. Begin backfill and compaction of excavations in Block G.
5. Remove temporary 6' chain-link fencing in Block H.
6. Continue E & S controls installation in Block D (Work is ongoing).
7. Excavate and contain soils from location around transformer located adjacent to Block G Area J excavation (completed 6/16).

Photos of Select Daily Activities



Comments: Location of transformer north and west of the storm water discharge drainage ditch.



Comments: Transformer removed by trac-hoe in fill material.

Photos of Select Daily Activities (continued)

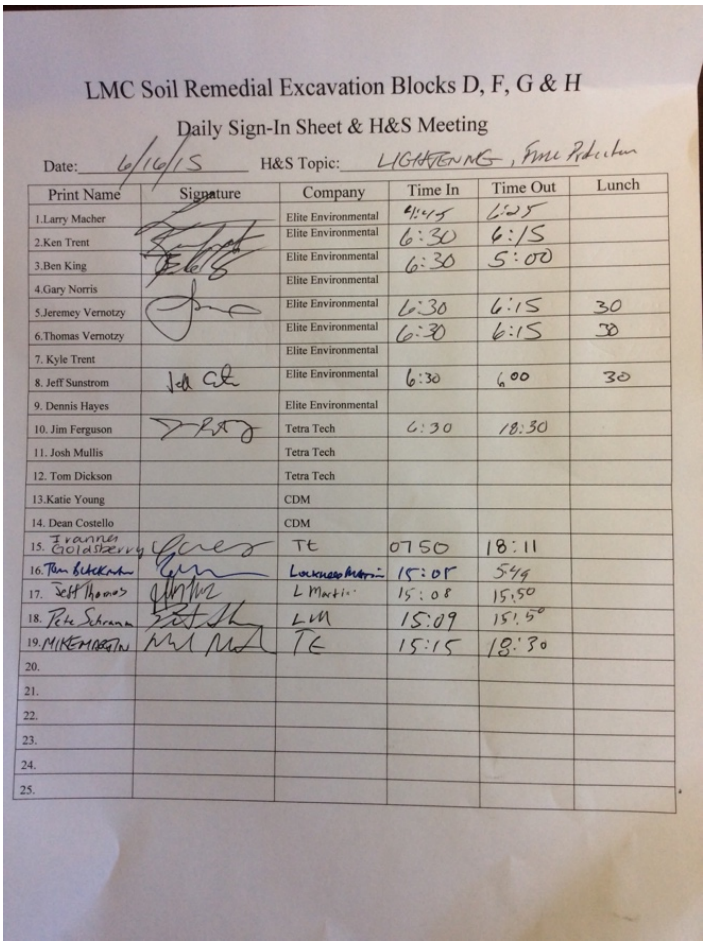


Comments: Diversion pipe, transformer found near down gradient end of pipe. Block G Excavation Area J in left side of photo.



Comments: Transformer location, residual metal from transformer housing.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/16/15 H&S Topic: LIGHTENING, FIRE Protection

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	4:45	6:25	
2.Ken Trent		Elite Environmental	6:30	4:15	
3.Ben King		Elite Environmental	6:30	5:00	
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	6:30	6:15	30
6.Thomas Vernotzy		Elite Environmental	6:30	6:15	30
7. Kyle Trent		Elite Environmental			
8. Jeff Sunstrom		Elite Environmental	6:30	6:00	30
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	18:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. Ivanne Goldsberry		TE	0750	18:11	
16. Tom Bickham		Lockheed Martin	15:05	549	
17. Jeff Thomas		L Martin	15:08	15,50	
18. Pete Schramm		LM	15:09	15,50	
19. MIKE MORTON		TE	15:15	18:30	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 17, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy (morning) to overcast (afternoon)

Summary of Work/Major Activities

1. E & S controls installation in Block D.
2. Sample storm water in frac-tank. Prep storm water sample for shipment to Test America. Sample to be analyzed for EPA Method 8082 (PCBs).
3. Installation of silt fence in Block D Panhandle area.
4. Continue clearing and grubbing in Block D Panhandle Area.
5. AV Burke LLC surveyors locate and set pins for excavation areas in Block D Panhandle Areas.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	I. Goldsberry	Company:	Tetra Tech
Name:	Ken Trent	Company:	Elite Environmental
Name:	Kyle Trent	Company:	Elite Environmental
Name:	J. Vernotzy	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	Jeff Sunstrom	Company:	Elite Environmental
Name:	Vince Burke	Company:	AV Burke LLC
Name:	Vinny Burke	Company:	AV Burke LLC
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Fall protection related to frac-tanks, roll-off containers and excavations.
2. Exposure to sun and sunscreen.
3. Heat stress, stroke and hydration.

QC Procedures/Inspections/Testing to be Performed Today

1. Silt fence installation CQA.
2. Frac-tank storm water sampling.

Planned Week Schedule

1. Diversion of storm water around block G Area J (completed 6/16).
2, Construction entrance construction in Block D. (Week of 6/22)
3. Demo concrete in Block F. (Week of 6/22)
4. Begin backfill and backfill of excavations in Block G (to be completed week of 6/22, approvals received 6/17).
5. Remove temporary 6' chain link fence in Block H (to be completed week of 6/22).
6. Continue E &S controls installation in Block D (work is ongoing).
7. Excavate and contain soils from location around transformer location adjacent to Block G Area J excavation (completed 6/16).
8. Backfill Block G excavation Areas. Additional excavation in south wall of Block G area H, excavate Block G Area I. (Week of 6/22).

Photos of Select Daily Activities



Comments: Clearing and grubbing at Block D Panhandle area.



Comments: Silt fence installation along south east corner of Block D Panhandle Area (Wilson Point Road on left side of photo).

Photos of Select Daily Activities (continued)

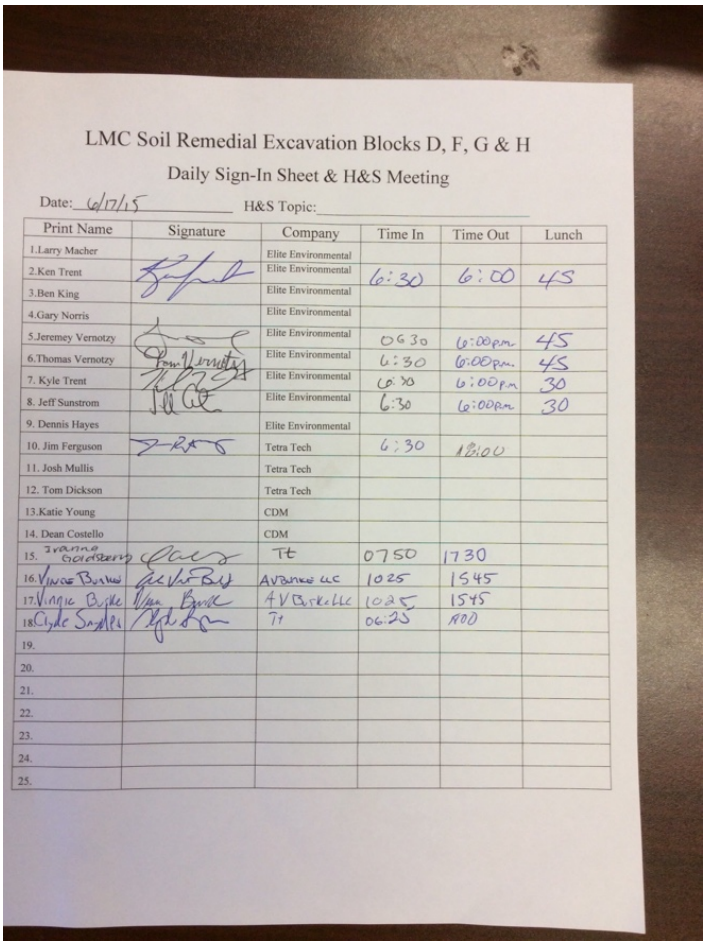


Comments: Silt fence installation along Wilson Point Road (right side of photo) fence line in Block D panhandle area.



Comments: AV Burke LLC surveyor locates excavation point.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/17/15 H&S Topic:

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental			
2.Ken Trent	[signature]	Elite Environmental	6:30	6:00	45
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy	[signature]	Elite Environmental	0630	6:00pm	45
6.Thomas Vernotzy	[signature]	Elite Environmental	6:30	6:00pm	45
7. Kyle Trent	[signature]	Elite Environmental	6:30	6:00pm	30
8. Jeff Sunstrom	[signature]	Elite Environmental	6:30	6:00pm	30
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson	[signature]	Tetra Tech	6:30	18:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. Ivanna Goldsberry	[signature]	Tt	0750	1730	
16. Vince Burke	[signature]	AVBurke LLC	1025	1545	
17. Vinnie Burke	[signature]	AV Burke LLC	1025	1545	
18. Clyde Snyder	[signature]	Tt	06:25	1900	
19.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 18, 2015	Start Work at:	6:30 AM	Depart Site at:	2:30 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Overcast	Wind:	Light	Precipitation:	—

Weather Comments: Overcast, raining in the morning.

Summary of Work/Major Activities

1. Installed small 10' section of silt fence on pavement along silt super silt fence line on south side of Block D along bulkhead.
2. Made initial opening in fence for construction entrance on the west side of Block D.
3. Continued silt fence installation along north side of Block D.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Trch
Name:	I. Goldsberry	Company:	Tech Tech
Name:	Ken Trent	Company:	Elite Environmental
Name:	Kyle Trent	Company:	Elite Environmental
Name:	Jeremy Vernotzy	Company:	Elite Environmental
Name:	Tom Vernotzy	Company:	Elite Environmental
Name:	Dean Costello	Company:	CDM Smith
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Slips trips and falls related to the rainy weather.
2. Poison ivy and remedies available in the site trailer if you feel you have been exposed.
3. Perform a quick review of tasks to be completed and assess hazards. Take any precautions prior to start of work.
4. Portable electric equipment use related to rainy and wet conditions, potential shock hazards.

QC Procedures/Inspections/Testing to be Performed Today

1. Review silt fence on pavement installation details.
2. Review silt fence installation details.

Planned Week Schedule

1. Diversion of storm water around block G area J (completed 6/16).
2. Construction entrance construction in Block D (week of 6/22).
3. Demo concrete in Block F (week of 6/22).
4. Begin backfill of excavations in block G (to be completed week of 6/22, approvals received 6/17).
5. Remove temporary 6' chain link fence in Block H (to be completed week of 6/22).
6. Continue E & S installation in Block D (work is ongoing).
7. Excavate and contain soils from location around transformer location adjacent to Block G area J excavation (completed 6/16).
8. Backfill Block G excavation areas. Additional excavation in south wall of Block G Area H, excavate Block G area I (week of 6/22).

Photos of Select Daily Activities



Comments: Silt fence on pavement installation over concrete storm water structure on the south side of Block D.



Comments: Super silt fence installation along bulk head looking west toward Cow Pen Creek.

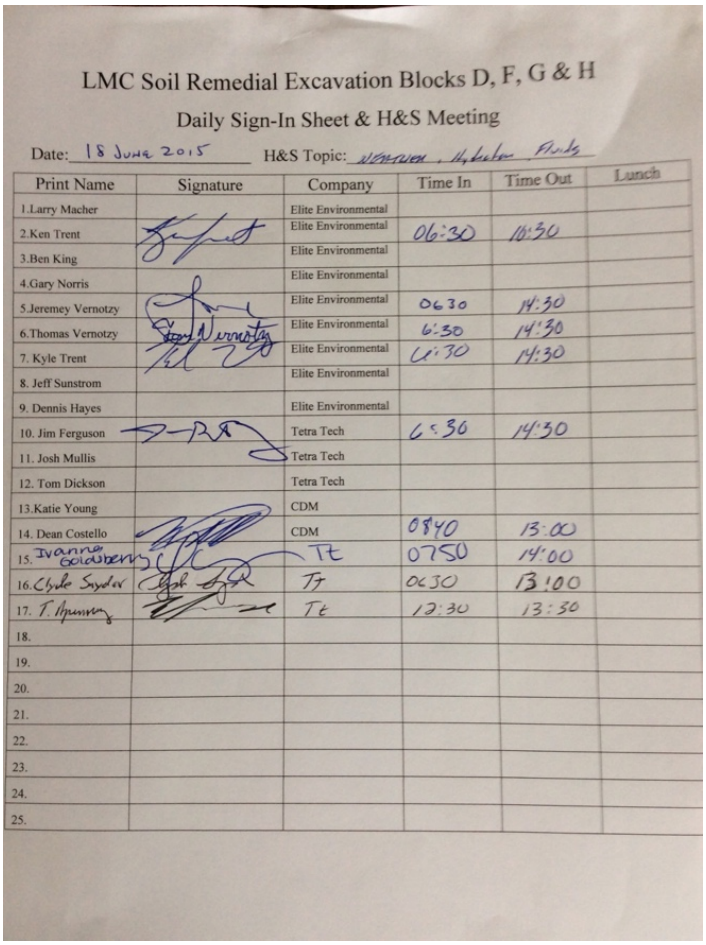
Photos of Select Daily Activities (continued)



Comments: Super silt fence installation in block D looking northeast toward Martin State Airport.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 18 June 2015 H&S Topic: Weather, Hydration, Fluids

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental			
2.Ken Trent		Elite Environmental	06:30	16:30	
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	14:30	
6.Thomas Vernotzy		Elite Environmental	6:30	14:30	
7. Kyle Trent		Elite Environmental	6:30	14:30	
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	14:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	0840	13:00	
15. Ivanne Goldberg		Tt	0750	14:00	
16.Clyde Snyder		Tt	0630	13:00	
17. T. Upperman		Tt	12:30	13:30	
18.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 22, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy, wind out of the southwest.

Summary of Work/Major Activities

1. Pumped storm water from excavation are J in Block G due to extensive precipitation influx due to pop-up thunder storm on 6/21/15.
2. Complete super silt fence installation in Block D Panhandle.
3. Complete silt fence installation along west side of Block D panhandle.
4. Completed construction entrance opening in fence in Block D.

Personnel On-Site

Name:	Company:
Jim Ferguson	Tetra Tech
Ivanna Goldsberry	Tetra Tech
Clyde Snyder	tetra Tech
Fred Kolberg	Tetra Tech
Alicia Rodrian	Tetra Tech
Ken Trent	Elite Environmental
Kyle Trent	Elite Environmental
Larry Macher	Elite Environmental
Gary Norris	Elite Environmental
Jeff Sunstrim	Elite Environmental
Tom Vernotzy	Elite Environmental
Jeremy Vernotzy	Elite Environmental
Laura Burbage	CDM Smith

Health & Safety Topics or Issues

1. Discussed effects of heat, forcing fluids.

QC Procedures/Inspections/Testing to be Performed Today

Super silt fence installation QA/QC.
Silt fence installation QA/QC.
Collection of soil samples at small seep located in the southwest corner of Block D (collected by T. Apanavage)

Planned Week Schedule

1. Begin backfill of excavations in Block G (to be completed week of 6/22).
2. Block D construction entrance construction (work is ongoing).
3. Remove temporary 6' chain link fence in Block H (week of 6/22).
4. Continue E & S Installation in Block D (work is ongoing).
5. Excavate south wall of Block G Area H (week of 6/22).
6. Begin excavation of Block G Area I (week of 6/22).
7. Pump storm water runoff from excavations to frac tanks (6/22).

Photos of Select Daily Activities



Comments: Completed construction entrance at Block D.



Comments: Silt fence installation at Block D panhandle.

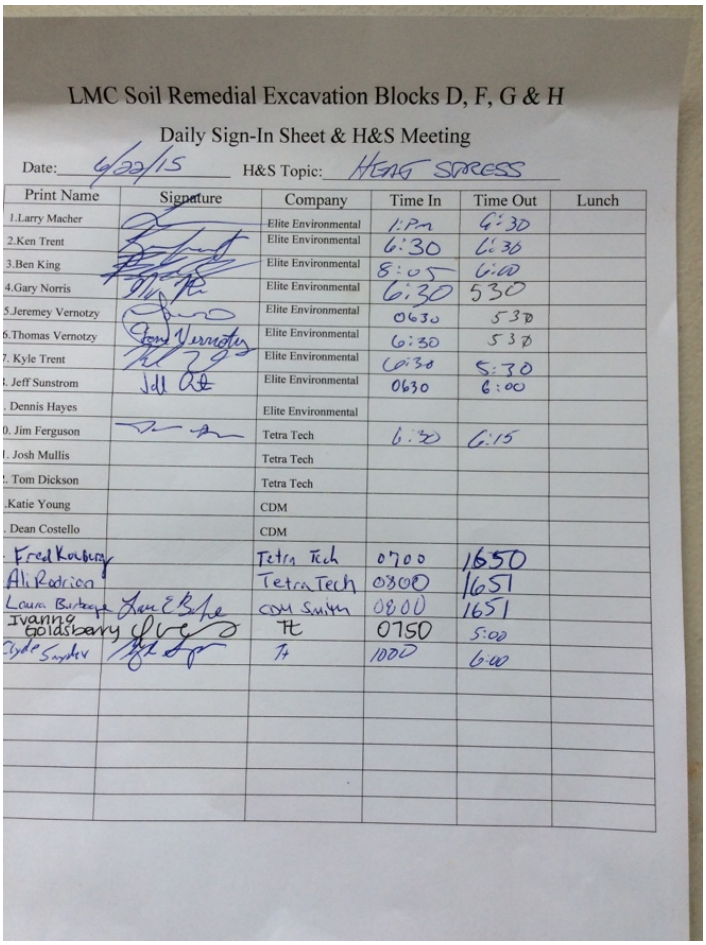
Photos of Select Daily Activities (continued)



Comments: Super silt fence installation along Block D panhandle.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/22/15 H&S Topic: HEAT STRESS

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	1:PM	6:30	
2.Ken Trent		Elite Environmental	6:30	6:30	
3.Ben King		Elite Environmental	8:05	6:00	
4.Gary Norris		Elite Environmental	6:30	530	
5.Jeremey Vernotzy		Elite Environmental	0630	530	
6.Thomas Vernotzy		Elite Environmental	6:30	530	
7. Kyle Trent		Elite Environmental	6:30	5:30	
8. Jeff Sunstrom		Elite Environmental	0630	6:00	
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	6:15	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. Fred Kaufberg		Tetra Tech	0700	1650	
16. Ali Radcliff		Tetra Tech	0300	1651	
17. Laura Burbage		CDM Smith	0800	1651	
18. Ivanna Goldsberry		TT	0750	5:00	
19. Clyde Snyder		TT	1000	6:00	

Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 23, 2015	Start Work at:	6:30 AM	Depart Site at:	8:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	None	Precipitation:	Rain

Weather Comments: Partly cloudy, humid

Summary of Work/Major Activities

1. Continue E&S control installation in Block D (install curl-x, reseed).
2. Excavator with long arm extension delivered to site in advance of work in Block G Area I.
3. Started initial work to install E & S controls in Block G Area I. Stopped work in the area due to problematic shallow surface soil conditions.
4. Frac-tank delivered to site to provide additional capacity for storm water due to line of thunderstorms moving through the area.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	I. Goldsberry	Company:	Tetra Tech
Name:	A. Rodrian	Company:	Tetra Tech
Name:	Ken Trent	Company:	Elite Environmental
Name:	I. Macher	Company:	Elite Environmental
Name:	B. King	Company:	Elite Environmental
Name:	Kyle Trent	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	Jeff Sunstrom	Company:	Elite Environmental
Name:	Tom Vernotzy	Company:	Elite Environmental
Name:	Jeremy Vernotzy	Company:	Elite Environmental
Name:	Laura Burbage	Company:	CDM Smith
Name:	Fred Kolberg	Company:	Tetra Tech

Health & Safety Topics or Issues

1. Heat stress monitoring. Frequent breaks will be required today since the heat index is forecasted to be 105 degrees F.
2. The weather forecast for today is calling for thunder storms. Be aware of approaching storms and take appropriate actions if lightening is observed or heard.

QC Procedures/Inspections/Testing to be Performed Today

1. Silt fence QA/QC.
2. Super silt diversion fence QA/QC.

Planned Week Schedule

1. Begin backfill of excavations in Block G (to be completed week of 6/22).
2. Block D construction entrance construction (work is ongoing).
3. Remove temporary 6' chain link fence in Block H. Fence will be removed following painting of parking lines.
4. Continue E & S installation in Block D (work is ongoing).
5. Excavate south wall of Block G, excavation Area H (week of 6/22).
6. Begin excavation of Block G Area I (work deferred due to subsurface conditions).
7. Pump storm water runoff from excavations to frac tanks (6/22).

Photos of Select Daily Activities



Comments: Excavator delivered to site to complete excavation in Block G Area I.



Comments: South wall of Block G Area H.

Photos of Select Daily Activities (continued)

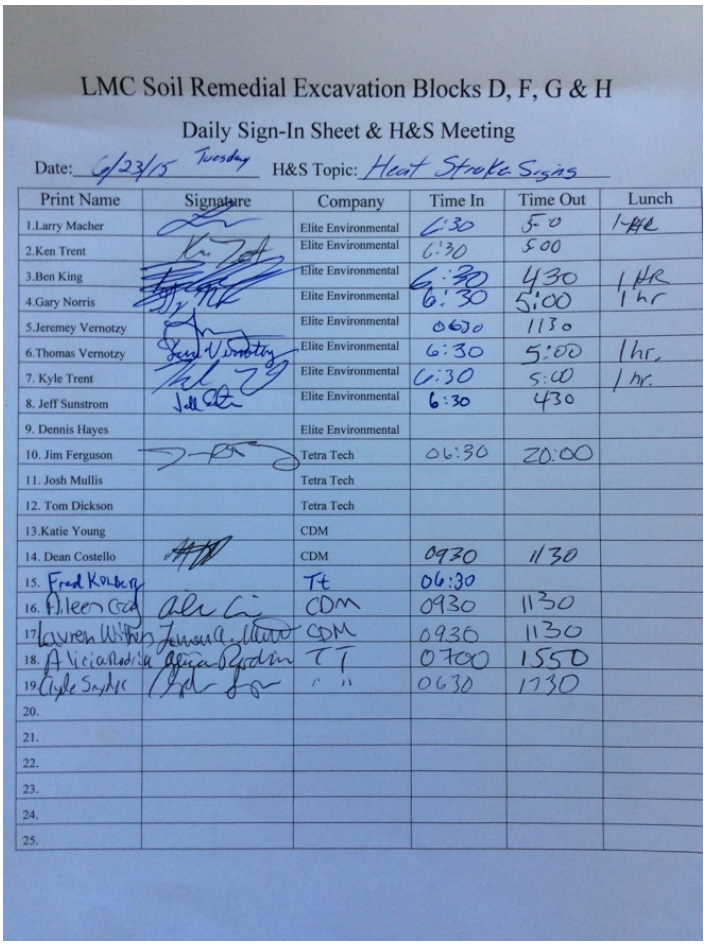


Comments: Monitoring well 12A protective cover displaced. Secured wellhead with compression fitting.



Comments: Sheet flow resulting from thunderstorm flows over silt fence in D Panhandle Area

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/23/15 Tuesday H&S Topic: Heat Stroke Signs

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:30	5:0	1 HR
2.Ken Trent		Elite Environmental	6:30	500	
3.Ben King		Elite Environmental	6:30	430	1 HR
4.Gary Norris		Elite Environmental	6:30	5:00	1 hr
5.Jeremey Vernotzy		Elite Environmental	0630	1130	
6.Thomas Vernotzy		Elite Environmental	6:30	5:00	1hr.
7. Kyle Trent		Elite Environmental	6:30	5:00	1 hr.
8. Jeff Sunstrom		Elite Environmental	6:30	430	
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	06:30	20:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	0930	1130	
15. Fred Kolberg		Tt	06:30		
16. Aileen Cid		CDM	0930	1130	
17. Lauren Wilkins		CDM	0930	1130	
18. Alicia Rodia		TT	0700	1550	
19. Clyde Snyder		" "	0630	1730	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 25, 2015	Start Work at:	6:30 AM	Depart Site at:	5:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Mostly Cloudy	Wind:	None	Precipitation:	Light Rain

Weather Comments: Light rain in the evening, after 17:00

Summary of Work/Major Activities

1. Staged backfill next to excavations in Block G Areas A-F (completed 6/25).
2. Excavated south wall of Block G Area H, sent one truck of soil to Soil Safe Disposal Facility (completed 6/25).
3. Inserted flow through packer into storm water pipe upgradient of Block G Area J (completed 6/25).
4. Coordinated trucking supplied by Veolia Environmental Services for the transport of the storm water from Block G for treatment and disposal at Clean Harbors of Baltimore (ongoing).
5. Applied striping to the Block H Area A and B Sites to facilitate removal of the 6' chain link fencing (Completed 6/25).
6. Installation of temporary asphalt berm (TAB) in Block D (completed 6/25).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	K. Trent	Company:	Elite Environmental
Name:	Kyle Trent	Company:	Elite Environmental
Name:	B. King	Company:	Elite Environmental
Name:	J. Sunstrom	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	J. Vernotzy	Company:	Elite Environmental
Name:	J.Colleran	Company:	Meadows Paving
Name:	D. Seabolt	Company:	Meadows Paving
Name:	J. Meadows/ J. Fortney	Company:	Meadows Paving
Name:		Company:	

Health & Safety Topics or Issues

1. Weather safety, procedures for thunder and lightening storms.
2. C. Snyder will be performing heat stress assessments.

QC Procedures/Inspections/Testing to be Performed Today

1. TAB QA/QC.
2. Collection of composite sample from south wall of Block G Area J.

Planned Week Schedule

1. Begin backfill of excavations in Block G (work is ongoing).
2. Block D construction entrance construction (work is ongoing).
3. Remove temporary 6' chain link fence in Block H (week of 6/29).
4. Paint yellow striping in parking areas in Block H (completed 6/25).
5. Excavate south wall of Block G Area H (complete 6/25).
6. Begin excavation of Block G Area I (work deferred to later date due to subsurface conditions).
7. Pump storm water runoff from Block G Excavation Area J to frac tanks (6/22, 6/23).
8. Collect verification composite soil sample from south wall of Block G Area H (completed 6/25).
9. Install diversion fencing around Block G Area J and UST area. (completed 6/25)
10. Shipped 4 tankers of storm water to Clean Harbors for treatment and disposal (to be completed 6/26).
11. Install TAB in Block D (completed 6/25).

Photos of Select Daily Activities



Comments: TAB installation in Block D.



Comments: Installation of plastic along south wall of Block G Area H.

Photos of Select Daily Activities (continued)

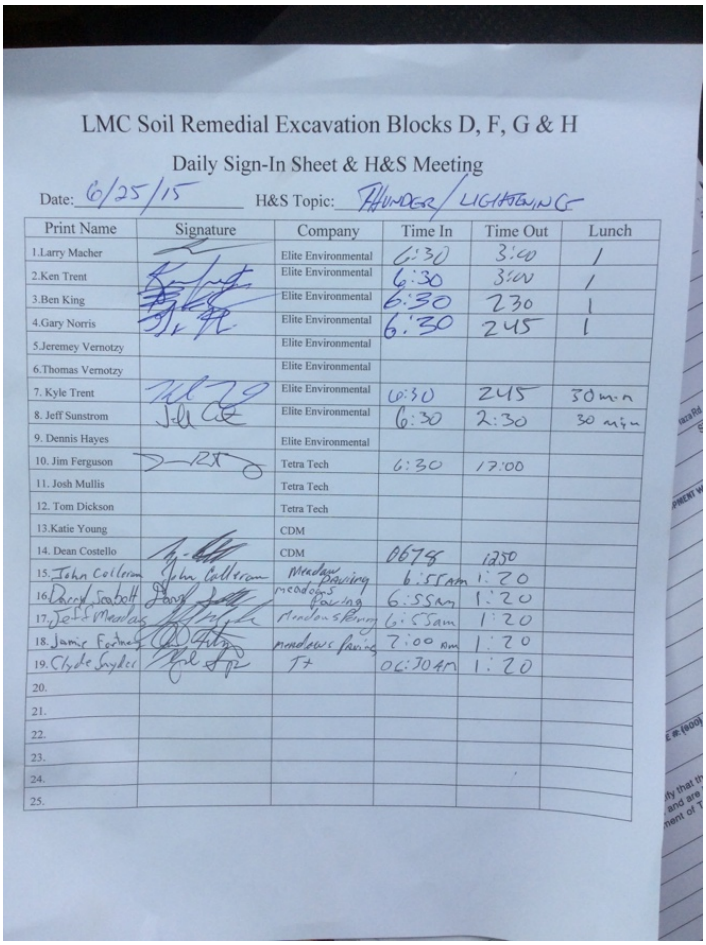


Comments: Flow through packer installed to divert storm water from Block G Area J.



Comments: Hard suction pipe used for storm water diversion.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/25/15 H&S Topic: THUNDER / LIGHTENING

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:30	3:00	1
2.Ken Trent		Elite Environmental	6:30	3:00	1
3.Ben King		Elite Environmental	6:30	2:30	1
4.Gary Norris		Elite Environmental	6:30	2:45	1
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental			
7. Kyle Trent		Elite Environmental	6:30	2:45	30 min
8. Jeff Sunstrom		Elite Environmental	6:30	2:30	30 min
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	17:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	0678	1250	
15. John Colleran	John Colleran	Meadows Paving	6:55AM	1:20	
16. Darryl Sobott		meadows paving	6:55am	1:20	
17. Jeff Mendes		Meadows Paving	6:55am	1:20	
18. Jamie Fedrick		meadows paving	7:00 AM	1:20	
19. Clyde Snyder		T+	06:30AM	1:20	
20.					
21.					
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24.					
25.					

Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 29, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Few Clouds	Wind:	Light	Precipitation:	None

Weather Comments:

Summary of Work/Major Activities

1. Frac tank water located in Block G hauled offsite to Clean Harbors (5 trips, 30,000 gal approx).
2. Repair silt fence in Block F Area E.
3. Backfill No. 2 stone into Block G excavation areas to begin partial backfill activities.
4. Waste characterization sampling in Block D Areas F and F1.
5. Surveyor onsite from Precision Surveys to establish ground control for additional Site Survey work.

Personnel On-Site

Name:		Company:	
Name:	Josh Mullis	Company:	Tetra Tech
Name:	Ivanna Goldsberry	Company:	Tetra Tech
Name:	Clyde Snyder	Company:	Tetra Tech
Name:	Ken Trent	Company:	Elite Environmental
Name:	Kyle Trent	Company:	Elite Environmental
Name:	Thomas Vernotzy	Company:	Elite Environmental
Name:	Joe Green	Company:	Elite Environmental
Name:	Jeff Sunstrom	Company:	Elite Environmental
Name:	Jimmy Grimm	Company:	Precision Surveys
Name:	Tyler Daily	Company:	Precision Surveys
Name:	Jim Yeager	Company:	LMC
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Slips, trips, and falls due to wet conditions from heavy rainfall over the weekend discussed.
2. Possible pinch points from various silt fence installation activities discussed.

QC Procedures/Inspections/Testing to be Performed Today

1. Waste characterization soil sampling completed in Block D areas F and F1.

Planned Week Schedule

1. Backfill of excavations in Block G (work is ongoing).
2. Block D construction entrance installation (work is ongoing).
3. Remove temporary 6' chain link fence in Block H (to be completed week of 6/29).
4. Pump storm water runoff from Block G excavation areas (work is ongoing).
5. Collect waste characterization samples (Block D Areas F and F1 completed 6/29).
6. Precision surveys continue survey work (work is ongoing).
7. Transfer water from frac tanks in Block G to the Clean Harbors Baltimore Facility (5 trucks, 30,000 gallons transferred 6/29).

Photos of Select Daily Activities



Comments: Clean harbors water transfer tanker truck in Block G.



Comments: Block G Area G partially backfilled with No. 2 stone.

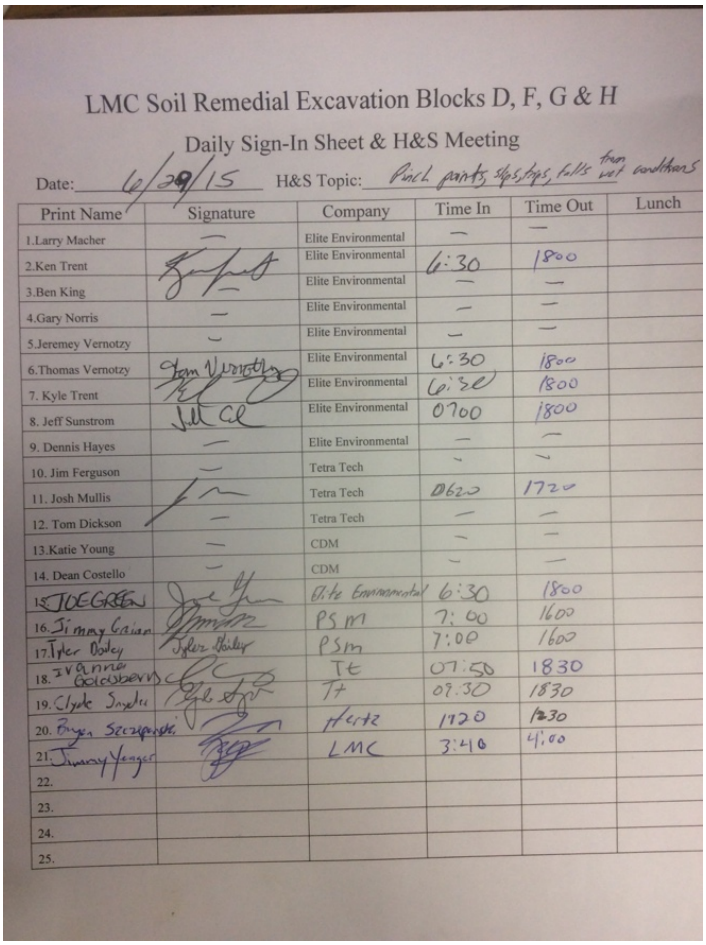
Photos of Select Daily Activities (continued)



Comments: Block G Area H partially backfilled with No. 2 stone.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/29/15 H&S Topic: Pinch points, slips, trips, falls from wet conditions

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher	—	Elite Environmental	—	—	
2.Ken Trent		Elite Environmental	6:30	1800	
3.Ben King	—	Elite Environmental	—	—	
4.Gary Norris	—	Elite Environmental	—	—	
5.Jeremey Vernotzy	—	Elite Environmental	—	—	
6.Thomas Vernotzy		Elite Environmental	6:30	1800	
7. Kyle Trent		Elite Environmental	6:30	1800	
8. Jeff Sunstrom		Elite Environmental	0700	1800	
9. Dennis Hayes	—	Elite Environmental	—	—	
10. Jim Ferguson	—	Tetra Tech	—	—	
11. Josh Mullis		Tetra Tech	0620	1720	
12. Tom Dickson	—	Tetra Tech	—	—	
13.Katie Young	—	CDM	—	—	
14. Dean Costello	—	CDM	—	—	
15. JOE GREEN		Elite Environmental	6:30	1800	
16. Jimmy Gaian		PSM	7:00	1600	
17. Tyler Dailey		PSM	7:00	1600	
18. IVANNA GOLDSBERRY		TE	07:50	1830	
19. Clyde Snyder		TT	09.30	1830	
20. Bryan Szczepanski		Hertz	1720	1830	
21. Jimmy Yeager		LMC	3:40	4:00	
22.					
23.					
24.					
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	June 30, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Overcast	Wind:	Moderate	Precipitation:	Heavy Rain

Weather Comments: Heavy rain and thunderstorms starting @1315

Summary of Work/Major Activities

1. Frac tank water located in Block G hauled offsite to Clean Harbors (4 trips, 24,000 gal approx).
2. Repair silt fence in Block F Area E.
3. Backfill No. 2 stone into Block G excavation areas to begin partial backfill activities.
4. Waste characterization sampling in Block D Areas A-E and Block D Panhandle Areas A-B.
5. Remove temporary 6' chain link fence in Block H.
6. STOP WORK starting @ 1315 due to heavy rain and thunderstorms.
7. Site walk with Jim Yeager, Lockheed Martin.
8. Baltimore County Inspector Jim Brendel on site, E&S inspection conducted in Blocks G and F and no deficiencies were found.

Personnel On-Site

Name:		Company:	
Name:	Josh Mullis	Company:	Tetra Tech
Name:	Jim Ferguson	Company:	Tetra Tech
Name:	Clyde Snyder	Company:	Tetra Tech
Name:	Ken Trent	Company:	Elite Environmental
Name:	Kyle Trent	Company:	Elite Environmental
Name:	Thomas Vernotzy	Company:	Elite Environmental
Name:	Jeff Sunstrom	Company:	Elite Environmental
Name:	Jim Brendel	Company:	Baltimore County
Name:	Dean Costello	Company:	CDM Smith
Name:	Jim Yeager	Company:	LMC
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Slips, trips, and falls due to wet conditions from heavy rainfall, high possibility of thunderstorms in the afternoon.
2. Possible pinch points from various silt fence installation activities discussed.

STOP WORK @ 1315 due to heavy rain and thunderstorms

QC Procedures/Inspections/Testing to be Performed Today

1. Waste characterization soil sampling completed in Block D Areas A-E and Block D Panhandle Areas A and B.

Planned Week Schedule

1. Backfill of excavations in Block G (work is ongoing).
2. Block D construction entrance installation (work is ongoing).
3. Remove temporary 6' chain link fence in Block H (completed 6/30).
4. Pump storm water runoff from Block G excavation areas (work is ongoing).
5. Collect waste characterization samples (Block D Areas F and F1 completed 6/29, Block D Areas A-E completed 6/30, Block D Panhandle Areas A-B completed 6/30).
6. Precision surveys continue survey work (work is ongoing).
7. Transfer water from frac tanks in Block G to the Clean Harbors Baltimore Facility (9 trucks, 54,000 gallons transferred total from 6/29-6/30).

Photos of Select Daily Activities



Comments: Block F site view with thunderstorms on the horizon.

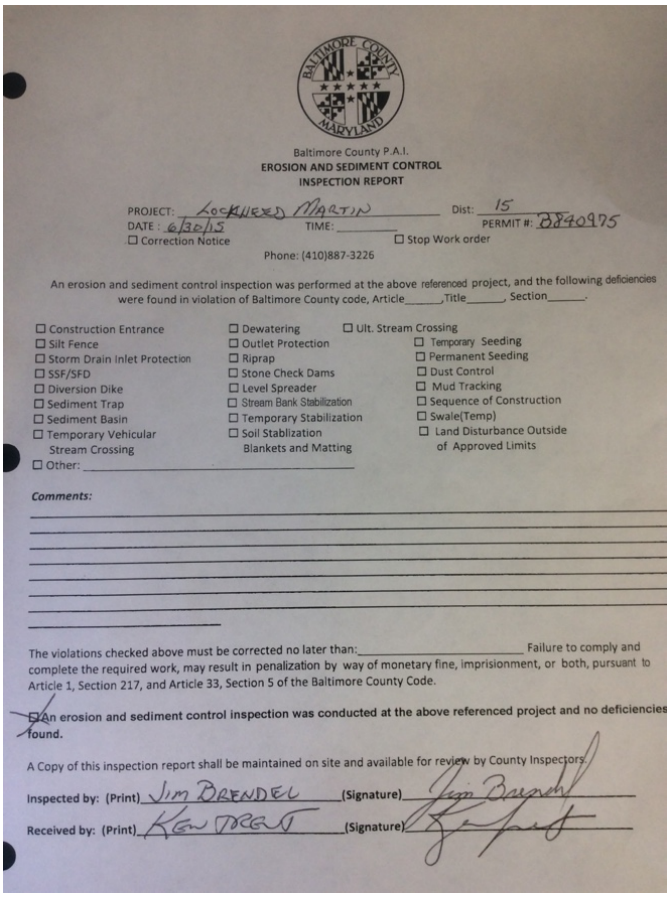


Comments: Block H Area B 6' temporary fencing removed.

Photos of Select Daily Activities (continued)



Comments: Block H Area A 6' temporary fencing removed.



Baltimore County P.A.I.
EROSION AND SEDIMENT CONTROL
INSPECTION REPORT

PROJECT: LOCKHEED MARTIN Dist: 15
DATE: 6/30/15 TIME: _____ PERMIT #: B840975
☐ Correction Notice ☐ Stop Work order
Phone: (410)887-3226

An erosion and sediment control inspection was performed at the above referenced project, and the following deficiencies were found in violation of Baltimore County code, Article_____,Title_____, Section_____.

☐ Construction Entrance	☐ Dewatering	☐ Ult. Stream Crossing
☐ Silt Fence	☐ Outlet Protection	☐ Temporary Seeding
☐ Storm Drain Inlet Protection	☐ Riprap	☐ Permanent Seeding
☐ SSF/SFD	☐ Stone Check Dams	☐ Dust Control
☐ Diversion Dike	☐ Level Spreader	☐ Mud Tracking
☐ Sediment Trap	☐ Stream Bank Stabilization	☐ Sequence of Construction
☐ Sediment Basin	☐ Temporary Stabilization	☐ Swale(Temp)
☐ Temporary Vehicular Stream Crossing	☐ Soil Stablization Blankets and Matting	☐ Land Disturbance Outside of Approved Limits

☐ Other: _____

Comments:

The violations checked above must be corrected no later than:_____ Failure to comply and complete the required work, may result in penalization by way of monetary fine, imprisionment, or both, pursuant to Article 1, Section 217, and Article 33, Section 5 of the Baltimore County Code.

☑ **An erosion and sediment control inspection was conducted at the above referenced project and no deficiencies found.**

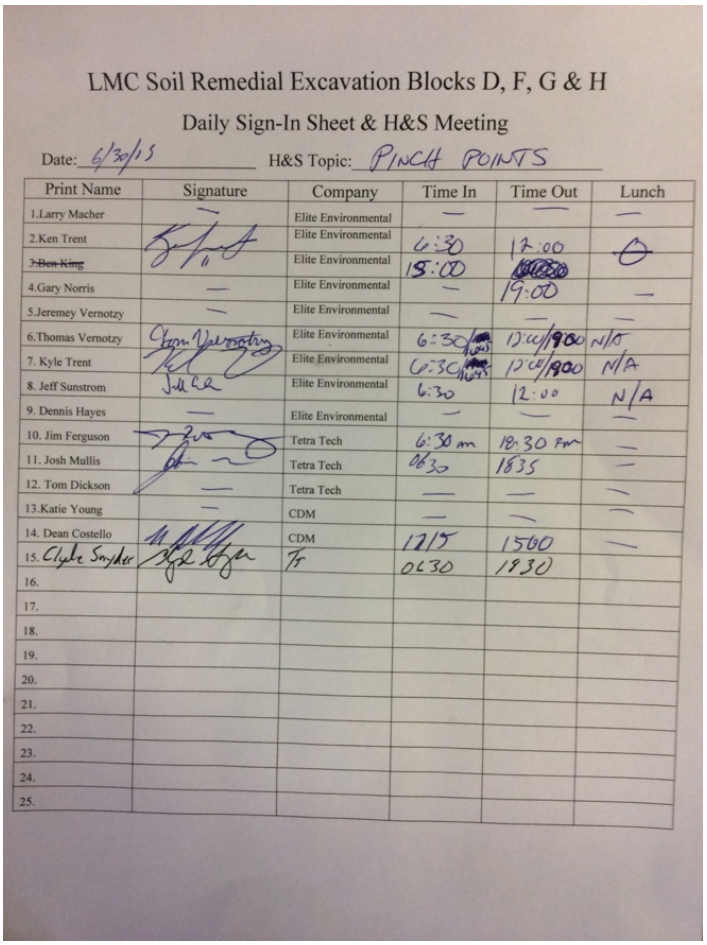
A Copy of this inspection report shall be maintained on site and available for review by County Inspectors.

Inspected by: (Print) JIM BRENDEL **(Signature)** _____

Received by: (Print) KEN TRENT **(Signature)** _____

Comments: E&S Inspection report for inspection conducted 6/30/15.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 6/30/15 H&S Topic: PINCH POINTS

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher	—	Elite Environmental	—	—	—
2.Ken Trent		Elite Environmental	6:30	12:00	
~~3.Ben King~~		Elite Environmental	15:00		
4.Gary Norris	—	Elite Environmental	—	19:00	—
5.Jeremey Vernotzy	—	Elite Environmental	—	—	—
6.Thomas Vernotzy		Elite Environmental	6:30	12:00/900	N/A
7. Kyle Trent		Elite Environmental	6:30	12:00/900	N/A
8. Jeff Sunstrom		Elite Environmental	6:30	12:00	N/A
9. Dennis Hayes	—	Elite Environmental	—	—	—
10. Jim Ferguson		Tetra Tech	6:30 am	18:30 PM	—
11. Josh Mullis		Tetra Tech	0630	1835	—
12. Tom Dickson	—	Tetra Tech	—	—	—
13.Katie Young	—	CDM	—	—	—
14. Dean Costello		CDM	1215	1500	—
15. Clyde Snyder		TF	0630	1930	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 6, 2015	Start Work at:	6:30 AM	Depart Site at:	4:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Partly Cloudy	Wind:	Moderate	Precipitation:	None

Weather Comments:

Summary of Work/Major Activities

1. Excavate completely Block D Area B, load out 14 trucks, and complete verification sampling.
2. Begin excavating Block D Area A, load out 4 trucks, and partially complete verification sampling.
3. Complete exploratory digging with mini excavator in Block D Area C for underground storm drain that runs through excavation, storm drain pipe located at 3'4" bgs, excavation is to 2' bgs, therefore, no issues will arise during excavation.
4. Conduct air monitoring while excavating in Block D with the MultiRae PID and DUSTRAKK monitors.
5. Secure Block D Areas A and B open excavations with orange fencing.

Personnel On-Site

Name:	Company:
Josh Mullis	Tetra Tech
Jim Ferguson	Tetra Tech
Clyde Snyder	Tetra Tech
Larry Macher	Elite Environmental
Ken Trent	Elite Environmental
Kyle Trent	Elite Environmental
Thomas Vernotzy	Elite Environmental
Dean Costello	CDM Smith
Scott Nesbit	Tetra Tech
Ivanna Goldsberry	Tetra Tech
Tom Blackman	Lockheed Martin
J. Herman	MDE-OCP
G. Schold	MDE-LRP
Mike Martin	Tetra Tech

Health & Safety Topics or Issues

1. Operator safety on excavators; stay out of Line of Fire, watch swing patterns of excavator.
2. Slips, trips, and falls - uneven/unstable ground.
3. Heat stress: drink plenty of fluids and take breaks.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring during excavations in Block D with a MultiRae PID and DUSTRAKK Air monitors.
2. Conduct verification sampling in Block D Areas A and B.

Planned Week Schedule

1. Air monitoring via DUSTRAKK monitors and/or Multirae Photoionization (PID) detector (performed during excavation activities).
2. Continue to backfill Block F excavations with select fill (top soil placement and reseeding to be completed by 8/14).
3. Conduct exploratory UST investigation in Block F UST area (completed 8/3).
4. Move jersey barriers from Block F to Block G Area I for silt boom deployment (completed 8/3).
5. Investigate Block F Area A pipe area for possible USTs (initial investigation completed 8/4).
6. Baltimore County Inspector Jim Brendel approves E&S controls in Block D and D Panhandle (completed 8/5).
7. Await approvals to begin work for Block G UST Area, Block G Transformer Area, Block G Area I and approval for recycling facility for asphalt and concrete generated during the soil remedy project.
8. Begin Block D excavation and soil load out activities (Area B complete 8/6, Area A partially complete 8/6).
9. Conduct verification sampling of base and sidewalls of excavations in Block D (Area B complete 8/6, Area A partially complete 8/6).

Tentative schedule for week of 8/10
1. Continue to excavate, load out trucks, and conduct verification sampling in Block D.
2. Continue to backfill Block F excavations with select fill, topsoil, and reseeding.
3. Await approvals to begin work for Block G UST Area, Block G Transformer Area, Block G Area I and approval for recycling facility for asphalt and concrete generated during the soil remedy project.

Photos of Select Daily Activities



Comments: Block D Area B excavation and truck loading activities.



Comments: Block D Area B eastern sidewall, asphalt and slag layers down to 2 ft bgs.

Photos of Select Daily Activities (continued)

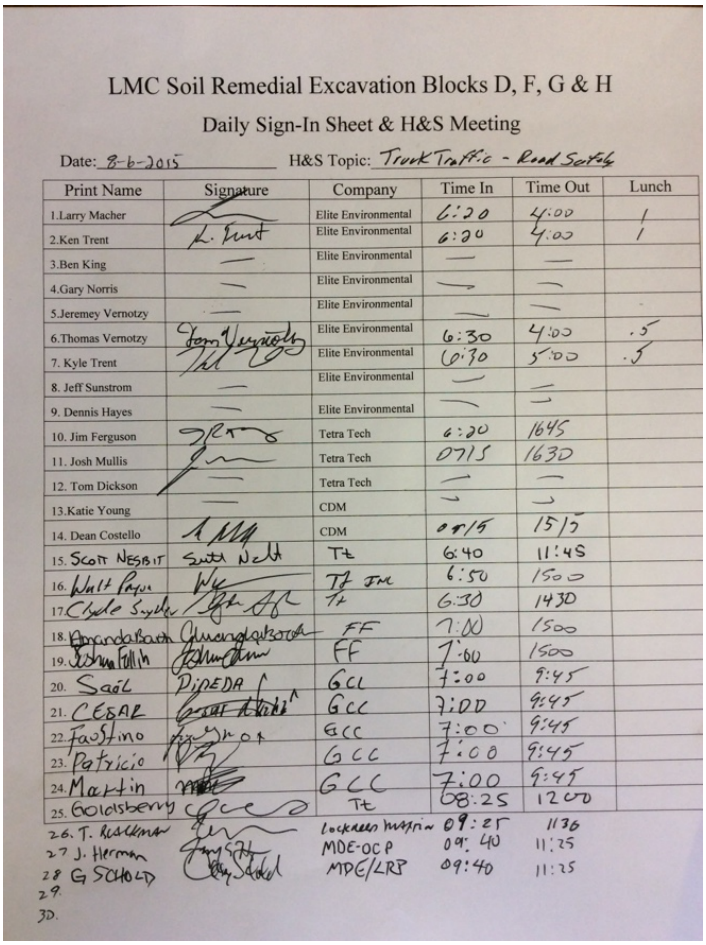


Comments: Block D Area A excavation and truck loading activities.



Comments: Block D Area B excavation secured with orange fencing.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8-6-2015 H&S Topic: Truck Traffic - Road Safety

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:20	4:00	1
2.Ken Trent	K. Trent	Elite Environmental	6:20	4:00	1
3.Ben King	—	Elite Environmental	—	—	
4.Gary Norris	—	Elite Environmental	—	—	
5.Jeremey Vernotzy	—	Elite Environmental	—	—	
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	4:00	.5
7. Kyle Trent		Elite Environmental	6:30	5:00	.5
8. Jeff Sunstrom	—	Elite Environmental	—	—	
9. Dennis Hayes	—	Elite Environmental	—	—	
10. Jim Ferguson		Tetra Tech	6:20	1645	
11. Josh Mullis		Tetra Tech	0715	1630	
12. Tom Dickson	—	Tetra Tech	—	—	
13.Katie Young	—	CDM	—	—	
14. Dean Costello		CDM	0715	1515	
15. Scott Nesbit	Scott Nesbit	Tt	6:40	11:45	
16. Walt Payne		Tt JM	6:50	1500	
17. Clyde Snyder		Tt	6:30	1430	
18. Amanda Barton		FF	7:00	1500	
19. Joshua Fallin		FF	7:00	1500	
20. Saúl	PINEDA	GCL	7:00	9:45	
21. CESAR		GCC	7:00	9:45	
22. Faustino		GCC	7:00	9:45	
23. Patricio		GCC	7:00	9:45	
24. Martin		GCC	7:00	9:45	
25. Goldsberry		Tt	08:25	1200	
26. T. Blackman		Lockheed Martin	09:25	1136	
27 J. Herman		MDE-OCP	09:40	11:25	
28 G SCHOLD		MDE/LRP	09:40	11:25	
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30.					

Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 12, 2015	Start Work at:	6:30 PM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Wind out of the northeast.

Summary of Work/Major Activities

1. Set up DUSTRAKK air monitors in Block D for excavation activities. In addition to the DUSTRAKK monitors, personal air sampling equipment (aluminum cyclone device) was placed in the cab of the excavator and on a DUSTRAKK device for analytical sampling for crystalline silica and PAH concentrations.
2. Continue excavating in Block D; Area A complete (10 trucks loaded), Area C complete (16 trucks loaded), Area E partially complete (5 trucks loaded).
3. Collect verification sidewall and base samples from Block D excavation Areas A, C, and E (E partially complete).
4. Block D Area C specifics: Two telephone poles were located in the southwest corner of the excavation. Both poles (approximately 6' long) were removed from the ground and left in the excavation.
5. Block D Area E: While loading out trucks in Block D Area E, soft grass conditions and heavy trucks created large ruts in the grass. Contacted John Morgan of LMCPI regarding the soft soil conditions in the Block D Areas E/F excavations, requested permission to place stone down to facilitate access, placement was authorized. Areas are to be restored upon completion of project. No. 2 stone was then delivered and placed into and around disturbed areas.
6. Use mini excavator to attempt to locate various storm drains running through Block D for future work in the Block D Seep Area.
7. Hertz Equipment delivers a street sweeper and a small dump truck to move stone for Block D disturbed grass area.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
J. Mullis	Tetra Tech
K. Trent	Elite Environmental
L. Macher	Elite Environmental
T. Vernotzy	Elite Environmental
Ky. Trent	Elite Environmental
F. Kolberg	Tetra Tech
J. Mullin	Enviroscan
D. Costello	CDM Smith
G. Norris	Elite Environmental

Health & Safety Topics or Issues

1. Equipment safety, spotters and appropriate PPE for traffic areas.
2. Heat stress, higher temps during mid-day, stay hydrated and take breaks.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring during excavations in Block D with a MultiRae PID and DUSTRAKK Air monitors.
2. Air sampling for particulates (crystalline silica and PAH) during excavation activities (samples sent to lab).
3. Verification sidewall and base soil sampling in Block D Areas A, C, and E (E partially complete).

Planned Week Schedule

1. Exploratory test digging in Block F UST Area (complete 8/10).
2. Excavate soil and load out trucks in Block D (Area A complete 8/12, Area B complete 8/6, Area C complete 8/12, Area E begun 8/12).
3. Conduct verification soil sampling in Block D (Area A complete 8/12, Area B complete 8/6, Area C complete 8/12, Area E partially complete 8/12).
4. Air monitoring during excavations in Block D with DUSTRAKK air monitors and a MultiRae PID (ongoing).
5. Collect air particulate samples for crystalline silica and PAH (completed 8/12 during excavation activities).
6. Place No. 2 stone on disturbed grassy areas in Block D for future truck load out in Areas E, F, and F1 (stone placed 8/12).

Photos of Select Daily Activities



Comments: 1. Block D Area E, wooden poles in excavation.



Comments: 2. DUSTRAKK air monitoring system and air particulate sampler (aluminum cyclone) downwind of Block D Area E during excavation activities.

Photos of Select Daily Activities (continued)

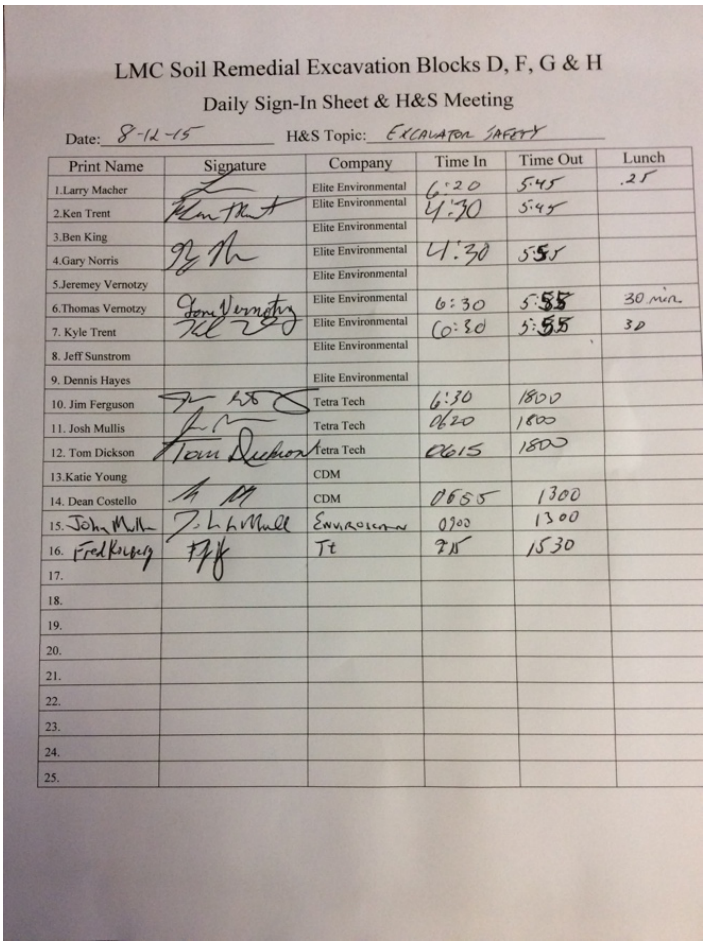


Comments: 3. Block D Area C, poles removed from ground in southwest corner.



Comments: 4. Placement of #2 stone to allow access into Block F Areas E and F.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8-12-15 H&S Topic: EXCAVATION SAFETY

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:20	5:45	.25
2.Ken Trent		Elite Environmental	4:30	5:45	
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	4:30	5:55	
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental	6:30	5:55	30 min
7. Kyle Trent		Elite Environmental	6:30	5:55	30
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	1800	
11. Josh Mullis		Tetra Tech	0620	1800	
12. Tom Dickson		Tetra Tech	0615	1800	
13.Katie Young		CDM			
14. Dean Costello		CDM	0655	1300	
15. John Mullis		Environmental	0700	1300	
16. Fred Kirby		Tt	715	1530	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 13, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments:

Summary of Work/Major Activities

1. Soil load out in Block D Areas E and F1.
2. Pumped storm water from Block D Areas A and C into rain for rent frac tank staged in Block D.
3. Camz Corp. delivers select fill material (540 tons) to Block D for backfill of excavations completed to date.
4. A.V. Burke LLC surveys bases of completed excavations in Block D Areas A, B, C and E. Surveyors will also locate tie back pilings within the limits of the respective excavation areas.
5. Personal ambient air samples were collected for PAH's and crystalline silica (respirable dust fraction) via aluminum cyclone pumps as well as the DUSTRAKK air monitors.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
J. Mullis	Tetra Tech
L. Macher	Elite Env.
J. Green	Elite Env.
K. Trent	Elite Env.
T. Vernotzy	Elite Env.
V. Burke	A.V. Burke LLC
Vinnie Burke	A.V. Burke LLC

Health & Safety Topics or Issues

1. Vehicle and equipment safety concerns (visibility, pinch points, backup alarms).
2. Personal ambient air monitoring.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring during excavations in Block D with a MultiRae PID and DUSTRAKK air monitors.
2. Air sampling for particulates (crystalline silica and PAH) during excavation activities (samples sent to lab).
3. Verification sidewall and base soil sampling in Block D Area E.

Planned Week Schedule

1. Exploratory test digging in Block F UST Area (complete 8/10).
2. Excavate soil and load out trucks in Block D (Area A complete 8/12, Area B complete 8/6, Area C complete 8/12, Area E complete 8/13, Area F1 begun 8/13).
3. Conduct verification soil sampling in Block D (Area A complete 8/12, Area B complete 8/6, Area C complete 8/12, Area E complete 8/13).
4. Air monitoring during excavations in Block D with DUSTRAKK air monitors and a MultiRae PID (ongoing).
5. Collect air particulate samples for crystalline silica and PAH (completed 8/12 and 8/13 during excavation activities).
6. Place No. 2 stone on disturbed grassy areas in Block D for future truck load out in Areas E, F, and F1 (stone placed 8/12).
7. Begin to backfill completed Block D excavation areas (540 tons delivered 8/13).
8. Pump out storm water from Block D excavations into frac tank staged in Block D (begin pumping 8/13).
9. Survey post excavation limits of Block D Areas A, B, C, and E (completed 8/13).

Photos of Select Daily Activities



Comments: 1. Realtime ambient air monitoring during excavation activities.



Comments: 2. Excavation of soil in Block D Area E.

Photos of Select Daily Activities (continued)

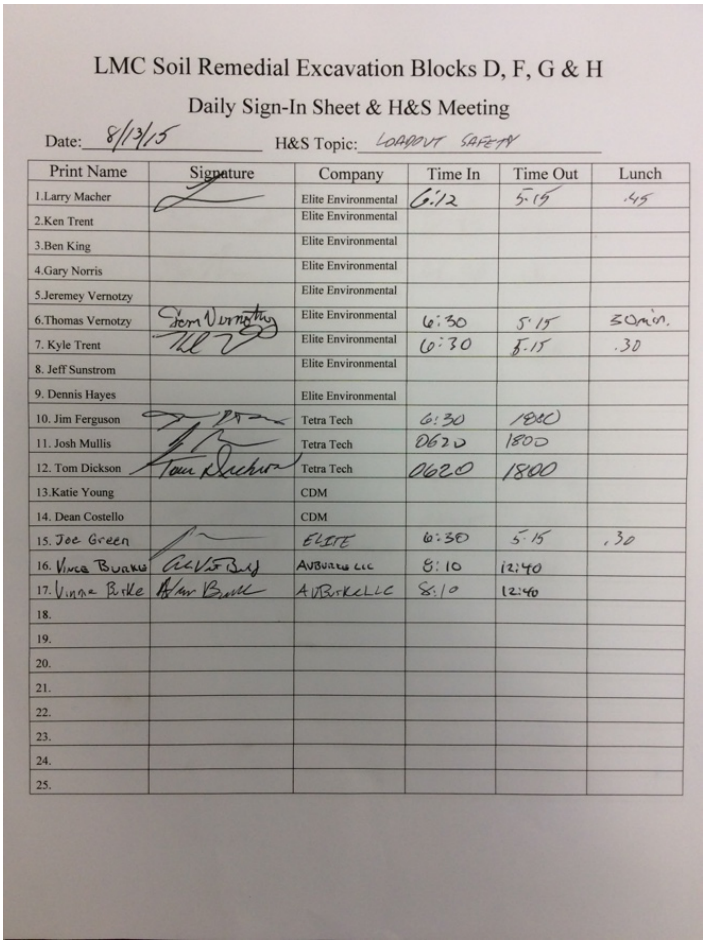


Comments: 3. Bulkhead tie back pilings in Block D excavation Area F1. Also excavated from 3' to 5' in the southeast corner of Area F1 containing tarry, asphaltic material.



Comments: 4. Tarry asphaltic material removed from southeast corner of Block D Area F1.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8/13/15 H&S Topic: LOADOUT SAFETY

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:12	5:15	.45
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental	6:30	5:15	30min.
7. Kyle Trent		Elite Environmental	6:30	5:15	.30
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	1800	
11. Josh Mullis		Tetra Tech	0620	1800	
12. Tom Dickson		Tetra Tech	0620	1800	
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. Joe Green		ELITE	6:30	5:15	.30
16. Vince Burke		AVBurke LLC	8:10	12:40	
17. Vince Burke		AVBurkeLLC	8:10	12:40	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 14, 2015	Start Work at:	7:00 AM	Depart Site at:	4:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Soil load out in Block D Area F.
2. Air monitoring via DUSTRAKK monitors and MultiRae PID.
3. Verification base sampling in Block D Area F.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	K. Trent	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Vehicle and equipment safety concerns (visibility, pinch points, backup alarms).
2. Heat stress: drink plenty of fluids and take breaks.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring during excavations in Block D with a MultiRae PID and DUSTRAKK air monitors.
2. Verification sidewall and base soil sampling in Block D Area F.

Planned Week Schedule

1. Exploratory test digging in Block F UST Area (complete 8/10).
2. Excavate soil and load out trucks in Block D (Area A complete 8/12, Area B complete 8/6, Area C complete 8/12, Area E complete 8/13, Area F1 begun 8/13, Area F begun 8/14).
3. Conduct verification soil sampling in Block D (Area A complete 8/12, Area B complete 8/6, Area C complete 8/12, Area E complete 8/13, Area F partially complete 8/14).
4. Air monitoring during excavations in Block D with DUSTRAKK air monitors and a MultiRae PID (ongoing).
5. Collect air particulate samples for crystalline silica and PAH (completed 8/12 and 8/13 during excavation activities).
6. Place No. 2 stone on disturbed grassy areas in Block D for future truck load out in Areas E, F, and F1 (stone placed 8/12).
7. Begin to backfill completed Block D excavation areas (540 tons delivered 8/13).
8. Pump out storm water from Block D excavations into frac tank staged in Block D (begin pumping 8/13).
9. Survey post excavation limits of Block D Areas A, B, C, and E (completed 8/13).

Tentative Schedule for week of 8/17
1. Continue excavating Block D Areas F, F1, and D.
2. Continue to backfill Block D excavations with select fill.
3. Complete backfilling Block F excavations with topsoil and seeding (to be completed 8/17).
4. Dig around the tieback system found in Block D Area F1 to delineate condition of system.

Photos of Select Daily Activities



Comments: Excavation and soil load out in Block D Area F.



Comments: Concrete rubble with asphalt roofing materials (tar) found in Block D Area F.

Photos of Select Daily Activities (continued)

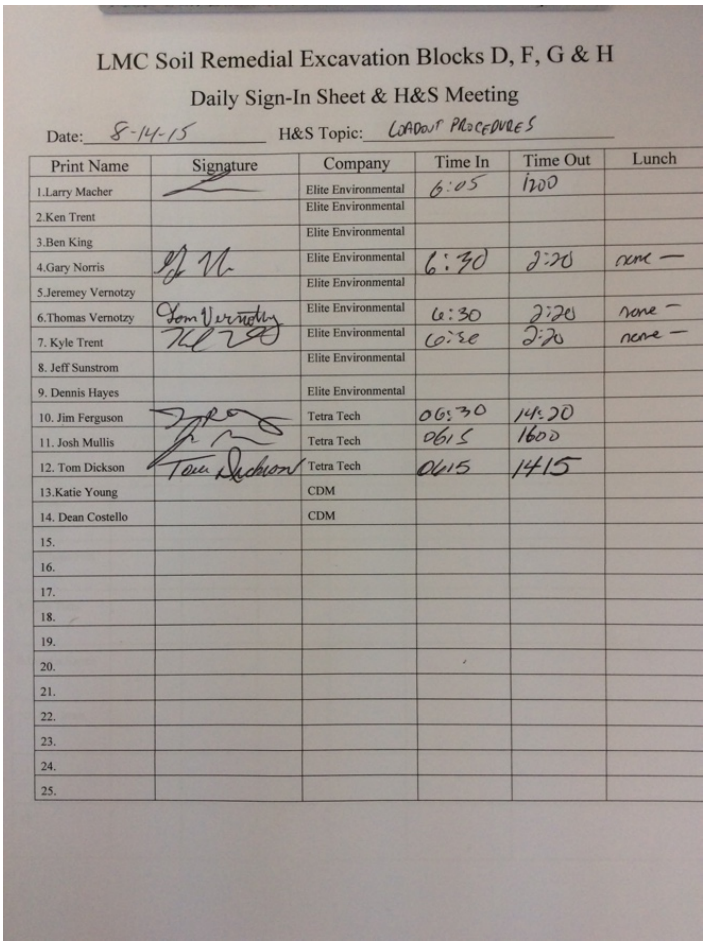


Comments: Excavation and soil load out in Block D Area F.



Comments: Orange fencing placed around Block D Area F excavation.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8-14-15 H&S Topic: LOADOUT PROCEDURES

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:05	1700	
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	2:20	none —
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	2:20	none —
7. Kyle Trent		Elite Environmental	6:30	2:20	none —
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	06:30	14:20	
11. Josh Mullis		Tetra Tech	0615	1600	
12. Tom Dickson	Tom Dickson	Tetra Tech	0615	1415	
13.Katie Young		CDM			
14. Dean Costello		CDM			
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 19, 2015	Start Work at:	6:45 AM	Depart Site at:	5:45 AM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Overcast	Wind:	Other (explain)	Precipitation:	—

Weather Comments: High 90 deg, humidity 53%

Summary of Work/Major Activities

Block D
1) Excavated Area F1 to 3-feet, 29 trucks offsite
2) Survey completed portion of Area F to confirm excavated to desired depth (2-feet).
3) Begin backfilling Area F with stockpiled/staged select fill.
4) Hydroseed restored, Area E - See description Block F.
5) Restored Block D, Areas A, B, C, and E with asphalt millings.
5a) Topsoil - One load of topsoil spread and scarifier on Area E prior to hydro seeding.

Block F
6) Restored Areas A, B, C, D, & E - This included spreading seed; covered then with straw; then a sprayed hydro mulch mixture
7) Two loads of topsoil were delivered and spread over Area E.

Personnel On-Site

Name:	Company:
Scott Nesbit	Tetra Tech
Tom Dickson	Tetra Tech
Larry Macher	Elite Environmental
Gary Norris	Elite Environmental
Tom Vernotzy	Elite Environmental
Kyle Trent	Elite Environmental
Vincent Burke	AV Burke LLC Surveying
Vinny Burke	AV Burke LLC Surveying

Health & Safety Topics or Issues

Heat stress/strain
Stay well hydrated, take breaks often; limit physically taxing activities
Watch out for each other
Use your cards as reference report to SSHO if you are experiencing signs and symptoms of Heat stress.

Truck and loading safety - This includes placement of the truck during offloading and your placement during dumping - Back away from the truck (at least the height of the bed) during offloading in case the load sticks and the truck tips over;
Place the truck on firm flat ground before dumping.
Exercise caution during dumping not to approach the sea wall to close due to instability.

Hearing conservation and the use of hearing protection. All open cab equipment requires the use of hearing protection plugs or muffs

QC Procedures/Inspections/Testing to be Performed Today

Verification sampling conducted Block D, Area F1. Sidewalls VS-1 & 2; VB- 2, 3, 6, 7, 8, & 9

Planned Week Schedule

1) Empty and decon water storage tank (8/20), Block G
2) Backfill Block D, Area F, F1 (portion thereof); begin 8/19
3) Continue to excavate Block D, Area F, F1 (began 8/19)

Photos of Select Daily Activities



Comments: Block D, Area E - Restored hydro seeded area.



Comments: Surveying Block D, Area F.

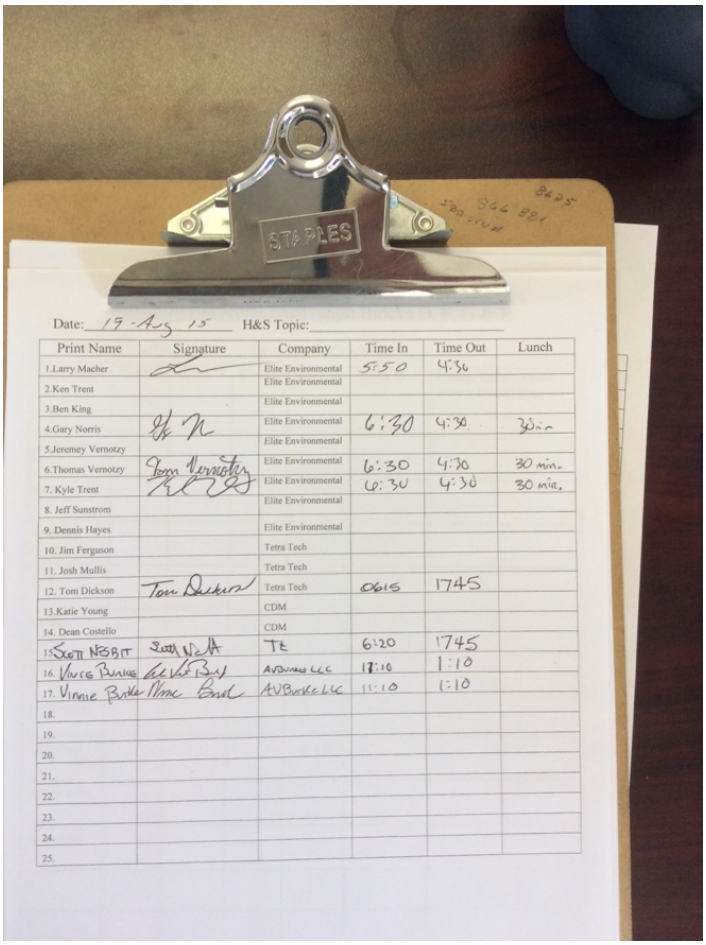
Photos of Select Daily Activities (continued)



Comments: Tieback structure, Area F1.

Comments:

Safety Sign-In Sheet



Date: 19-Aug 15 H&S Topic:

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	4:36	
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	4:30	30 min
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental	6:30	4:30	30 min.
7. Kyle Trent		Elite Environmental	6:30	4:30	30 min.
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech			
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech	0615	1745	
13.Katie Young		CDM			
14. Dean Costello		CDM			
15. Scott NESBIT		TE	6:20	1745	
16. Vince Burke		AVBurke LLC	11:10	1:10	
17. Vinnie Burke		AVBurke LLC	11:10	1:10	
18.					
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23.					
24.					
25.					

Construction Manager

Scott A-Nesbit

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 24, 2015	Start Work at:	6:30 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Few Clouds	Wind:	Light	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Continue excavating Block D Areas F and F1.
2. Continue backfilling excavation areas in Block D.
3. Complete verification sidewall and base sampling in Block D Area F.
4. Monitor dust conditions from excavation/backfilling activities with DUSTRAKK air monitors.
5. Survey post-excavation limits in Block D Area F1.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	J. Green	Company:	Elite Environmental
Name:	Bryan S.	Company:	Hertz
Name:	V. Burke	Company:	AV Burke LLC
Name:	Vi. Burke	Company:	AV Burke LLC
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Operator safety, stay out of the line of fire w/ swing of bucket, always use a spotter.
2. Hot and humid conditions; stay hydrated, wear sun block, take breaks.
3. Slight chance of thunderstorms in the late afternoon, be prepared to stop work if necessary.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring via DUSTRAKK monitors and MultiRae PID.
2. Verification sidewall and base sampling in excavation areas F and F1 in Block D.

Planned Week Schedule

1. Air monitoring via DUSTRAKK monitors and/or Multirae Photoionization (PID) detector (performed during excavation activities).
2. Continue to excavate in Block D (Area F1 complete 8/24, Area F ongoing).
3. Continue to backfill Block D excavations with select fill (ongoing).
4. Conduct verification sampling of base and sidewalls of excavations in Block D (ongoing).
5. Survey post excavation limits in Block D Area F1 (completed 8/24).

Tentative schedule for week of 8/24
1. Continue to excavate, load out trucks, and conduct verification sampling in Block D Area F.
2. Continue to backfill Block D excavations F and F1 with select fill.

Photos of Select Daily Activities



Comments: Excavation activities in Block D Areas F and F1.



Comments: Dump truck getting ready to dump a load of select fill for backfilling activities in Block D Area F.

Photos of Select Daily Activities (continued)

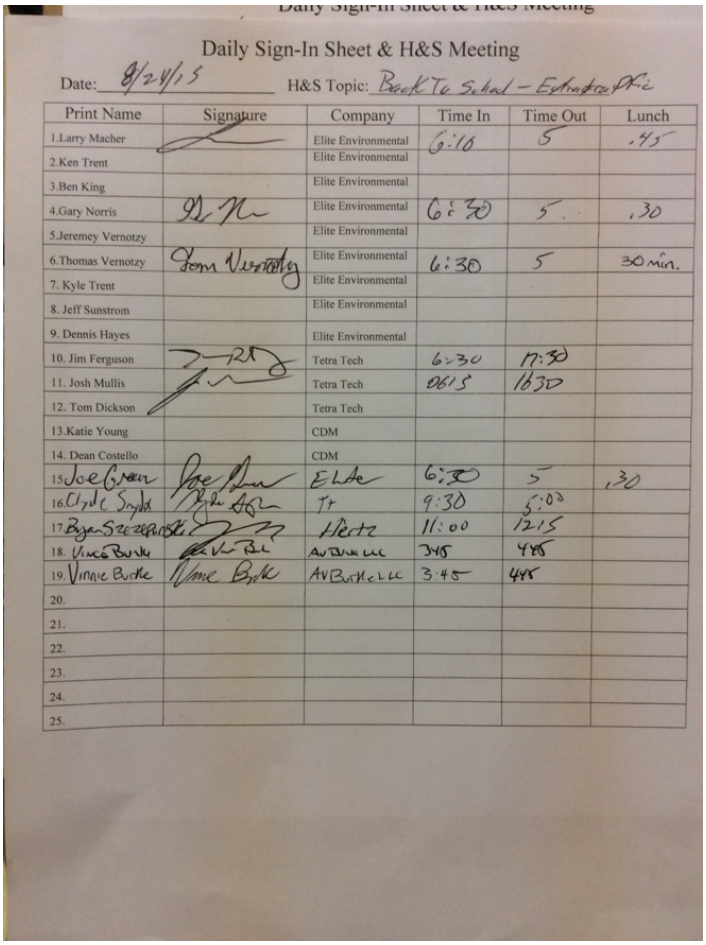


Comments: Block D Area F partially backfilled with select fill.



Comments: Block D Areas F and F1.

Safety Sign-In Sheet



Daily Sign-In Sheet & H&S Meeting

Date: 8/24/15 H&S Topic: Back To School – Extra Traffic

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:10	5	.45
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	5	.30
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	5	30 min.
7. Kyle Trent		Elite Environmental			
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	17:30	
11. Josh Mullis		Tetra Tech	0615	1630	
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM			
15.Joe Green		Elite	6:30	5	.30
16.Clyde Smith		Tt	9:30	5:00	
17.		Hertz	11:00	12:15	
18. Vince Burke		AV Burke LLC	345	445	
19.Vinnie Burke		AV Burke LLC	3:45	445	
20.					
21.					
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 25, 2015	Start Work at:	6:30 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Few Clouds	Wind:	Moderate	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Complete excavating Block D Areas F and D.
2. Complete verification sidewall and base sampling in Block D Area F.
3. Monitor dust conditions from excavation/backfilling activities with DUSTRAKK air monitors.
4. Pump storm water from Block D Areas F and F1 into the frac tank staged in Block D.
5. Collect waste characterization sample from the Block D frac tank for future disposal.
6. Survey post excavation limits of Block D Areas F and D.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	J. Green	Company:	Elite Environmental
Name:	V. Burke	Company:	AV Burke LLC
Name:	Vi. Burke	Company:	AV Burke LLC
Name:	D. Costello	Company:	CDM Smith
Name:	J. Vernotzy	Company:	Elite Environmental
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Operator safety, stay out of the line of fire w/ swing of bucket, always use a spotter.
2. Hot and humid conditions; stay hydrated, wear sun block, take breaks.
3. Heavy rain last night causing wet slippery conditions today, beware of slips trips and falls.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring via DUSTRAKK monitors and MultiRae PID.
2. Verification sidewall and base sampling in excavation Areas F and D in Block D.
3. Waste characterization sample collected from Block D frac tank holding storm water.

Planned Week Schedule

1. Air monitoring via DUSTRAKK monitors and/or Multirae Photoionization (PID) detector (performed during excavation/backfilling activities).
2. Excavate in Block D (all areas complete excavation 8/25).
3. Continue to backfill Block D excavations with select fill (ongoing).
4. Conduct verification sampling of base and sidewalls of excavations in Block D (completed 8/25).
5. Survey post excavation limits in Block D (Area F1 completed 8/24, Areas F and D completed 8/25).
6. Pump storm water from Block D Areas F and F1 excavations into frac tank in Block D (ongoing).
7. Collect a waste characterization sample from the frac tank in Block D containing storm water pumped from excavations for future disposal (collected 8/25).

Photos of Select Daily Activities



Comments: Excavation and truck loading activities in Block D Area F excavation.



Comments: Storm water pumped out from Block D excavation Areas F and F1 into frac tank.

Photos of Select Daily Activities (continued)

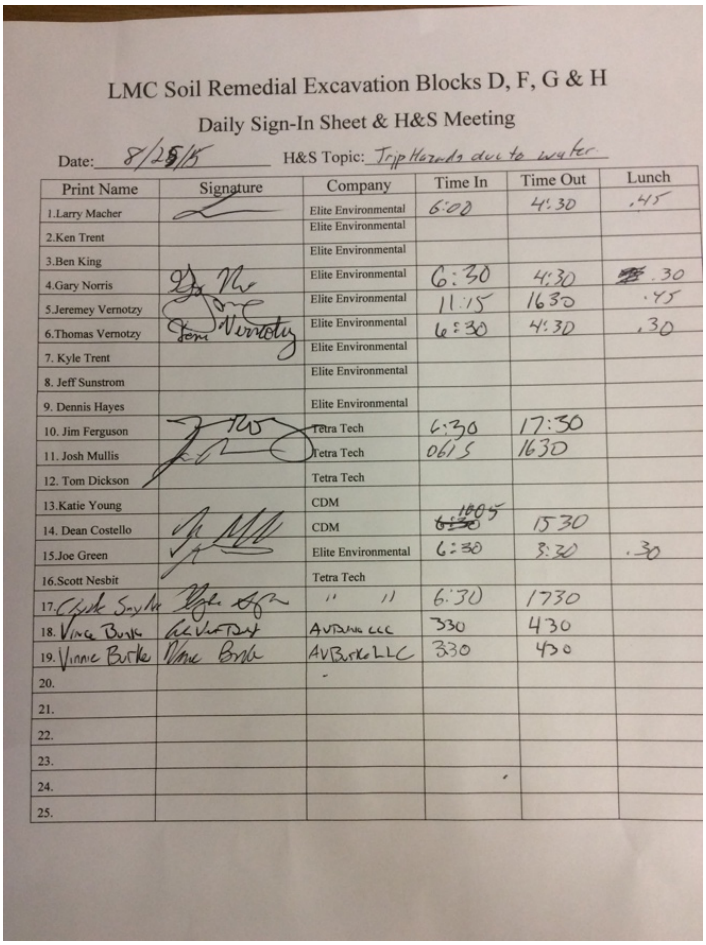


Comments: Excavation and truck loading activities in Block D Area D.



Comments: Block D Area D secured with orange fencing.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8/25/15 H&S Topic: Trip Hazards due to water

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:00	4:30	.45
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	4:30	.30
5.Jeremey Vernotzy		Elite Environmental	11:15	1630	.45
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	4:30	.30
7. Kyle Trent		Elite Environmental			
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	17:30	
11. Josh Mullis		Tetra Tech	0615	1630	
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	~~6:30~~ 1805	1530	
15.Joe Green		Elite Environmental	6:30	3:30	.30
16.Scott Nesbit		Tetra Tech			
17. Clyde Snyder		" "	6:30	1730	
18. Vince Burke		AVBurke LLC	330	430	
19. Vinnie Burke	Vince Burke	AVBurkeLLC	330	430	
20.					
21.					
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 26, 2015	Start Work at:	6:30 AM	Depart Site at:	5:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Few Clouds	Wind:	Moderate	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Backfill Block D Areas F and D with select fill.
2. Monitor dust conditions from backfilling activities with DUSTRAKK air monitors.
3. Hertz maintenance on site to place track back on mini excavator.
4. Decontaminate excavator bucket with pressure washer in Block D so that it may be used for future excavations.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	J. Vernotzy	Company:	Elite Environmental
Name:	Bryan S.	Company:	Hertz
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Operator safety, stay out of the line of fire w/ swing of bucket, always use a spotter.
2. Hot and humid conditions; stay hydrated, wear sun block, take breaks.
3. Back to school this week; extra traffic, be mindful of school buses and pedestrians.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring via DUSTRAKK monitors and MultiRae PID during backfilling.
2. Decontaminate excavator bucket in Block D.

Planned Week Schedule

1. Air monitoring via DUSTRAKK monitors and/or Multirae Photoionization (PID) detector (performed during excavation/backfilling activities).
2. Excavate in Block D (all areas complete excavation 8/25).
3. Continue to backfill Block D excavations with select fill (ongoing).
4. Conduct verification sampling of base and sidewalls of excavations in Block D (completed 8/25).
5. Survey post excavation limits in Block D (Area F1 completed 8/24, Areas F and D completed 8/25).
6. Pump storm water from Block D Areas F and F1 excavations into frac tank in Block D (ongoing).
7. Collect a waste characterization sample from the frac tank in Block D containing storm water pumped from excavations for future disposal (collected 8/25).

Photos of Select Daily Activities



Comments: Hertz maintenance on site to place track back on mini excavator.



Comments: Decontaminated excavator bucket in Block D (via pressure washer).

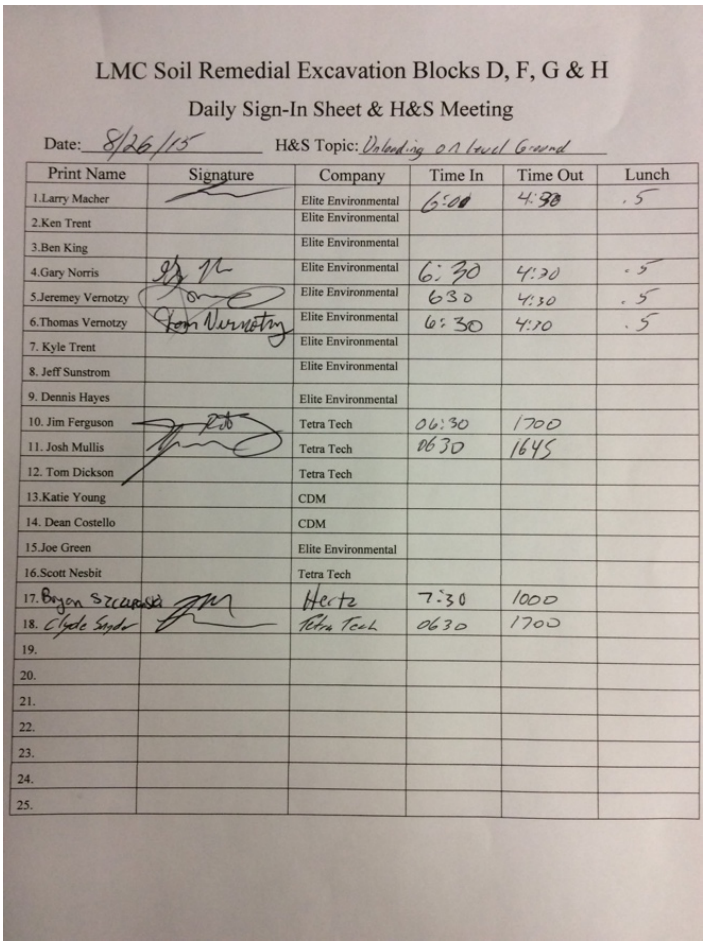
Photos of Select Daily Activities (continued)



Comments: Block D Area F and F1 in the process of backfilling with select fill.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8/26/15 H&S Topic: Unloading on level ground

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:00	4:30	.5
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	4:30	.5
5.Jeremey Vernotzy		Elite Environmental	630	4:30	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	4:30	.5
7. Kyle Trent		Elite Environmental			
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	06:30	1700	
11. Josh Mullis		Tetra Tech	0630	1645	
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM			
15.Joe Green		Elite Environmental			
16.Scott Nesbit		Tetra Tech			
17. Bryan Szczawa		Hertz	7:30	1000	
18. Clyde Snyder		Tetra Tech	0630	1700	
19.					
20.					
21.					
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 27, 2015	Start Work at:	6:30 AM	Depart Site at:	4:45 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Clear	Wind:	Moderate	Precipitation:	None

Weather Comments:

Summary of Work/Major Activities

1. Backfill Block D Areas F and D with select fill.
2. Monitor dust conditions from backfilling activities with DUSTRAKK air monitors.
3. Collect an additional waste characterization sample for Block D Panhandle as requested by the disposal facility.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	J. Vernotzy	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	D. Costello	Company:	CDM Smith
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Operator safety, stay out of the line of fire w/ swing of bucket, always use a spotter.
2. Hot and humid conditions; stay hydrated, wear sun block, take breaks.
3. Back to school this week; extra traffic, be mindful of school buses and pedestrians.

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitoring via DUSTRAKK monitors during backfilling.
2. Collect an additional waste characterization sample for Block D Panhandle as requested by the disposal facility.

Planned Week Schedule

1. Air monitoring via DUSTRAKK monitors and/or Multirae Photoionization (PID) detector (performed during excavation/backfilling activities).
2. Excavate in Block D (all areas complete excavation 8/25).
3. Continue to backfill Block D excavations with select fill (ongoing).
4. Conduct verification sampling of base and sidewalls of excavations in Block D (completed 8/25).
5. Survey post excavation limits in Block D (Area F1 completed 8/24, Areas F and D completed 8/25).
6. Pump storm water from Block D Areas F and F1 excavations into frac tank in Block D (ongoing).
7. Collect a waste characterization sample from the frac tank in Block D containing storm water pumped from excavations for future disposal (collected 8/25).

Tentative Schedule for Week of 8/31
1. Begin Block G UST Investigation.
2. Continue backfilling Block D excavation Areas F, F1, and D with select fill.

Photos of Select Daily Activities



Comments: Backfilling activities in Block D Areas F and F1. DUSTRAKK air monitor in view.



Comments: Backfilling activities in Block D Areas F and F1.

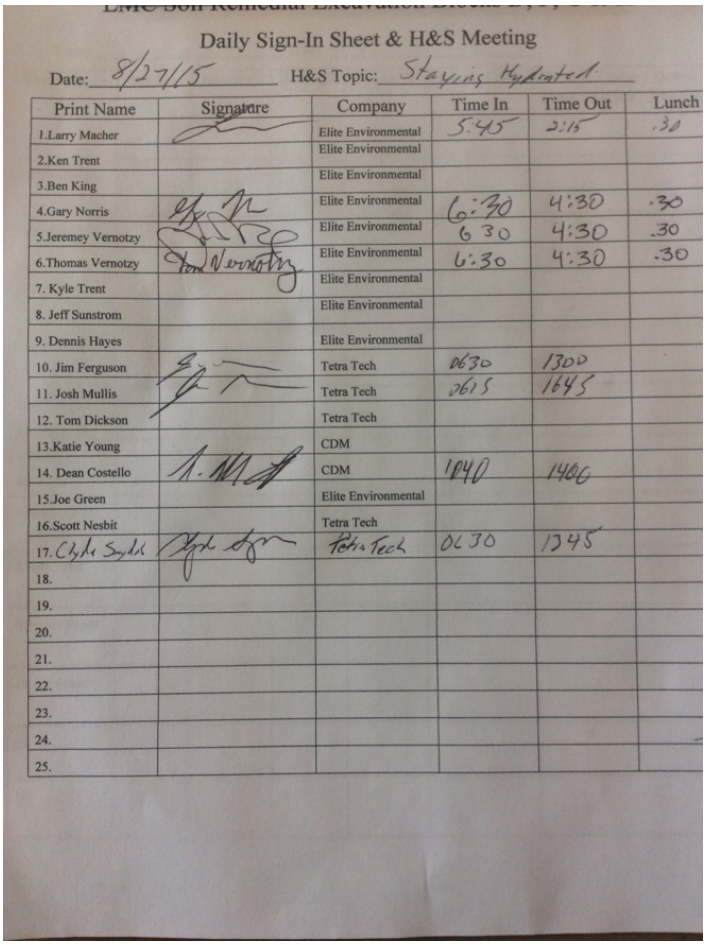
Photos of Select Daily Activities (continued)



Comments: Block D Area F and F1 backfilling activities with select fill.

Comments:

Safety Sign-In Sheet



Daily Sign-In Sheet & H&S Meeting

Date: 8/27/15 H&S Topic: Staying Hydrated

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:45	2:15	.30
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	4:30	.30
5.Jeremey Vernotzy		Elite Environmental	6 30	4:30	.30
6.Thomas Vernotzy		Elite Environmental	6:30	4:30	.30
7. Kyle Trent		Elite Environmental			
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	0630	1300	
11. Josh Mullis		Tetra Tech	0615	1645	
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	1040	1406	
15.Joe Green		Elite Environmental			
16.Scott Nesbit		Tetra Tech			
17. Clyde Snyder		Tetra Tech	0630	1345	
18.					
19.					
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21.					
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	August 31, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	Light Rain

Weather Comments: Overcast, light rain in morning, clearing in the afternoon.

Summary of Work/Major Activities

1. Setup DustTRAK air monitoring stations and meteorological station in Block D.
2. Agtrans supplied 32 trucks of select fill that was placed in Block D Areas D and F. Both areas were compacted following fill placement.
3. 675 tons of select fill was delivered to Block D for backfill purposes.
4. Break up concrete pads in the UST area to permit access to several areas for continued UST test pitting activity in Block G.
5. Removed tarp from 20 yard roll off container to recover housing of transformer located north of Block G Area J. Placed remnant into a drum until hexane wipes could be delivered to the site so wipe samples could be collected (13:00-14:00).
6. J. Brendell of Baltimore Conservation District was on site to perform an inspection of E&S controls in place on the Site.

Personnel On-Site

Name:	Company:
Jim Ferguson	Tetra Tech
Ivanna Goldsberry	Tetra Tech
Clyde Snyder	Tetra Tech
L. Macher	Elite Env.
K. Trent	Elite Env.
J. Vernotzy	Elite Env.
T. Vernotzy	Elite Env.
G. Norris	Elite Env.
F. Kolberg	Tetra Tech
D. Costello	CDM Smith
J. Brendell	Baltimore County
J. Green	Elite Env.
E. Ballaway	Hydrostructures
C. Sundet	Hydrostructures

Health & Safety Topics or Issues

1. Potential weather hazards today, keep alert for approaching thunder storms.
2. During backfilling operations, please monitor all heavy equipment traffic. Utilize spotters while backing in dump trucks bringing select fill into the site. Be alert when approaching an excavator, be aware of the swing radius of the equipment.
3. Utilize hearing protection while operating heavy equipment.

QC Procedures/Inspections/Testing to be Performed Today

Monitor placement and compaction of fill material in the excavations at Block D.
Setup and operate DustTRAK monitors.

Planned Week Schedule

1. Finish fill placement in Block D (ongoing)
2. Perform Block G UST Test Pitting, must remove concrete prior to moving forward (ongoing).
3. Perform real time ambient dust monitoring using DustTRAK system.
4. Place transformer remnants in over pack drum to await analytical results (ongoing).

Photos of Select Daily Activities



Comments: 1. Operator uses hoe ram to break concrete pad between Block G Area J and UST Area.



Comments: 2. Soil exposed in Block G exploratory UST dig area following removal of concrete pad.

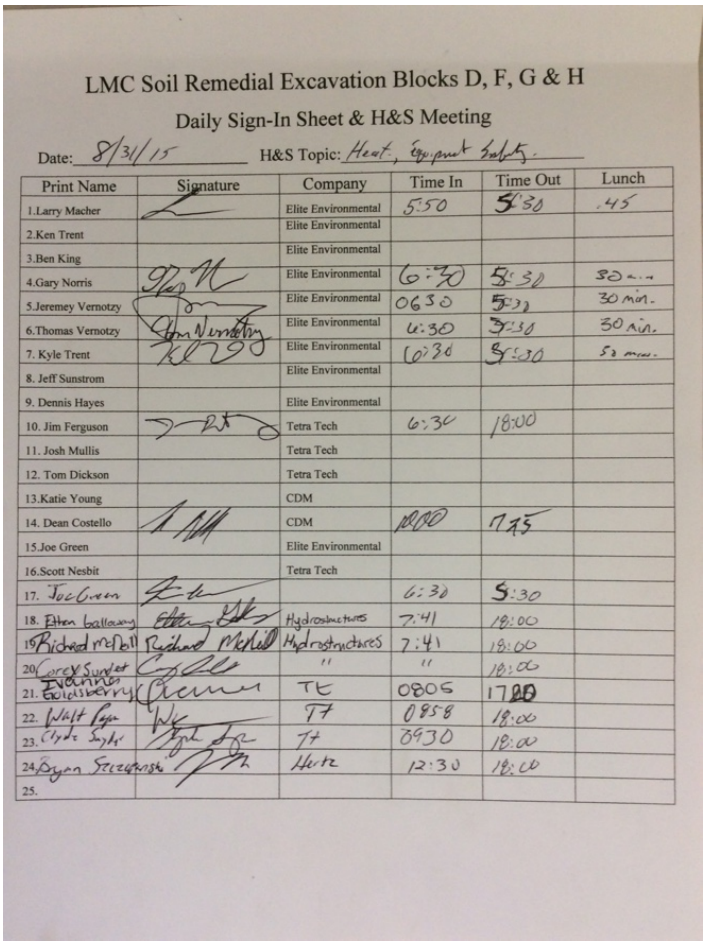
Photos of Select Daily Activities (continued)



Comments: Placement and compaction of fill material in Block D area F.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 8/31/15 H&S Topic: Heat, Equipment Safety.

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	5:30	.45
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	5:30	30 min.
5.Jeremey Vernotzy		Elite Environmental	0630	5:30	30 min.
6.Thomas Vernotzy		Elite Environmental	6:30	5:30	30 min.
7. Kyle Trent		Elite Environmental	0630	5:30	30 min.
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	18:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	1000	1715	
15.Joe Green		Elite Environmental			
16.Scott Nesbit		Tetra Tech			
17. Joe Green			6:30	5:30	
18. Ethan Gallaway		Hydrostructures	7:41	18:00	
19. Richard McKell		Hydrostructures	7:41	18:00	
20. Corey Sundet		"	"	18:00	
21. Dennis Ericksberry		TE	0805	1700	
22. Walt Pyan		TT	0858	18:00	
23. Clyde Snyder		TT	0930	18:00	
24. Ryan Szczerbinski		Hertz	12:30	18:00	
25.					

Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	September 1, 2016	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	80 to 90	Skies:	Few Clouds	Wind:	Light	Precipitation:	—

Weather Comments: Hot, humid.

Summary of Work/Major Activities

1. Complete backfill in Block D Areas F and D.
2. Set up DustTRAK air monitoring system.
3. Excavated two trenches (4' x 15' x 7.5') (9:35) between Block G excavation Area J and the north edge of the UST excavation Area (points G55 and G52). Excavated to a depth of 7.5' below ground surface into red brown, and tan-brown, silty, sandy (fine), clay. USTs were not located. Soils were I disturbed in both excavations. PID scanning of soil removed did not detect any volatile organic compounds in soil removed from the excavations.
4. Completed second UST Area Test pit. Excavated pit 7' X 85' X 7' south and west of wells 12a, 12b and 12c. Encountered a layer of heterogeneous fill material from the ground surface to 3', overlying a 1'-2' layer of fine, silty, sand (sm - 2')' overlying a layer of pea gravel (1'-2', gm).
5. Following removal of concrete pads and concrete foundation supports, began to dig test pit starting on south side (North American Lighting) of former structure (15:30). While starting to dig encountered a mixture of sandy silt (wet, mud) and brown, sludge like petroleum material directly beneath the location of a concrete slab. Collected a sample for analysis (G-WC-FTL-1). Removed a 3" Inside diameter steel pipe with petroleum sludge inside the pipe. Collected another sample (G-WC-FTL-2). Samples to be submitted to Test America for Analysis.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
C. Snyder	Tetra Tech
I. Goldsberry	Tetra Tech
L. Macher	Elite Env.
G. Norris	Elite Env.
J. Vernotzy	Elite Env.
T. Vernotzy	Elite Env.
K. Trent	Elite Env.
B. White	Hollis-Karnes
J. Green	Elite Env.
D. Costello	CDM Smith
B. Scezmanski	Hertz Equipment

Health & Safety Topics or Issues

1. Heat stress monitoring, hydration breaks should be frequent throughout the day.

QC Procedures/Inspections/Testing to be Performed Today

1. PID monitoring during excavation at Block G UST Area test pit locations. PID calibration by C. Snyder.
2. Monitor fill placement and compaction in Block F.
3. Collected two sludge like samples for analysis at the former Fuel Test Lab Location (G-WC-FTL-1 and G-WC-FTL-2).
4. Collected ambient air samples from personal air sampling devices workers were equipped with. Samples to be analyzed for PAHs and silica dust.

Planned Week Schedule

1. Complete backfill and compaction of Block D Areas D and F (8/31 - ongoing)).
2. Perform Ambient air monitoring during Block F backfilling activities (8/31 - ongoing).
3. Perform soil compaction testing in Block D Area F (Hillis-Karnes, completed 9/1).
4. Excavate test pits in Block G UST areas of concern (9/1 - ongoing).

Photos of Select Daily Activities



Comments:

1. Side by side excavations completed in between Excavation Area J and the initial UST Area identified in scoping documents. Both excavations completed to a depth of 7.5' below ground surface. Water western (right side of photo) test pit was due to water discharging from CR-6 backfill placed in Area J. Groundwater was not encountered in either excavation area.



Comments:

2. Fuel Test Lab building excavation, photo showing soil/mud/sludge located immediately beneath the location of a concrete slab. PID monitoring of material indicated organic vapors ranging from 31ppm to 67 ppm. Waste sample G-WC-TL-1 was collected for analysis.

Photos of Select Daily Activities (continued)

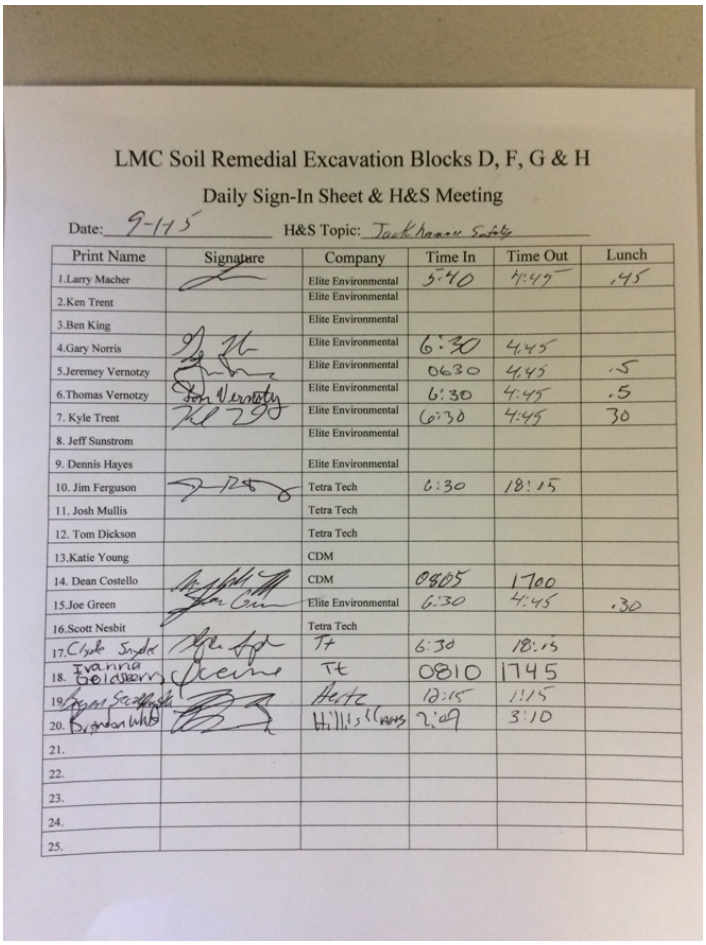


Comments: 3. G-WC-FTL-2 sample collected at Fuel Test Lab Area. Note sludge from steel pipe (PID ranged from 30-67 ppm).



Comments: 4. Compaction of soil at test pit located the vicinity of wells 12A, 12B and 12C in Block G UST area.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 9-11-15 H&S Topic: Tailgate Safety

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:40	4:47	.45
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	4:45	
5.Jeremey Vernotzy		Elite Environmental	0630	4:45	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	4:45	.5
7. Kyle Trent		Elite Environmental	6:30	4:45	30
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	18:15	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	0805	1700	
15.Joe Green		Elite Environmental	6:30	4:45	.30
16.Scott Nesbit		Tetra Tech			
17.Clyde Snyder		Tt	6:30	18:15	
18. Ivanna Goldberry		Tt	0810	1745	
19.		Hertz	12:15	1:15	
20.		Hillis Carnes	2:09	3:10	
21.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	September 15, 2015	Start Work at:	6:30 AM	Depart Site at:	5:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Few Clouds	Wind:	Light	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Begin excavation in Block G Transformer area in between Area H and the super silt fence to the northwest/west. First trench dug parallel to Area H (3' wide by approx 7.5' deep by 35' long). Metal scraps and misc fill items (brick, concrete, metal bucket) found from 2' to 5' bgs with the fill material grading downwards towards cow pen creek (see picture 1).
Two additional trenches dug parallel to the first (same dimensions), no items of interest uncovered. All three trenches were immediately backfilled and will be reseeded. The area of interest between excavation Areas J and I will be investigated 9/16.

2. Place hay and seeding mixture in Block G Area I, Block G Transformer Areas, Block D Areas F and F1, and Block F Area E to support revegetation of excavation areas. These areas will also be watered twice a day.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	Ky. Trent	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	D. Costello	Company:	CDM Smith
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Operator safety, stay out of the line of fire w/ swing of bucket, always use a spotter.
2. Use caution when working near slick surfaces due to rain, slips trips and falls.

QC Procedures/Inspections/Testing to be Performed Today

1. DUSTRAKK air monitors in place during excavation activities.
2. Subsurface metallic material located via magnetometer for Block G Transformer investigation.

Planned Week Schedule

1. Backfill Block G Area I (ongoing, topsoil backfilled 9/14).
2. Block G Transformer Area excavation, followed by re-seeding and curl-x placement (area northwest of Area H complete 9/14, area in-between Area H and the silt fence completed 9/15, Area between I and J to be completed 9/16).
3. Monitor growth conditions for re-seeded excavation areas in Block F, D, and G (ongoing).
4. Place hay and seeding mixture in Block G Area I, Block G Transformer Areas, Block D Areas F and F1, and Block F Area E to support revegetation of excavation areas (completed 9/15).

Photos of Select Daily Activities



Comments: 1. Block G Transformer area in between Area H and the silt fence. Fill material grades downwards towards cow pen creek (with the creek side slope) suggesting various layers of fill pushed downwards to cow pen creek.



Comments: 2. Block G Transformer Area excavation. Pictured above is the area of the first trench. Area H is shown to left of excavator and the silt fence runs behind the picture taker.

Photos of Select Daily Activities (continued)

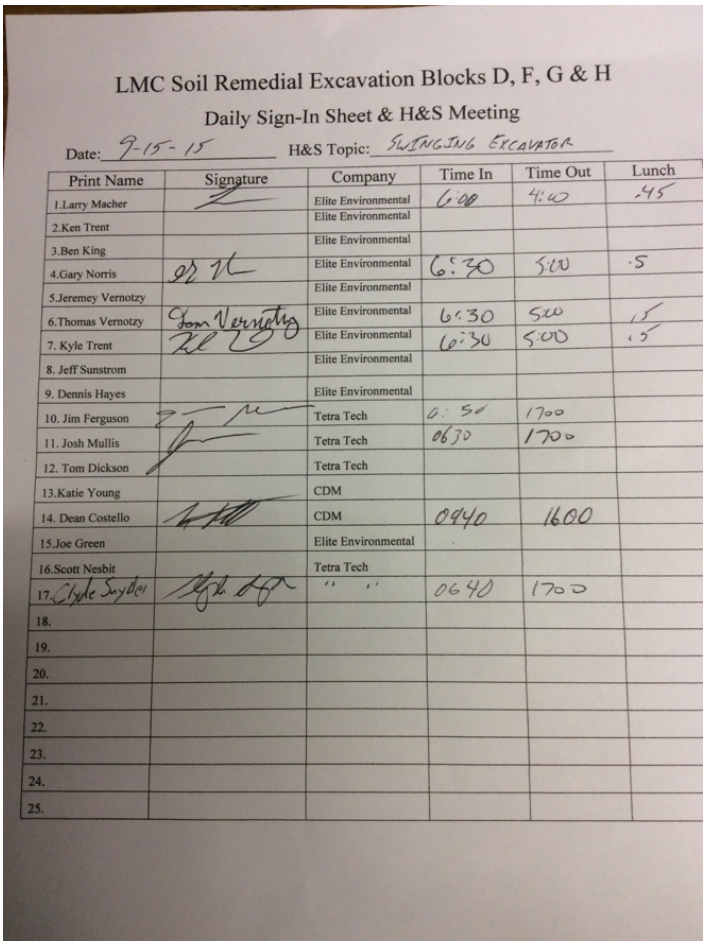


Comments: 3. Block G Transformer Inv. between Area H (to the right) and the silt fence (to the left). Trench 3' wide by 7.5' deep by 35' long. No items of concern found, only scrap metal, bricks, and wood found.



Comments: 4. Block G Transformer Area, contractor onsite spreading hay and seeding liquid mixture for regrowth.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 9-15-15 H&S Topic: SWINGING EXCAVATOR

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:00	4:40	.45
2.Ken Trent		Elite Environmental			
3.Ben King		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	5:00	.5
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	5:00	.5
7. Kyle Trent		Elite Environmental	6:30	5:00	.5
8. Jeff Sunstrom		Elite Environmental			
9. Dennis Hayes		Elite Environmental			
10. Jim Ferguson		Tetra Tech	0650	1700	
11. Josh Mullis		Tetra Tech	0630	1700	
12. Tom Dickson		Tetra Tech			
13.Katie Young		CDM			
14. Dean Costello		CDM	0940	1600	
15.Joe Green		Elite Environmental			
16.Scott Nesbit		Tetra Tech			
17. Clyde Snyder		" "	0640	1700	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	September 23, 2015	Start Work at:	6:30 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Clear	Wind:	Moderate	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Finish excavating in Block D Panhandle Area A, complete excavation of Area B to 2' bgs. Orange fencing placed around the open excavations.

2. Load out trucks with Block D Panhandle excavated soil; 14 trucks loaded from Area A and 4 trucks loaded from Area B and sent to the disposal facility.

3. Conduct verification sidewall and base sampling in Block D Panhandle Areas A, A1, and B for PAH, arsenic, and hex chrom.

4. Water excavation areas in Blocks G, D, and F to promote vegetation growth.

5. Turbidity curtain for upcoming storm drain repair work in Block D Panhandle delivered to the site.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	Ky. Trent	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Environmental
Name:	M. Martin	Company:	Tetra Tech
Name:	F. Kolberg	Company:	Tetra Tech
Name:	B. Steinhart	Company:	Enviroscan
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

Activity: Truck loading – D-Panhandle Areas A and A1 (4-feet deep)
Safety concerns:
· Truck driver safety – Keep them out of the active zones; PPE requirements will be relaxed in those locations; Active zones, they look like us or do not get out of the truck.
· Do NOT place yourself between trucks; trucks and equipment; trucks and immovable objects
· Climbing trucks – Slip, trip, and fall - Maintain 3-points of contact; Do not remain on top of the truck
· Excavation depth – 4-feet in depth - need ladders or structured entrances/egress. Check with SSHO before entry

QC Procedures/Inspections/Testing to be Performed Today

1. Air monitors and MultiRae PID utilized during excavation activities in Block D Panhandle.
2. Verification sidewall and base sampling in Block D Panhandle Areas A, A1, and B conducted; will be analyzed for PAH, arsenic, and hex chrom.

Planned Week Schedule

1. Backfill Block G Transformer Areas w/ topsoil (ongoing).
2. Monitor growth conditions for re-seeded excavation areas in Block F, D, and G (ongoing).
3. Load out stockpiled soil from the Block G Area I excavation to the landfill in Little Plymouth, VA (1 truck loaded and load out complete 9/21).
4. Decontaminate excavator bucket and mob to Block D Panhandle for work starting 9/22 (complete 9/21).
5. Excavate in Block D Panhandle (complete Area A1 9/22, complete Areas A and B 9/23).
6. Conduct verification sidewall and base sampling in Block D Panhandle excavations (Areas A, A1, and B complete 9/23).
7. Load out Block D Panhandle soil (14 trucks from Area A and 4 trucks from Area B on 9/23).
8. Place jersey barriers in Block D and D Panhandle for future use as anchors for the turbidity curtain (anchors in place 9/22, turbidity curtain delivered 9/23).

Photos of Select Daily Activities



Comments: 1. Block D Panhandle Area A excavation and truck loading activities. Photo facing west to northwest.



Comments: 2. Block D Panhandle Areas A and A1 excavation completed, orange fencing surrounds open excavation. Photo facing north to northwest.

Photos of Select Daily Activities (continued)

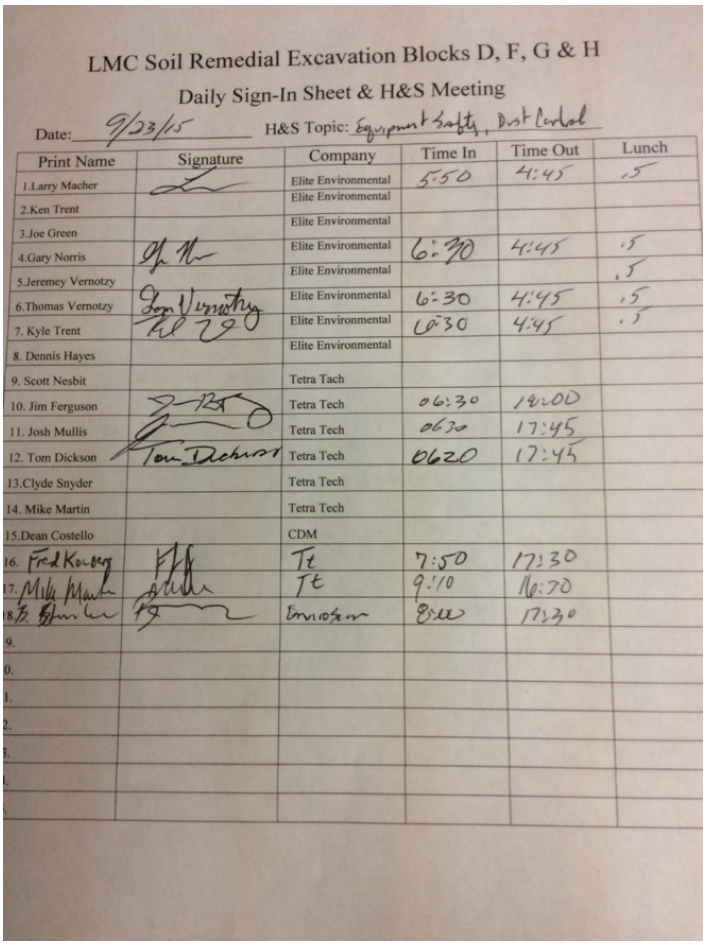


Comments: 3. Block D Panhandle Area B excavation and truck loading activities, photo facing west.



Comments: 4. Block D Panhandle Area B excavation completed, orange fencing put in place around open excavation. Photo facing south to southwest.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 9/23/15 H&S Topic: Equipment Safety, Dust Control

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	4:45	.5
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	4:45	.5
5.Jeremey Vernotzy		Elite Environmental			.5
6.Thomas Vernotzy		Elite Environmental	6:30	4:45	.5
7. Kyle Trent		Elite Environmental	6:30	4:45	.5
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech	06:30	18:00	
11. Josh Mullis		Tetra Tech	0630	17:45	
12. Tom Dickson		Tetra Tech	0620	17:45	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM			
16. Fred Koorey		Tt	7:50	17:30	
17. Mike Martin		Tt	9:10	16:30	
18.		Environ	8:00	17:30	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	September 29, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Mostly Cloudy	Wind:	Light	Precipitation:	—

Weather Comments: Overcast and humid.

Summary of Work/Major Activities

1. Complete backfill and compaction of Block D Panhandle Area A.
2. Begin asphalt removal in Block D Panhandle.
3. Troxler density testing in Block D Areas A and B.
4. Tie back repair in Block D Area F.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
W. Pryor	Tetra Tech
F. Kolberg	Tetra Tech
L. Macher	Elite Env.
G. Norris	Elite Env.
K. Trent	Elite Env.
J. Vernotzy	Elite Env.
T. Vernotzy	Elite Env.
M. Martin	Tetra Tech
J. Leonard	Hillis Karnes
Aileen Craig	CDM Smith
D. Costello	CDM Smith

Health & Safety Topics or Issues

1. Discussed equipment operation and safety related to the stripping of asphalt in Block D Panhandle. Requested that staff be alert and be aware of backup alarms on the equipment.

QC Procedures/Inspections/Testing to be Performed Today

1. Trioxler density testing in Block D Panhandle Areas A and B.
2. Monitoring removal of asphalt in Block D

Planned Week Schedule

1. Backfill and compact Block D Panhandle Areas A and B (9/28-29).
2. Strip asphalt from Block D Panhandle (9/29).
3. Test pits for Block D Panhandle storm water conveyance repairs.
4. Complete Block D Area F-1 tie back repair (9/29, ongoing).
5. Remove rubble and storm water conveyance structure behind bulkhead in Block D Panhandle.
6. Install turbidity curtain in Block D Panhandle (9/28).
7. Complete density testing in Block D Panhandle Areas A and B (9/29).
8. Baltimore County erosion control and sedimentation control inspection.

Photos of Select Daily Activities



Comments: 1. Irrigation of reseeded areas at Block D.



Comments: 2. Piling and tie back repair in Block D Area F-1. Poured 1.5 cubic yards of 3500 psi concrete.

Photos of Select Daily Activities (continued)

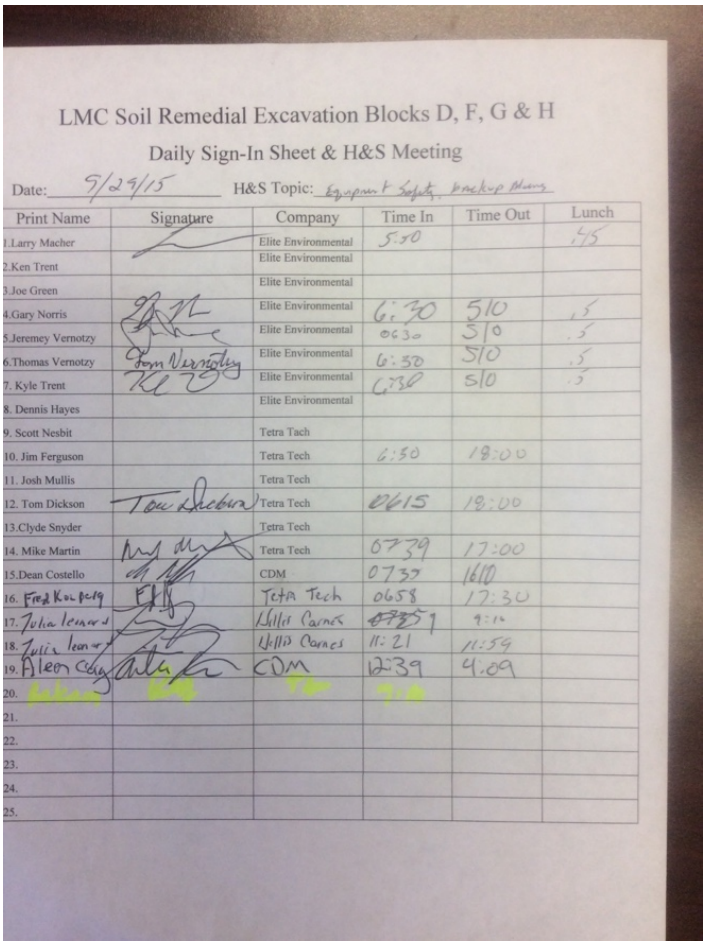


Comments: 3. Compaction/ density testing at Block D Panhandle Area A.



Comments: 4. Stripping asphalt from Block D Panhandle Area.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 5/29/15 H&S Topic: Equipment Safety, Backup Alarms

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50		.45
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	5:10	.5
5.Jeremey Vernotzy		Elite Environmental	0630	5:10	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	5:10	.5
7. Kyle Trent		Elite Environmental	6:30	5:10	.5
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech	6:50	18:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0615	18:00	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech	0739	17:00	
15.Dean Costello		CDM	0737	1610	
16. Fred Kolberg		Tetra Tech	0658	17:30	
17. Julia Leonard		Willis Carnes	~~0735~~ 9	9:14	
18. Julia Leonard		Willis Carnes	11:21	11:54	
19. Alron Clay		CDM	12:39	4:09	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 5, 2015	Start Work at:	6:45 PM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Few Clouds	Wind:	Light	Precipitation:	None

Weather Comments: Sunny, cool, light wind out of northeast.

Summary of Work/Major Activities

1. Stage asphalt remnants in Block D Panhandle at north end of the area to facilitate placement of topsoil.
2. Site walk and inspection of Blocks D, D Panhandle, F and G to determine impacts of weather from 10/2 through today.
3. Readjust turbidity curtain in Block D Panhandle.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	F. Kolberg	Company:	Tetra Tech
Name:	W. Pryor	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	J. Vernotzy	Company:	Elite Env.
Name:	G. Norris	Company:	Elite Env.
Name:	L. Macher	Company:	Elite Env.
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
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Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed equipment operational hazards associated with movement of the asphalt in Block D Panhandle.
2. Reviewed procedures for securing equipment and work areas prior to departure from site.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitored skid-steer equipment operation in proximity to additional earth moving equipment in the Block D Panhandle area.

Planned Week Schedule

1. Stage asphalt / asphaltic sub-base material for removal in Block D Panhandle (10/5, ongoing).
2. Complete Block D Area F-1 tie back repair by filling remaining excavation with select fill (ongoing).
3. Place top soil in Block D Panhandle area (to be completed 10/7-10/8).
4. Complete an additional test pit in Block G between the transformer area, Area H and I (cross roads area, to be completed 10/6).
5. Test pit and removal of debris near the storm water conveyance structure in Block D/D Panhandle (to be completed 10/7-10/8).
6. Survey proposed drainage channel below stormwater outfall in Block G, between UST Area and Area J (to be completed 10/7).

Photos of Select Daily Activities



Comments: 1. Block G Area I slope following 10/2 weekend storm, minor erosion of hay used for initial stabilization of slope.



Comments: 2. Some minor slippage of Curlex stabilization matting at top of Block G Area I slope.

Photos of Select Daily Activities (continued)

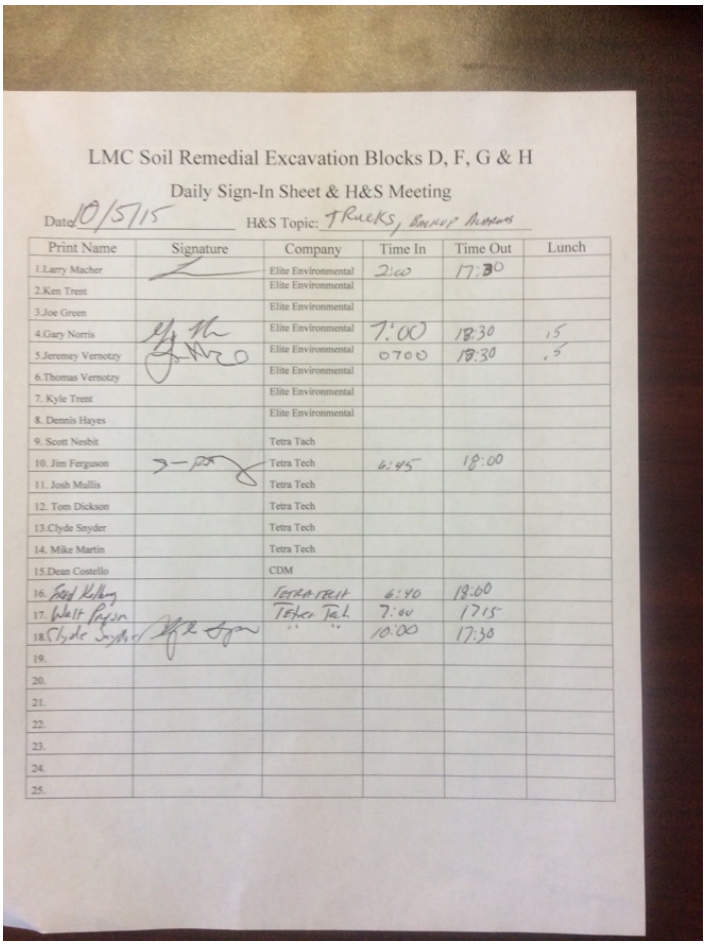


Comments: 3. Overland flow of storm water in Block G UST Area.



Comments: 4. Select fill which was displaced past the super silt fence in Block D Panhandle Area B.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date 10/5/15 H&S Topic: TRUCKS, BACKUP ALARMS

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	2:00	17:30	
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental	7:00	18:30	.5
5.Jeremey Vernotzy		Elite Environmental	0700	18:30	.5
6.Thomas Vernotzy		Elite Environmental			
7. Kyle Trent		Elite Environmental			
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech	6:45	18:00	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM			
16. Fred Kelley		TETRA TECH	6:40	18:00	
17. Walt Pegan		Tetra Tech	7:00	17:15	
18. Clyde Snyder		" "	10:00	17:30	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 7, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Mostly Cloudy	Wind:	Light	Precipitation:	—

Weather Comments: Slight wind out of the northwest.

Summary of Work/Major Activities

1. Begin placing and spreading top soil in Block D Panhandle (34 loads delivered by Benjer Inc.).
2. Excavate fill material in Block D storm water conveyance structure area. Remove large boulders and old drop inlet.
3. Survey test pit locations in Block G. Survey Storm water outfall in Block G. Survey grade in Block D Panhandle Area. Survey invert of 36" CMP connected to junction vault up-gradient of storm water repair area in Block D.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
C. Snyder	Tetra Tech
M. Martin	Tetra Tech
S. Nesbit	Tetra Tech
W. Pryor	Tetra Tech
L. Macher	Elite Env.
J. Vernotzy / Ky. Trent	Elite Env.
G. Norris	Elite Env.
K. Young	CDM Smith
A. Craig	CDM Smith
Ben W.	CDM Smith
V / Vi. Burke	AV Burke LLC
J. Brendel	Baltimore County
Bryan S.	Hertz

Health & Safety Topics or Issues

1. Excavation safety and worker / operator hand signals.
2. Environmental monitoring related to excavation of soil and storm water handling.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor test pit excavation around Block D / D Panhandle storm water conveyance structure.
2. Meet with Scott Lapp (EMCOR) to declassify storm water vault and to get a Confined Space Permit to facilitate measurement of discharge pipe diameter.
3. Survey work areas in Blocks G, D and D Panhandle (see daily activities for detail).

Planned Week Schedule

1. Stage asphalt / asphaltic sub-base material for removal in Block D Panhandle (10/5-6).
2. Complete Block D Area F-1 tie back repair by filling remaining excavation with select fill (10/6 ongoing).
3. Place top soil in Block D Panhandle Area (10/7 ongoing).
4. Completed two test pits in Block G (BG-TP-CR-1, BG-TP-CR-2) between the transformer area and Areas H and I (cross roads area) (10/6).
5. Test pit and removal of debris near the storm water conveyance structure in Block D / D Panhandle (10/7).
6. Survey Block G storm water discharge (profile) between UST and Transformer Areas, Block G test Pits and transformer area grid. Locate limits of fuel test lab excavation areas (10/7)

Photos of Select Daily Activities



Comments: 1. Test pit excavation to locate 36" CMP in Block D / D Panhandle, CMP located approx. 4.8' bgs.



Comments: 2. Block D / D Panhandle, excavator utilized to remove rubble from behind bulkhead in storm water catch basin repair area.

Photos of Select Daily Activities (continued)

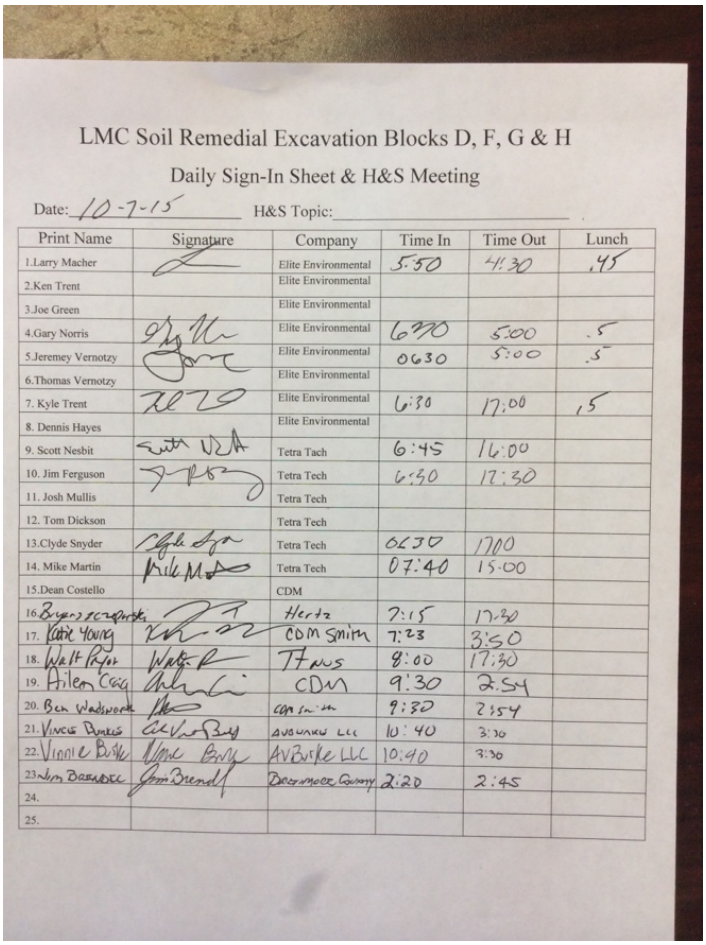


Comments: 3. During excavation, encountered a creosoted piling, Block D / D Panhandle storm water conveyance structure area.



Comments: 4. Remove old catch basin in Block D.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-7-15 H&S Topic: _____

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	4:30	.45
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	5:00	.5
5.Jeremey Vernotzy		Elite Environmental	0630	5:00	.5
6.Thomas Vernotzy		Elite Environmental			
7. Kyle Trent		Elite Environmental	6:30	17:00	.5
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach	6:45	16:00	
10. Jim Ferguson		Tetra Tech	6:30	17:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech	0630	1700	
14. Mike Martin		Tetra Tech	07:40	15:00	
15.Dean Costello		CDM			
16.		Hertz	7:15	17:30	
17. Katie Young		CDM Smith	7:23	3:50	
18. Walt Paton		TTNUS	8:00	17:30	
19. Aileen Craig		CDM	9:30	2:54	
20. Ben Wadsworth		CDM Smith	9:30	2:54	
21. Vince Burke		AVBURKE LLC	10:40	3:30	
22. Vinnie Burke		AVBurke LLC	10:40	3:30	
23.		Dearborn County	2:20	2:45	
24.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 8, 2015	Start Work at:	6:30 AM	Depart Site at:	6:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Partly Cloudy	Wind:	—	Precipitation:	—

Weather Comments:

Summary of Work/Major Activities

1. Install 36" ID (inside diameter) plug on down-gradient side of storm water junction vault in Block D. Prior to installation obtained confined space permit from Scott Lapp (EMCOR/LMC).
2. Continue to receive top soil for placement at Block D Panhandle Area.
3. Removed large boulders from behind bulkhead which were placed on top of 2 short pieces of creosoted piles. Pilings were removed, hydrophobic booms were installed and the pilings were staged for removal from the Site.
4. Installed marine plywood over 36" discharge point at bulkhead at Dark Head Cove.
5. Collected oil impacted soil/sediment sample from down gradient discharge point of 36" storm water discharge pipe.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	C. Snyder	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	G. Norris	Company:	Elite Env.
Name:	K. Trent	Company:	Elite Env.
Name:	D. Costello	Company:	CDM Smith
Name:		Company:	
Name:		Company:	
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Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Water safety discussion.
2. Confined space entry and monitoring.

QC Procedures/Inspections/Testing to be Performed Today

1. Confined space pre-entry, entry and post entry monitoring.
2. Collected soil/sediment sample down gradient of the 36" corrugated steel discharge pipe.
3. Ambient air monitoring during test excavation.

Planned Week Schedule

1. Stage / asphaltic sub-base material for removal Block D Panhandle (10/5-6).
2. Complete Block D Area F-1 tie back repair by filling remaining excavation with select fill (10/8, ongoing).
3. Place top soil, grade and hydro-seed Block D Panhandle (10/7-8 ongoing).
4. Completed two test pits in Block G (BG-TP-CR-1 and BG-TP-CR-2) between the transformer Area and Areas H/I (Cross roads Area, 10/6).
5. Test pit and removal of debris near the storm water conveyance structure in Block D / D Panhandle (10/7, ongoing).
6. Survey Block G storm water discharge (profile) between UST and Transformer Areas, Block G test pits and transformer area grid. Located the limits of the fuel lab excavation areas (10/7).

Photos of Select Daily Activities



Comments: 1. Pneumatic plug (36"-diameter) plug installed in discharge pipe of storm water junction vault located upgradient of bulkhead in Block D / D Panhandle.



Comments: 2. Performance of pre-entry confined space ambient air monitoring, prior to plug installation.

Photos of Select Daily Activities (continued)

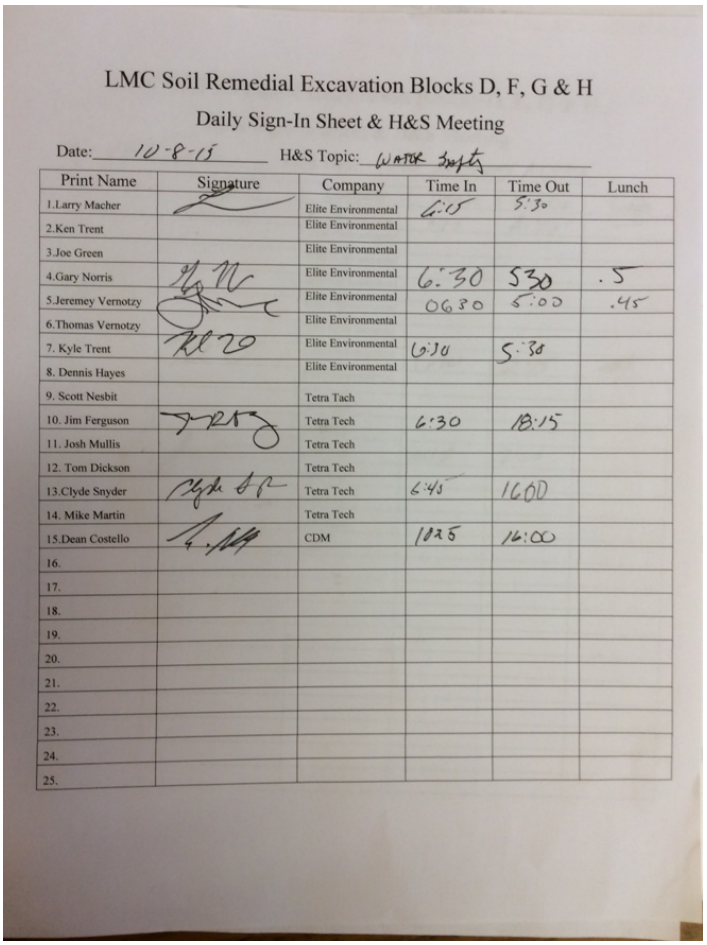


Comments: 3. Oil impacted sediment and debris removed from behind bulkhead down gradient of the 36" storm water discharge.



Comments: 4. Block D Panhandle area following placement of an additional 27 loads of top soil.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-8-15 H&S Topic: WATER Safety

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:15	5:30	
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental	6:30	530	.5
5.Jeremey Vernotzy		Elite Environmental	0630	5:00	.45
6.Thomas Vernotzy		Elite Environmental			
7. Kyle Trent		Elite Environmental	6:30	5:30	
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech	6:30	18:15	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech	6:45	1600	
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM	1025	16:00	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 9, 2015	Start Work at:	6:30 AM	Depart Site at:	3:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Overcast	Wind:	Moderate	Precipitation:	Light Rain

Weather Comments: Light rain in AM

Summary of Work/Major Activities

1. Delivery of one roll-off by Clean Harbors to Block D Panhandle for potentially contaminated soil excavated in the 36" CMP repair area. A second roll-off will be delivered on Monday Oct. 12.
2. Contractors on site to spread hay and seeding mixture in Block D Panhandle top soil area and Block D Area F1 tieback area.

Personnel On-Site

Name:	Company:
J. Mullis	Tetra Tech
L. Macher	Elite Environmental
Ky. Trent	Elite Environmental

Health & Safety Topics or Issues

1. Excavation safety and worker / operator hand signals.
2. Environmental monitoring related to excavation of soil and storm water handling.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor seeding activities in Block D Panhandle and Block D Area F-1 tieback area.

Planned Week Schedule

1. Stage asphalt / asphaltic sub-base material for removal in Block D Panhandle (completed 10/5-6).
2. Complete Block D Area F-1 tie back repair by filling remaining excavation with select fill (completed 10/6).
3. Place top soil in Block D Panhandle Area (completed 10/7).
4. Completed two test pits in Block G (BG-TP-CR-1, BG-TP-CR-2) between the transformer area and Areas H and I (cross roads area) (completed 10/6).
5. Test pit and removal of debris near the storm water conveyance structure in Block D / D Panhandle (begin 10/7, ongoing).
6. Survey Block G storm water discharge (profile) between UST and Transformer Areas, Block G test Pits and transformer area grid. Locate limits of fuel test lab excavation areas (completed 10/7).
7. Delivery of 1 roll-off to Block D Panhandle (completed 10/9, second to be delivered 10/12).
8. Seeding and hay placed in Block D Panhandle and Block D Area F-1 tie back area (completed 10/9).

Tentative schedule week of 10/12
1. Continue to work on the Block D Panhandle conveyance structure (to be completed tentatively by 10/15).
2. Break up concrete and possible soil load out in Block G Fuel Test Lab Area (to be completed by 10/15).
3. Continue to monitor re-vegetation status of all excavation areas restored (ongoing).

Photos of Select Daily Activities

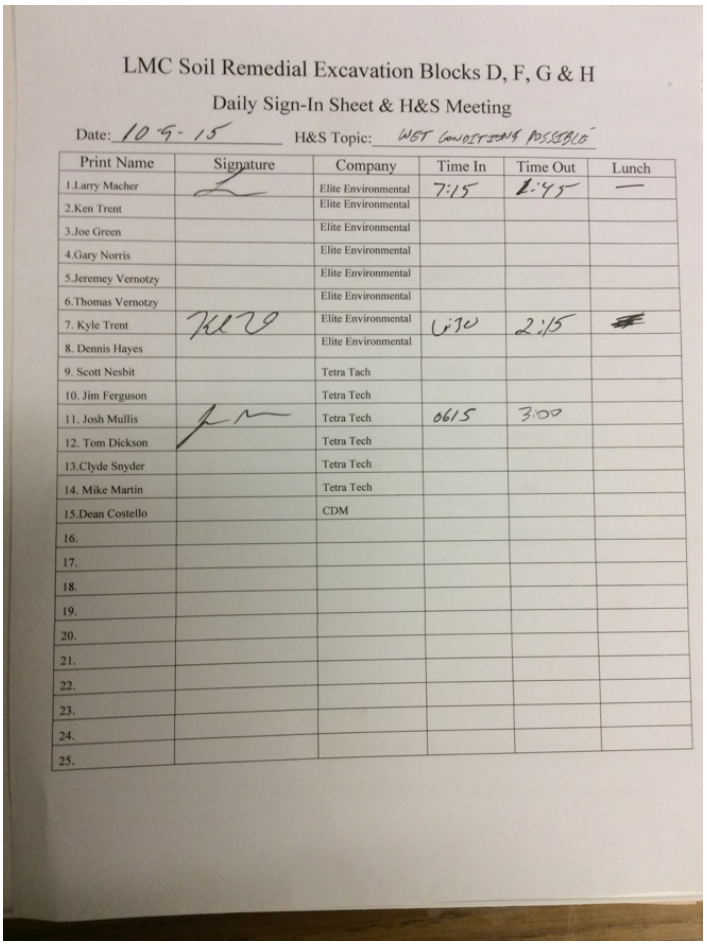


Comments: 1. Roll-off delivered by Clean Harbors for excavated soil from 36" CMP digging in Block D Panhandle.



Comments: 2. Contractor spreading hay in the Block D Panhandle top soil area.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-9-15 H&S Topic: WET CONDITIONS POSSIBLE

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	7:15	2:45	—
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental			
7. Kyle Trent		Elite Environmental	6:30	2:15	—
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech			
11. Josh Mullis		Tetra Tech	0615	3:00	
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM			
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 12, 2015	Start Work at:	6:30 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	60 to 70	Skies:	Few Clouds	Wind:	Light	Precipitation:	None

Weather Comments:

Summary of Work/Major Activities

1. Use excavator to place stockpiled soil generated from Block D conveyance structure digging into roll-off in Block D.
2. Clean Harbors delivered second roll-off for excavated soils related to the Block D conveyance structure activities.
3. Trench box delivered for use during the Block D conveyance structure repairs.
4. Place additional hydrophobic booms in between excavation and the bulkhead to hinder any possible oily contamination from reaching Dark Head Cove.
5. T. Blackman and L. Drake of Lockheed Martin on site to assess plan for continuing Block D conveyance structure repair work.
6. Install temporary chain link fencing around the Block F UST Area in preparation for tank pull activities.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
J. Mullis	Tetra Tech
L. Macher	Elite Environmental
G. Norris	Elite Environmental
Ky. Trent	Elite Environmental
J. Vernotzy	Elite Environmental
T. Blackman	LMC
L. Drake	LMC

Health & Safety Topics or Issues

1. Use the right tool for the job; save some energy and increase safety while working.
2. Excavation activities planned; always use a spotter, maintain eye contact with operator if you need to move into excavation zones.
3. Watch where you step; uneven terrain and rubble can cause slips, trips, and falls, always keep your head up and be attentive to your surroundings.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor excavation activities during the Block D conveyance structure work.
2. Place additional hydrophobic booms in Block D conveyance structure area.

Planned Week Schedule

1. Clean Harbors deliver second rolloff for Block D conveyance structure work (completed 10/12).
2. Place stockpiled soil from Block D conveyance structure work into roll offs (completed 10/12, work is ongoing)
3. Continue Block D conveyance structure investigation (ongoing).
4. Install temporary chain link fencing around the Block F UST Area in preparation for tank pull activities (fence installed 10/12).

Tentative schedule week of 10/12
1. Continue to work on the Block D Panhandle conveyance structure (ongoing).
2. Break up concrete and possible soil load out in Block G Fuel Test Lab Area (to be completed by 10/15).
3. Continue to monitor re-vegetation status of all excavation areas restored (ongoing).

Photos of Select Daily Activities



Comments: 1. Excavator used to place stockpiled soil from the Block D conveyance structure excavation into a roll-off in Block D.



Comments: 2. Clean Harbors delivery of the second roll-off for the Block D conveyance structure excavation.

Photos of Select Daily Activities (continued)

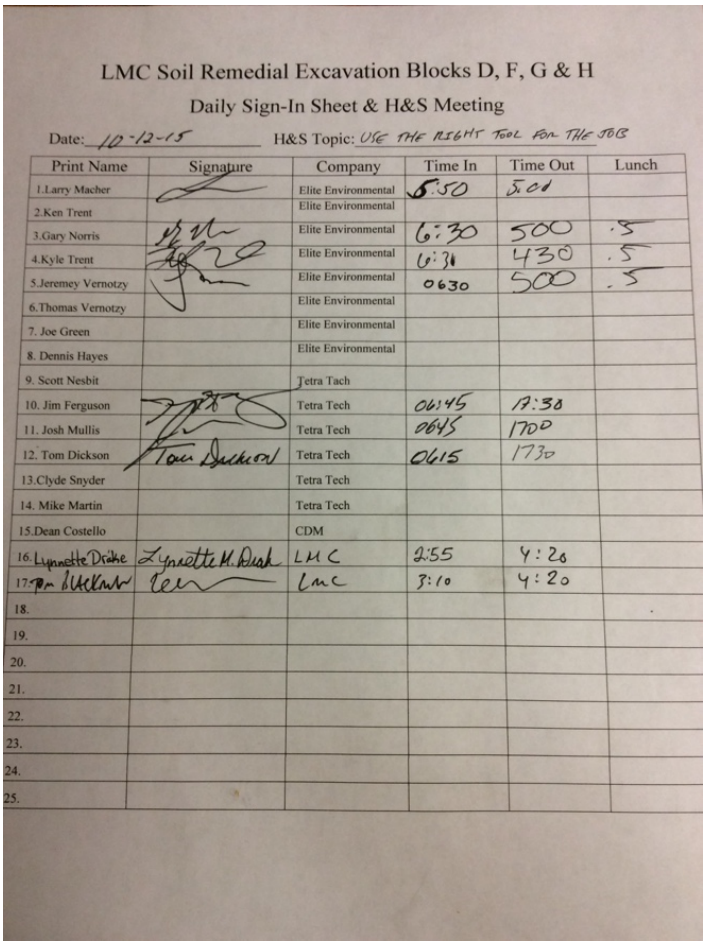


Comments: 3. Block D conveyance structure area, additional hydrophobic booms placed in-between bulkhead and excavation.



Comments: 4. Block D conveyance structure area, orange safety fencing in place around open excavation.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-12-15 H&S Topic: USE THE RIGHT TOOL FOR THE JOB

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	5:01	
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	500	.5
4.Kyle Trent		Elite Environmental	6:31	430	.5
5.Jeremey Vernotzy		Elite Environmental	0630	500	.5
6.Thomas Vernotzy		Elite Environmental			
7. Joe Green		Elite Environmental			
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech	0645	17:30	
11. Josh Mullis		Tetra Tech	0645	1700	
12. Tom Dickson	Tom Dickson	Tetra Tech	0615	1730	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM			
16. Lynnette Drake	Lynnette M. Drake	LMC	2:55	4:20	
17. Tom Blackwell		LMC	3:10	4:20	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 13, 2015	Start Work at:	6:30 AM	Depart Site at:	6:10 PM

Weather Conditions

Temperature (°F):	60 to 70	Skies:	Few Clouds	Wind:	Light	Precipitation:	Other (explain)

Weather Comments: Light rain from 0930-1030, clear and sunny rest of day.

Summary of Work/Major Activities

1. Hertz equipment delivered one excavator with a hammer attachment for use in Block G to break up concrete slab in the Fuel Test Lab Area (FTL). Hertz also moved the excavator in Block D to Block G for use during the FTL excavation.
2. Complete a confined space entry (and acquire a confined space permit from LMC) into the junction box in Block D to assess air pressure loss of the installed plug. Plug pulled, 1" puncture on back end of plug releasing air pressure found. Discontinue plug use until repaired and/or a different plan is established. The downstream end (towards Dark Head Cove) of the 36" CMP is currently plugged with soil.
3. Break up the concrete slab in Block G FTL area with excavator in preparation for excavation activities on 10/14.
4. Inspect hydrophobic booms in Block D conveyance area twice daily to insure the booms are working properly and effectively.
5. No. 2 stone delivered to Block D for future use in the Block D conveyance structure area.

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
J. Mullis	Tetra Tech
L. Macher	Elite Environmental
G. Norris	Elite Environmental
J. Vernotzy	Elite Environmental
Ky. Trent	Elite Environmental
A. Craig	CDM Smith
R. Opem	CDM Smith

Health & Safety Topics or Issues

1. Confined space entry:
-Review roles and responsibilities (Entry Supervisor; Authorized Entrant; Authorized Attendant
-All equipment used was inspected and approved for use (tripod; harness; hoist)
-Tetra Tech personnel will support atmospheric monitoring using the Multi-Rae Plus
-Once acceptable entry conditions were established LMC issued Confined Space Entry Permit

2. Use of excavator hammer to break up concrete; wear ear protection, stay in enclosed cab, stay away from area to eliminate the hazard of flying debris.

3. Possible rain in mid-morning, be prepared to button up activities in a safe and efficient manner.

QC Procedures/Inspections/Testing to be Performed Today

1. Acquire confined space permit from LMC, followed by confined space entry into Block D junction box to assess plug air pressure loss, monitor with MultiRae PID.
2. Inspect hydrophobic booms in Block D conveyance structure area twice daily.

Planned Week Schedule

1. Clean Harbors deliver second rolloff for Block D conveyance structure work (completed 10/12).
2. Place stockpiled soil from Block D conveyance structure work into roll offs (completed 10/12, work is ongoing)
3. Block D conveyance structure investigation on hold to re-assess approach due to incoming water from Dark Head Cove
4. Install temporary chain link fencing around the Block F UST Area in preparation for tank pull activities (fence installed 10/12).
5. Inspect hydrophobic booms in Block D conveyance structure area (completed twice daily beginning 10/13).
6. Break up concrete slab in Block G FTL area with excavator (completed 10/13).

Photos of Select Daily Activities



Comments: 1. Block D junction box confined space entry. Elite personnel assessing possible damage to the inflatable plug located in the downgradient 36" storm drain.



Comments: 2. Excavator with hammer attachment utilized to break up concrete slab in the Block G Fuel Test Lab Area.

Photos of Select Daily Activities (continued)

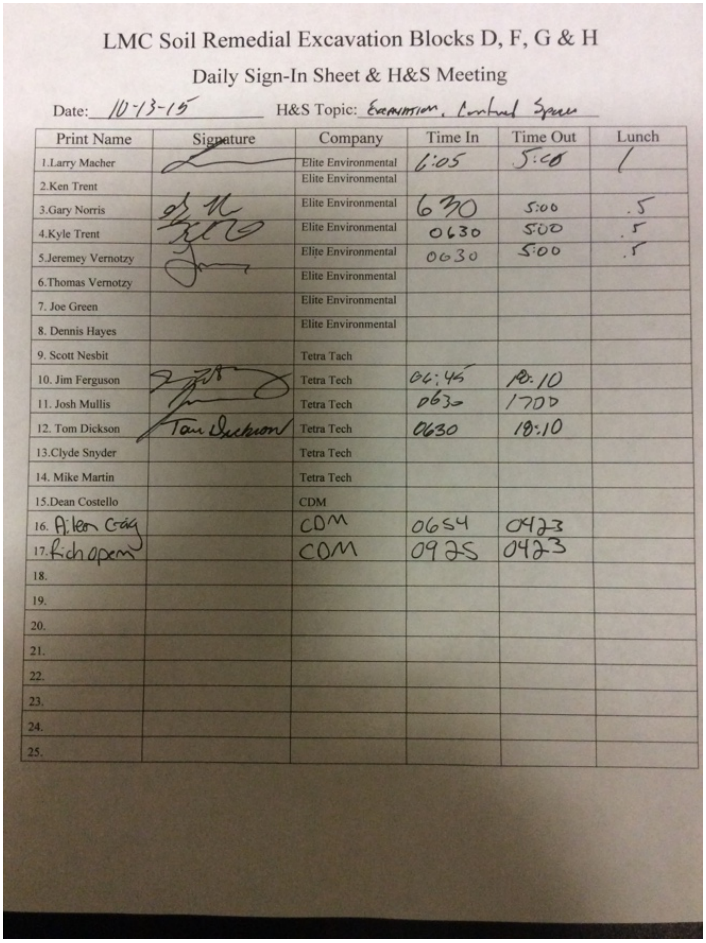


Comments: 3. Temporary 6' chain link fencing installed around the Block F UST Area in preparation for future tank pull activities. (Installed 10/12)



Comments: 4. No. 2 stone delivered to Block D for future use in the Block D conveyance structure repair.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-13-15 H&S Topic: Excavation, Confined Space

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:05	5:00	1
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	630	5:00	.5
4.Kyle Trent		Elite Environmental	0630	5:00	.5
5.Jeremey Vernotzy		Elite Environmental	0630	5:00	.5
6.Thomas Vernotzy		Elite Environmental			
7. Joe Green		Elite Environmental			
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech	06:45	18:10	
11. Josh Mullis		Tetra Tech	0630	1700	
12. Tom Dickson	Tom Dickson	Tetra Tech	0630	18:10	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM			
16. Allen Craig		CDM	0654	0423	
17. Rich Openi		CDM	0925	0423	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	October 9, 2015	Start Work at:	6:30 AM	Depart Site at:	3:00 PM

Weather Conditions

Temperature (°F):	70 to 80	Skies:	Overcast	Wind:	Moderate	Precipitation:	Light Rain

Weather Comments: Light rain in AM

Summary of Work/Major Activities

1. Delivery of one roll-off by Clean Harbors to Block D Panhandle for potentially contaminated soil excavated in the 36" CMP repair area. A second roll-off will be delivered on Monday Oct. 12.
2. Contractors on site to spread hay and seeding mixture in Block D Panhandle top soil area and Block D Area F1 tieback area.

Personnel On-Site

Name:	Company:
J. Mullis	Tetra Tech
L. Macher	Elite Environmental
Ky. Trent	Elite Environmental

Health & Safety Topics or Issues

1. Excavation safety and worker / operator hand signals.
2. Environmental monitoring related to excavation of soil and storm water handling.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor seeding activities in Block D Panhandle and Block D Area F-1 tieback area.

Planned Week Schedule

1. Stage asphalt / asphaltic sub-base material for removal in Block D Panhandle (completed 10/5-6).
2. Complete Block D Area F-1 tie back repair by filling remaining excavation with select fill (completed 10/6).
3. Place top soil in Block D Panhandle Area (completed 10/7).
4. Completed two test pits in Block G (BG-TP-CR-1, BG-TP-CR-2) between the transformer area and Areas H and I (cross roads area) (completed 10/6).
5. Test pit and removal of debris near the storm water conveyance structure in Block D / D Panhandle (begin 10/7, ongoing).
6. Survey Block G storm water discharge (profile) between UST and Transformer Areas, Block G test Pits and transformer area grid. Locate limits of fuel test lab excavation areas (completed 10/7).
7. Delivery of 1 roll-off to Block D Panhandle (completed 10/9, second to be delivered 10/12).
8. Seeding and hay placed in Block D Panhandle and Block D Area F-1 tie back area (completed 10/9).

Tentative schedule week of 10/12
1. Continue to work on the Block D Panhandle conveyance structure (to be completed tentatively by 10/15).
2. Break up concrete and possible soil load out in Block G Fuel Test Lab Area (to be completed by 10/15).
3. Continue to monitor re-vegetation status of all excavation areas restored (ongoing).

Photos of Select Daily Activities

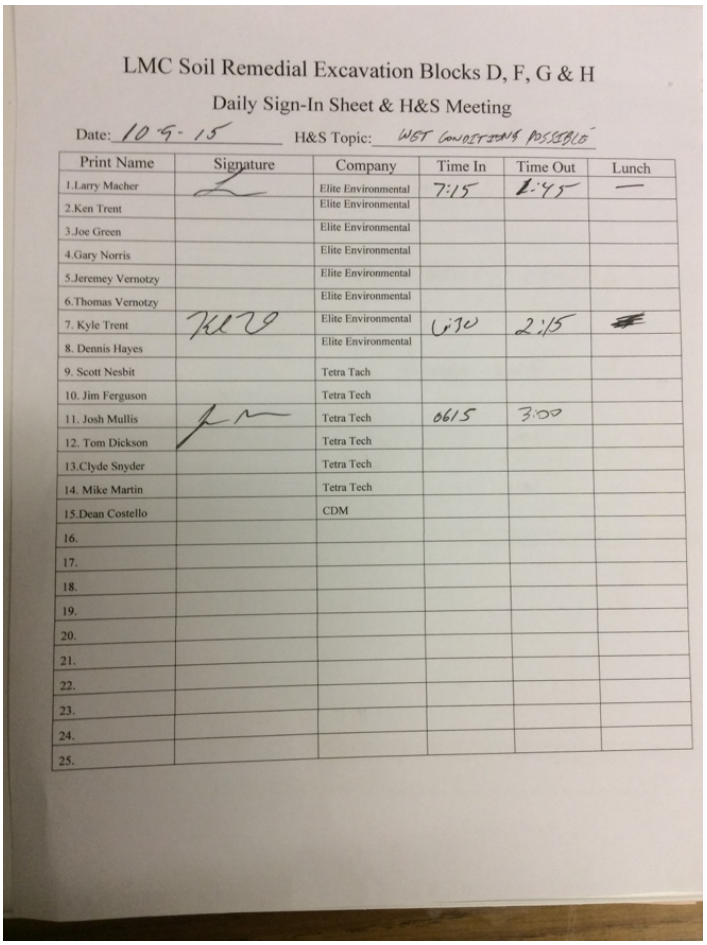


Comments: 1. Roll-off delivered by Clean Harbors for excavated soil from 36" CMP digging in Block D Panhandle.



Comments: 2. Contractor spreading hay in the Block D Panhandle top soil area.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-9-15 H&S Topic: WET CONDITIONS POSSIBLE

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	7:15	2:45	—
2.Ken Trent		Elite Environmental			
3.Joe Green		Elite Environmental			
4.Gary Norris		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental			
7. Kyle Trent		Elite Environmental	6:30	2:15	—
8. Dennis Hayes		Elite Environmental			
9. Scott Nesbit		Tetra Tach			
10. Jim Ferguson		Tetra Tech			
11. Josh Mullis		Tetra Tech	0615	3:00	
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Dean Costello		CDM			
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	November 30, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Overcast	Wind:	Light	Precipitation:	None

Weather Comments: Cold, partly cloudy, winds out of northwest.

Summary of Work/Major Activities

1. Move frac-tank from Block D location east towards Block D Panhandle (11/30).
2. Excavate small areas of soil behind Block D Panhandle to facilitate installing geotextile over exposed soil surface. Soil excavated was temporarily staged for and contained in a lined area (11/30).
3. Following installation of geotextile, backfill area immediately behind bulkhead with No. 2 stone.
4. Modify length of float switch line on centrifugal bypass pump so the location of the pump can be moved to an area that does not obstruct equipment in the vicinity of the Block D Panhandle storm water line repair. (11/30).
5. Obtain confined confined space entry permit from S. Lappe (EMCOR) and install confined space equipment so a plug can be installed in the 36" diameter discharge pipe (11/30).
6. Install 36" diameter plug for storm water diversion (11/30).
7. Begin construction of soil containment cell for soil stabilization mixing process (11/30, ongoing).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	W. Pryor	Company:	Tetra Tech
Name:	G. Norris	Company:	Elite Env.
Name:	M. Schatz	Company:	Elite Env.
Name:	K. Trent	Company:	Elite Env.
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Reviewed inspection of vehicles (dump trucks) when arriving and when leaving the site. Discussed routes of trucks coming into site areas and house keeping issues that could be problematic if trucks enter areas with debris.
2. Discussed site security measures to be utilized.
3. Excavation safety.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor construction of soil containment / treatment area in Block D Panhandle.
2. Monitor installation of geotextile and No. 2 stone behind Block G Panhandle bulkhead.
3. Inspection of Block G, F, D and D Panhandle Areas.

Planned Week Schedule

1. Install 36" storm drain plug on discharge pipe from Block D Panhandle storm water junction box (11/30).
2. Excavate soil in eroded area behind bulkhead in Block D Panhandle to facilitate installation of geotextile and No. 2 stone backfill (11/30).
3. Extend float switch line on storm water junction box bypass pump (11/30).
4. Move frac-tank to Block D Panhandle storm water repair area (11/30).
5. Conduct daily inspections of Block G, F and D water front areas (11/30, ongoing).
6. Obtain hot work permit to cut Block F UST piping, to size piping for load out in roll-off for recycling (12/1).
7. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/1).
8. Set whalers in place in Block D Panhandle storm water repair area and begin small excavation along whalers to prepare for driving sheet piles (12/3).

Photos of Select Daily Activities



Comments: 1. Initial placement of No. 2 stone over geotextile behind bulkhead in Block D / D Panhandle Areas.



Comments: 2. Looking south and east, front end loader placing No. 2 stone. In foreground, 4" ID centrifugal pump installed to bypass water from storm water junction box.

Photos of Select Daily Activities (continued)

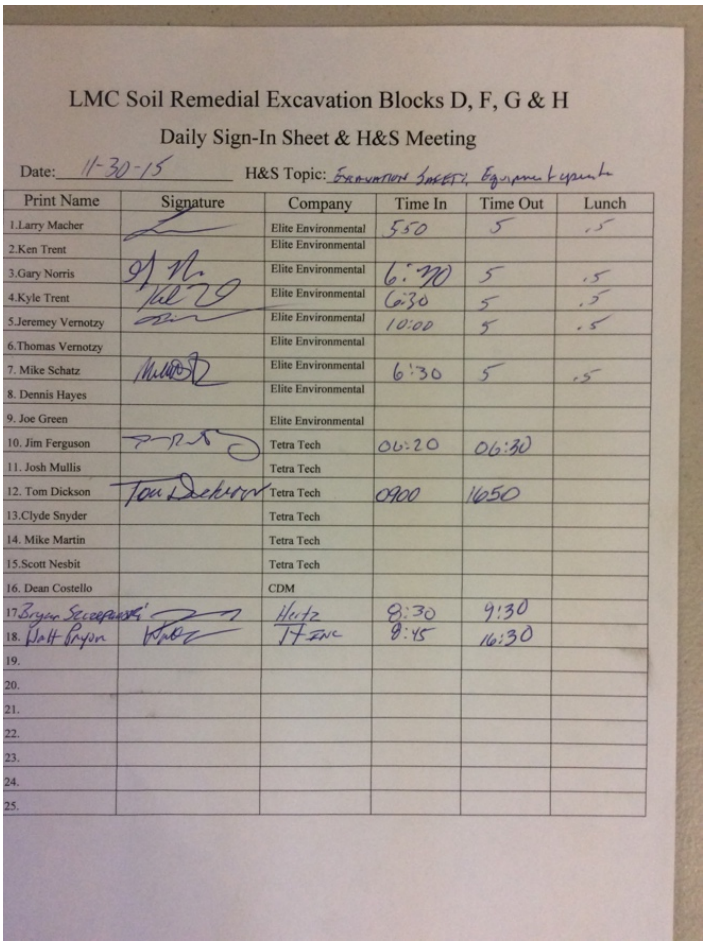


Comments: 3. Concrete blocks delivered to site for construction of soil staging / stabilization area.



Comments: 4. Storm water bypass pump installed in storm water junction box. Wood 2"X4" inside junction box opening was placed to install a float switch. Float switch line was lengthened to allow pump to be repositioned during storm water pipe repair.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 11-30-15 H&S Topic: Excavation Safety, Equipment Layout

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	5	.5
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	5	.5
4.Kyle Trent		Elite Environmental	6:30	5	.5
5.Jeremey Vernotzy		Elite Environmental	10:00	5	.5
6.Thomas Vernotzy		Elite Environmental			
7. Mike Schatz		Elite Environmental	6:30	5	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	06:20	06:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0900	1650	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17. Bryan Szczepanski		Hertz	8:30	9:30	
18. Walt Bryan		IT Inc	8:45	16:30	
19.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 2, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Overcast	Wind:	Light	Precipitation:	Heavy Rain

Weather Comments: Cloudy, overcast, light to heavy rainfall.

Summary of Work/Major Activities

1. Continue construction of soil containment cell for soil stabilization mixing process (11/30, ongoing).
2. Place stone in Block G in areas that had ruts related to Clean Harbors tanker leaving Block G 12/1 (12/2).
3. Obtained hot work permit for activities related to cutting Block F UST piping (12/1, ongoing).
4. Cut Block F UST piping (12/1, ongoing).
5. Performed inspections of water front Areas in Blocks G, F, D and D Panhandle (11/30, ongoing).
6. Procure additional 6" filter logs to enhance storm water management in Blocks G and D Panhandle (12/1-2).
7. Install fencing around open excavation in Block D Panhandle (12/2).

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
L. Macher	Elite Env.
D. Costello	CDM-Smith
G. Norris	Elite Env.
M. Schatz	Elite Env.
J. Vernotzy	Elite Env.
W. Pryor	Tetra Tech
D. Marchase	CDM-Smith

Health & Safety Topics or Issues

1. Discussed and reviewed portable equipment inspection and safety.
2. Discussed and reviewed use and inspection of ground fault interrupters.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor installation of additional E&S controls.
2. Monitor installation of fencing.

Planned Week Schedule

1. Install 36" storm drain plug on discharge pipe from Block D Panhandle storm water junction box (11/30).
2. Excavate soil in eroded area behind bulkhead in Block D Panhandle to facilitate installation of geotextile and No. 2 stone backfill (11/30).
3. Extend float switch line on storm water junction box bypass pump (11/30).
4. Move frac-tank to Block D Panhandle storm water repair area (11/30).
5. Conduct daily inspections of Block G, F and D water front areas (11/30, ongoing).
6. Obtain hot work permit to cut Block F UST piping, to size piping for load out in roll-off for recycling (11/30, ongoing).
7. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/1).
8. Set whalers in place in Block D Panhandle storm water repair area and begin small excavation along whalers to prepare for driving sheet piles (12/3).
9. Collect additional sample of concrete from Block F, UST 5 for additional analytical parameters (12/1).
10. Procure and deploy additional 6" filter logs to enhance storm water runoff measures in Blocks G and F (12/1, ongoing).
11. Inspect pumps installed to bypass storm water in Block D Panhandle (12/1, ongoing).
12. Load out Block F UST piping into roll off container for recycling (12/3).
13. Install gravel in Areas that had ruts due to the Clean Harbors truck maneuvering to leave Block G (12/2).
14. Install fencing around excavation area in Block D Panhandle (12/2).

Photos of Select Daily Activities



Comments:

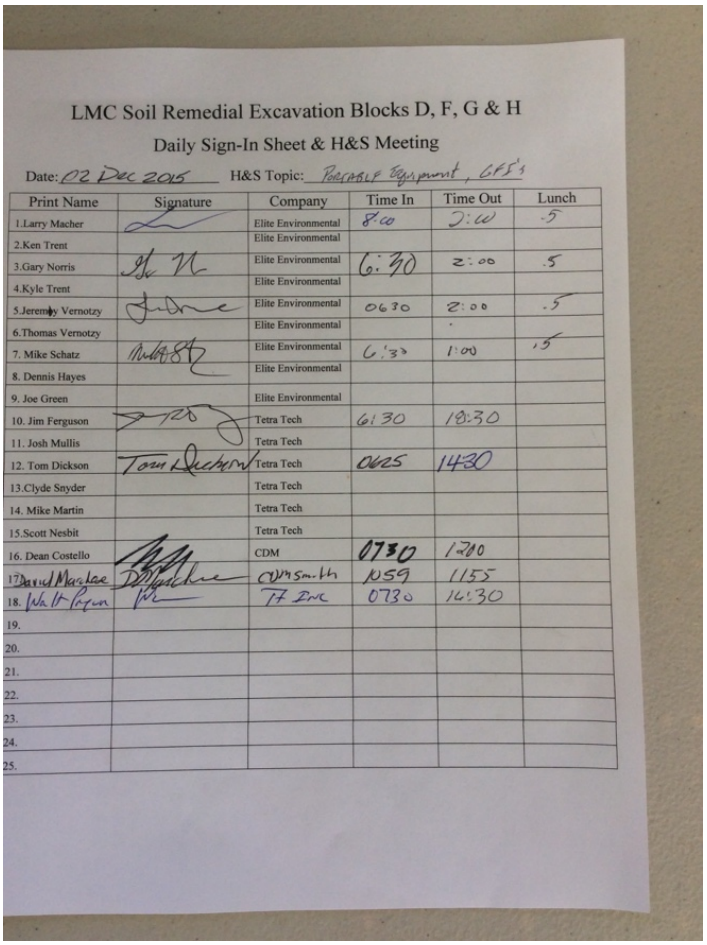
1. Reduced turbidity behind silt curtain due to installation of filter logs up-gradient of Block D Panhandle excavation.



Comments:

2. Installed fencing around opening in the vicinity of the Block D Panhandle repair.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 02 Dec 2015 H&S Topic: Portable Equipment, GFS's

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	8:00	2:00	.5
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	2:00	.5
4.Kyle Trent		Elite Environmental			
5.Jeremy Vernotzy		Elite Environmental	0630	2:00	.5
6.Thomas Vernotzy		Elite Environmental			
7. Mike Schatz		Elite Environmental	6:30	1:00	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	18:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech	0625	1430	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM	0730	1700	
17. David Maclae		CDM Smith	N59	1155	
18. Walt Pagan		T7 Inc	0730	16:30	
19.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 3, 2015	Start Work at:	6:30 AM	Depart Site at:	6:15 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	Heavy Rain

Weather Comments: Partly cloudy, winds gusting up to 20-30 mph.

Summary of Work/Major Activities

1. Load vibratory compactor on low boy trailer for return to vendor (12/3).
2. Perform General Site cleanup including removing miscellaneous debris from Blocks G, F and D, repositioning /organizing equipment left on Site, securing fencing around UST concrete staged for removal in Block F (12/3).
3. Performed daily inspection of water front areas in Blocks G, F, D and D panhandle, noting brown turbid water in all areas related to wind induced waves in Dark Head Cove and Cow Pen Creek (12/3).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	M. Schatz	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env
Name:	W. Pryor	Company:	Tetra Tech
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed and reviewed issues regarding installing liners and plywood sheeting during gusting winds.
2. Discussed and reviewed use and inspection of ground fault interrupters.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor installation of soil mixing cell liner, work started but not completed due to high winds.
2. Blocks G, F, D and D Panhandle water front inspections.

Planned Week Schedule

1. Install 36" storm drain plug on discharge pipe from Block D Panhandle storm water junction box (11/30).
2. Excavate soil in eroded area behind bulkhead in Block D Panhandle to facilitate installation of geotextile and No. 2 stone backfill (11/30).
3. Extend float switch line on storm water junction box bypass pump (11/30).
4. Move frac-tank to Block D Panhandle storm water repair area (11/30).
5. Conduct daily inspections of Block G, F and D water front areas (11/30, ongoing).
6. Obtain hot work permit to cut Block F UST piping, to size piping for load out in roll-off for recycling (11/30, ongoing).
7. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/1).
8. Set whalers in place in Block D Panhandle storm water repair area and begin small excavation along whalers to prepare for driving sheet piles (12/3).
9. Collect additional sample of concrete from Block F, UST 5 for additional analytical parameters (12/1).
10. Procure and deploy additional 6" filter logs to enhance storm water runoff measures in Blocks G and F (12/1, ongoing).
11. Inspect pumps installed to bypass storm water in Block D Panhandle (12/1, ongoing).
12. Load out Block F UST piping into roll off container for recycling (12/3).
13. Install gravel in Areas that had ruts due to the Clean Harbors truck maneuvering to leave Block G (12/2).
14. Install fencing around excavation area in Block D Panhandle (12/2).
15. Construct soil mixing cell (12/3, ongoing).
16. General site cleanup and house keeping work (dispose of debris in blocks G, F and D, organize equipment, secure remaining fencing) (12/3).
17. Load vibratory compactor on low boy trailer for return to vendor (12/3).

Photos of Select Daily Activities



Comments:

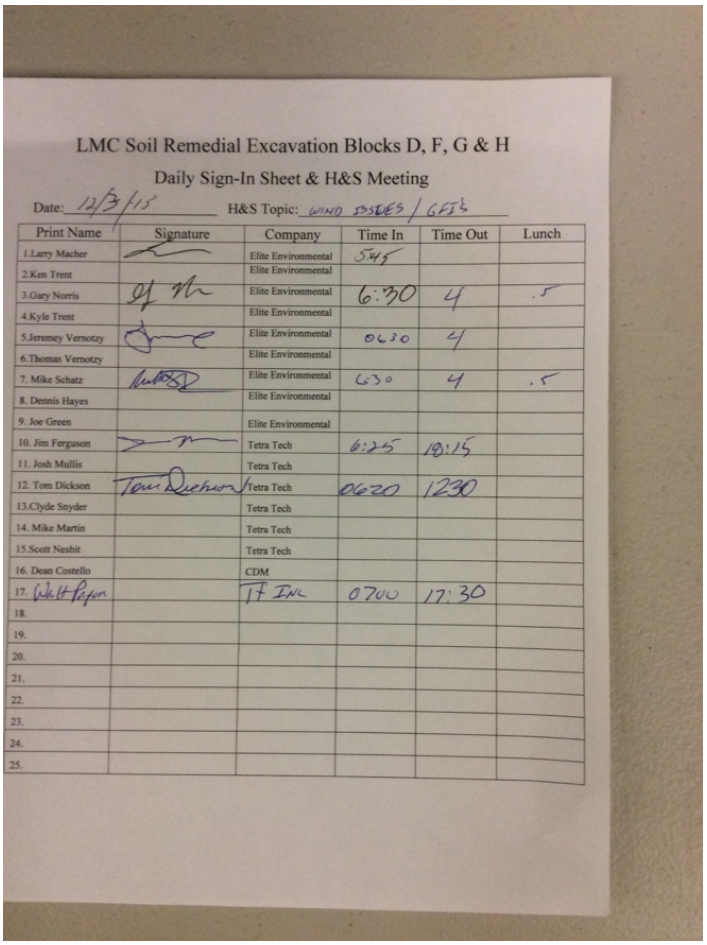
1. Site crews begin installation of soil mixing cell base. Work halted due to 20-30 mph winds which precluded crews from installing liner layers.



Comments:

2. Vibratory compactor was loaded on truck and returned to supplier.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12/3/15 H&S Topic: WIND ISSUES / GFI's

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	545		
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	4	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	4	
6.Thomas Vernotzy		Elite Environmental			
7. Mike Schatz		Elite Environmental	630	4	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:25	10:15	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0620	1230	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17. Walt Piper		IT INC	0700	17:30	
18.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 8, 2015	Start Work at:	6:30 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None
Weather Comments:	Partly cloudy, cool						

Summary of Work/Major Activities

1. Staged soil excavated from stormwater repair area in Block D Panhandle in cell (12/8, ongoing).
2. Installed portion of sheet pile walls down gradient of area where 36" corrugated pipe is damaged (12/8, ongoing).
3. Following installation of sheet piles on down gradient side of damaged 36" pipe, excavated trench to physically confirm centerline of intact up gradient 36" pipe, locating couplings (12/8).
4. Completed water front inspections in Blocks D, D Panhandle, F and G (12/8, ongoing).

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
L. Macher	Elite Env.
T. Vernotzy	Elite Env
G. Norris	Elite Env.
J. Vernotzy	Elite Env.
T. Apanavage	Tetra Tech
Jacob Jones	Mabey

Health & Safety Topics or Issues

1. Discussed scope of work for today and potential hazards.
2. Discussed slips, trips and falls in excavation area.
3. Discussed loading and moving sheet piles with pile driving equipment. Be aware of the possibility the sheet could swing if a tag line is not in place.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor installation of soil staging cell liner.
2. Blocks G, F, D and D Panhandle water front inspections.
3. Monitor layout of whalers and sheet pile lines in stormwater repair area.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D water front areas (12/7, ongoing).
2. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/9).
3. Off load whalers, cross members and sheet pile driving tool from flat bed truck in Block D Panhandle (12/7).
4. Begin a shallow excavation in the Block D Panhandle stormwater repair area to facilitate layout of whalers (12/7).
5. Set whalers in place in Block D Panhandle stormwater repair area (12/7).
6. Scheduled removal of water from the Block G UST (12/9) and removal of the water in the Block F frac-tank (week of 12/14).
7. Drive sheet piles in the Block D Panhandle stormwater repair area (12/8-10).
8. Block D Panhandle stormwater pipe replacement (12/14-17).
9. Begin soil staging activities in Block D Panhandle (12/8).
10. Dig test pit along centerline of 36" pipe in Block D Panhandle to confirm location and couplings.

Photos of Select Daily Activities



Comments: 1. Construction crew positions sheet pile in Block D Panhandle Storm Water Repair Area.



Comments: 2. Following adjusting sheet position, sheet is vibrated into place. Sheets are checked by level during installation.

Photos of Select Daily Activities (continued)

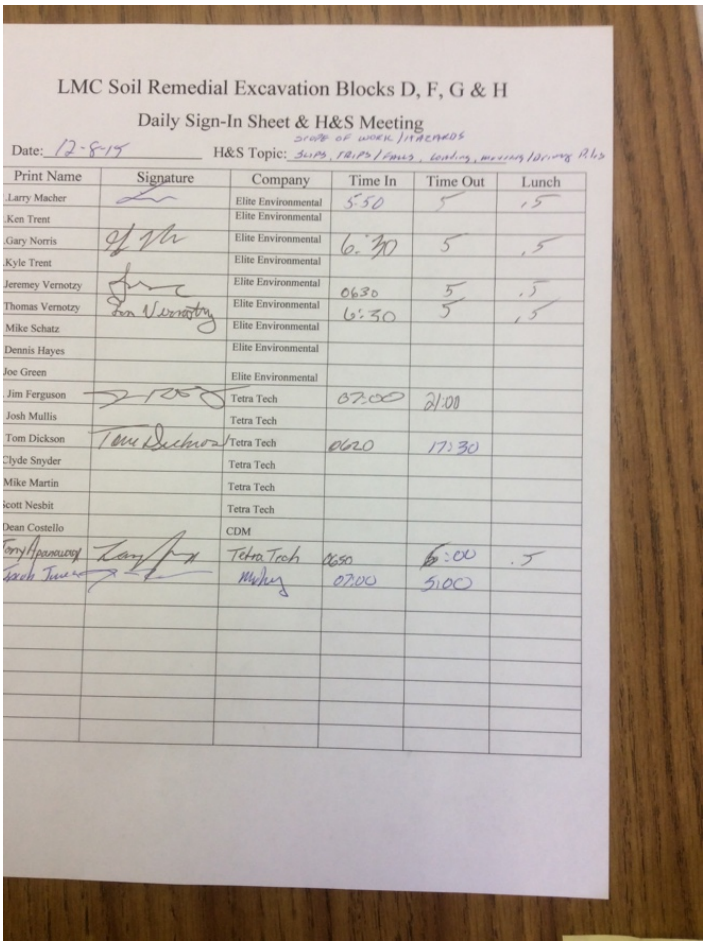


Comments:

3. Completed soil staging area adjacent to Block D Panhandle.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-8-15 H&S Topic: SCOPE OF WORK / ATTENDANCE SLIPS, TRIPS / FALLS, LIFTING, MOVING / DRIVING RULES

Print Name	Signature	Company	Time In	Time Out	Lunch
Larry Macher		Elite Environmental	5:50	5	.5
Ken Trent		Elite Environmental			
Gary Norris		Elite Environmental	6:30	5	.5
Kyle Trent		Elite Environmental			
Jeremey Vernotzy		Elite Environmental	0630	5	.5
Thomas Vernotzy		Elite Environmental	6:30	5	.5
Mike Schatz		Elite Environmental			
Dennis Hayes		Elite Environmental			
Joe Green		Elite Environmental			
Jim Ferguson		Tetra Tech	07:00	21:00	
Josh Mullis		Tetra Tech			
Tom Dickson		Tetra Tech	0620	17:30	
Clyde Snyder		Tetra Tech			
Mike Martin		Tetra Tech			
Scott Nesbit		Tetra Tech			
Dean Costello		CDM			
		Tetra Tech	0650	6:00	.5
			07:00	5:00	

Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 9, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy, cool

Summary of Work/Major Activities

1. Continued installation of sheet piles in Block D Panhandle area (12/8, ongoing).
2. During sheet pile installation, fitting broke on sheet pile drive head requiring a work stoppage at 10:30. Elite and Mabey representatives begin to disassemble the unit in preparation to install a replacement (12/9)
3. Residual soil around excavation was placed in the containment area (12/9).
4. Bobcat mini-excavator is used to excavate around 5' x 5' square concrete stormwater pipe (15:00). The excavation was intended to identify the cause of two sink holes located on the east and west sides of the storm water pipe. The excavation identified 2 locations where there were leaks on the east and west sides of the structure. Water escaping was likely causing erosion of soils with subsequent subsidence (12/9).
5. Mabey delivers a sheet pile drive head replacement for the damaged unit (12/9).
6. Removed an empty roll-off that had been delivered to Block F several weeks ago (12/9).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	T. Vernotzy	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	T. Apanavage	Company:	Tetra Tech
Name:	Katie Young	Company:	CDM-Smith
Name:	Jacob Jones	Company:	Mabey
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed scope of work for today and potential hazards.
2. Discussed slips, trips and falls in excavation area.
3. Discussed loading and moving sheet piles with pile driving equipment. Be aware of the possibility the sheet could swing if a tag line is not in place.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle waterfront inspections.
2. Monitor layout of whalers and sheet pile lines in stormwater repair area.
3. Monitor excavation along Block D 5'x 5' storm water pipe.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D water front areas (12/7, ongoing).
2. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/9).
3. Off load whalers, cross members and sheet pile driving tool from flat bed truck in Block D Panhandle (12/7).
4. Begin a shallow excavation in the Block D Panhandle stormwater repair area to facilitate layout of whalers (12/7).
5. Set whalers in Place in Block D Panhandle stormwater repair area (12/7).
6. Scheduled removal of water from the Block G UST (12/9) and removal of the water in the Block F frac-tank the week of (12/14).
7. Drive sheet piles in the Block D Panhandle stormwater repair area (12/8-10).
8. Block D Panhandle stormwater pipe replacement (12/14-17).
9. Block D test pits to discern depressions observed in field (week of 12/14).
10. Begin soil staging activities in Block D Panhandle (12/8).
11. Dig test pit along centerline of 36" pipe in Block D Panhandle to confirm location and couplings (12/8).
12. Dig test pit along 5'x 5' concrete storm water pipe (12/8).

Photos of Select Daily Activities



Comments: 1. Empty roll off removed from Block F.



Comments: 2. Looking down at a depression in the ground surface east of Block D Area F and west of Block D Panhandle stormwater repair area. Depression was next to the west side of a 5' x 5' concrete storm drain.

Photos of Select Daily Activities (continued)

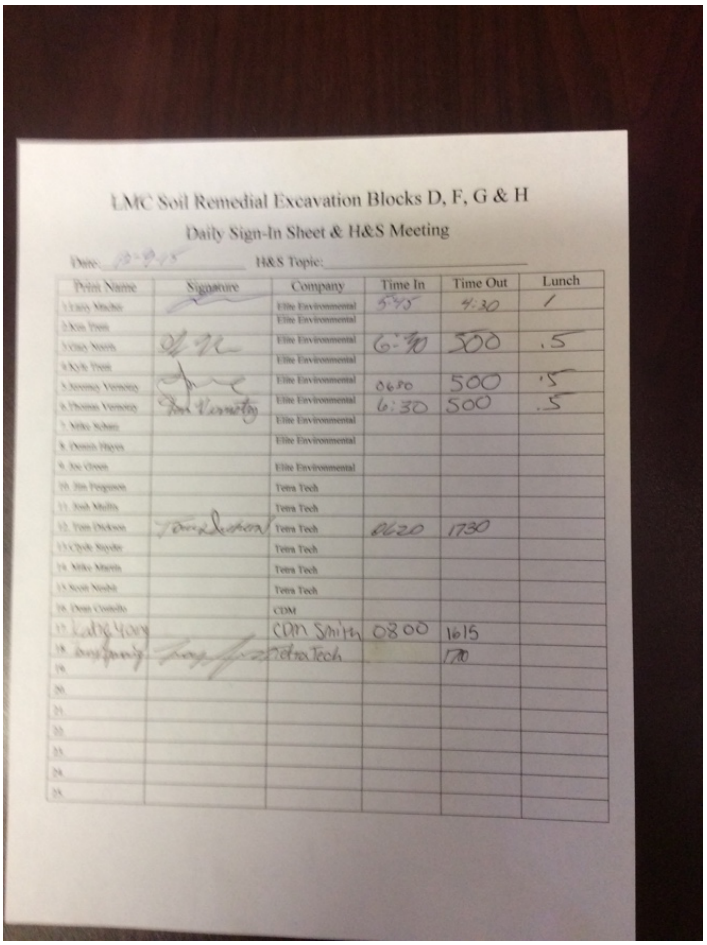


Comments: 3. Test pit dug to determine cause of depression in ground surface.



Comments: 4. Test pit located a +/- 3" diameter hole on the east and west side of the 5' x 5' concrete storm water pipe. Water was visible entering excavation at depth of opening.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 10-9-15 H&S Topic:

Print Name	Signature	Company	Time In	Time Out	Lunch
1 Larry Machie		Elite Environmental	5:45	4:30	1
2 Ken Trent		Elite Environmental			
3 Gary Norris		Elite Environmental	6:30	500	.5
4 Kyle Trent		Elite Environmental			
5 Jeremy Vernotzy		Elite Environmental	0680	500	.5
6 Thomas Vernotzy		Elite Environmental	6:30	500	.5
7 Mike Schatz		Elite Environmental			
8 Dennis Hayes		Elite Environmental			
9 Joe Green		Elite Environmental			
10 Jim Ferguson		Tetra Tech			
11 Josh Mullis		Tetra Tech			
12 Tom Dickson		Tetra Tech	0620	1730	
13 Clyde Snyder		Tetra Tech			
14 Mike Marvin		Tetra Tech			
15 Scott Nesbit		Tetra Tech			
16 Dean Costello		CDM			
17 Kathy Young		CDM Smith	0800	1615	
18 [illegible]		Tetra Tech		1700	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 10, 2015	Start Work at:	6:30 AM	Depart Site at:	6:15 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy, warm.

Summary of Work/Major Activities

1. Continued installation of sheet piles in Block D Panhandle area (12/8, ongoing). Mechanical issue with drive head occured and needed to shut down work. Mabey Inc. was contacted to have a replacement drive head delivered. Replacement drive head arrived at 15:45 and was installed onto the excavator. Damaged drive head was loaded on truck for return to Mabey Inc. for repair (12/10).
2. Moved Bobcat mini-excavator to Block G. Began to excavate around concrete vault installed over the top of the UST. Exposed piping in preparation to cut and cap to facilitate removal of vault. Completed excavation around vault and erection of temporary fencing around vault. To complete pipe terminations, a confined space permit will be required since excavations range from 4'-5' (12/10, ongoing).
3. Clean Harbors on site to vacuum water out of Block G UST (12/10).
4. S. Polasi of MDE arrives on site to deliver preliminary analytical report on Tilley Chemical stormwater discharge pipe sampling (11:30, 12/10).
5. Installed fencing around Block G UST vault excavation and posted open excavation signage (12/10).

Personnel On-Site

Name:	Company:
J. Ferguson	Tetra Tech
T. Dickson	Tetra Tech
L. Macher	Elite Env.
T. Vernotzy	Elite Env
G. Norris	Elite Env.
J. Vernotzy	Elite Env.
W. Pryor	Tetra Tech
D. Costello	CDM-Smith
M. Martin	Tetra Tech
S. Polasi	MDE

Health & Safety Topics or Issues

1. Discussed scope of work for today and potential hazards.
2. Discussed excavation safety and limiting access to areas by erecting fencing.
3. Discussed loading and moving sheet piles with pile driving equipment. Be aware of the possibility the sheet could swing if a tag line is not in place.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle waterfront inspections.
2. Monitor layout of whalers and sheet pile lines in storm water repair area.
3. Monitor excavation around block G UST.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D waterfront areas (12/7, ongoing).
2. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/9).
3. Off load whalers, cross members and sheet pile driving tool from flat bed truck in Block D Panhandle (12/7).
4. Begin a shallow excavation in the Block D Panhandle stormwater repair area to facilitate layout of whalers (12/7).
5. Set whalers in Place in Block D Panhandle storm water repair area (12/7).
6. Schedule removal of water from the Block G UST (12/9) and removal of the water in the Block F frac-tank the week of (12/14).
7. Drive sheet piles in the Block D Panhandle storm water repair area (12/8-10).
8. Block D Panhandle stormwater pipe replacement (12/14-17).
9. Block D test pits to discern depressions observed in field (week of 12/14).
10. Begin soil staging activities in Block D Panhandle (12/8).
11. Dig test pit along centerline of 36" pipe in Block D Panhandle to confirm location and couplings (12/8).
12. Dig test pit along 5'x 5' concrete storm water pipe (12/8).
13. Vacuum water from Block G UST (2,800 gallons, 12/10).
14. Begin Block G UST vault excavation to expose piping (12/10). Installed fencing around excavation at completion.

Photos of Select Daily Activities



Comments: 1. Block D storm water repair area with cross members installed. Photo shows sheet piles installed in down gradient portion of the 36" storm water line.



Comments: 2. Excavated around concrete vault installed over top of Block G UST. Exposed vault and top of tank to create access into tank to facilitate removal of sludge and to clean tank interior tank walls prior to removal. Upon completion of excavation temporary fencing was installed around excavation.

Photos of Select Daily Activities (continued)

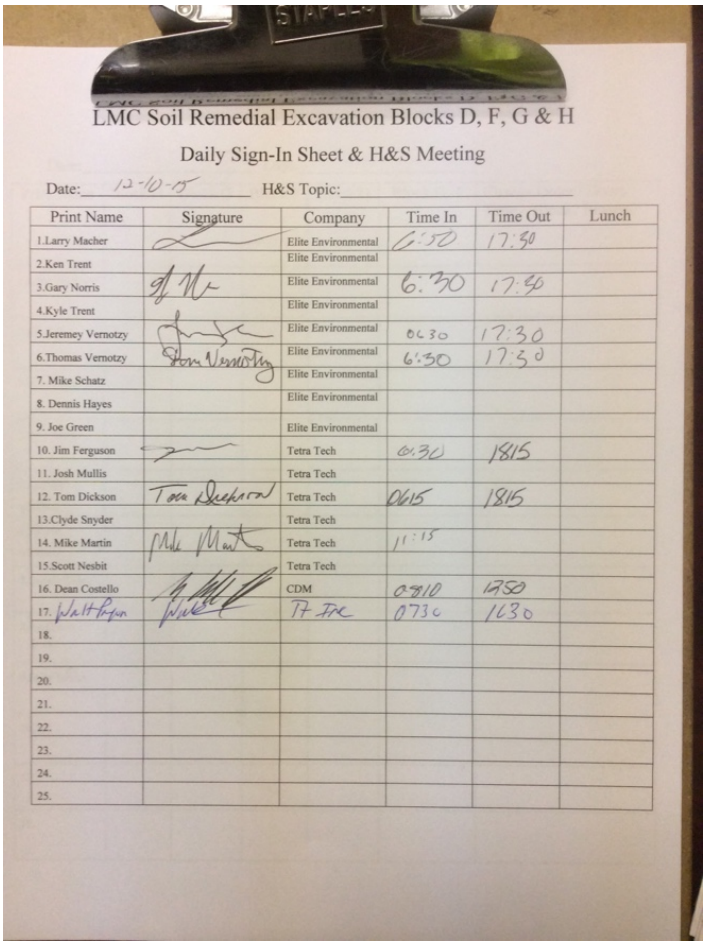


Comments: 3. Clean Harbors vac truck on site to remove water in Block G UST. Removed ~ 2800 gallons.



Comments: 4. Mabey Inc. delivers replacement sheet pile drive head. Drive head is off loaded from vehicle. Damaged drive head was loaded for return to shop for repair.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-10-15 H&S Topic:

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:50	17:30	
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	17:30	
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	17:30	
6.Thomas Vernotzy		Elite Environmental	6:30	17:30	
7. Mike Schatz		Elite Environmental			
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	0130	1815	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech	0615	1815	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech	11:15		
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM	0810	1750	
17. Walt Ryan		TT Inc	0730	1630	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 11, 2015	Start Work at:	6:30 AM	Depart Site at:	2:00 PM

Weather Conditions

Temperature (°F):	50 to 60	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy, warm.

Summary of Work/Major Activities

1. Completed installation of new sheet pile drive head and pre-operational checks (12/8, ongoing).
2. Installed 41 sheet piles in Block D Panhandle which completed east and west sheet pile walls (12/11).
3. Installed fencing around sheet pile structure in the stormwater repair area. (12/11).

Personnel On-Site

Name:	Company:
T. Dickson	Tetra Tech
K. Trent	Elite Env.
L. Macher	Elite Env.
T. Vernotzy	Elite Env
G. Norris	Elite Env.
J. Vernotzy	Elite Env.

Health & Safety Topics or Issues

1. Discussed plan for installing sheet piles in storm water repair area.
2. Discussed excavation safety and limiting access to areas by erecting fencing.
3. Discussed loading and moving sheet piles with pile driving equipment. Be aware of the possibility the sheet could swing if a tag line is not in place.
4. Noise - hearing protection.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle waterfront inspections.
2. Monitor installation of sheet piles.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D waterfront areas (12/7, ongoing).
2. Pump remaining water out of Block G UST for treatment and disposal at Clean Harbors Baltimore Facility (12/9).
3. Off load whalers, cross members and sheet pile driving tool from flat bed truck in Block D Panhandle (12/7).
4. Begin a shallow excavation in the Block D Panhandle stormwater repair area to facilitate layout of whalers (12/7).
5. Set whalers in Place in Block D Panhandle stormwater repair area (12/7).
6. Scheduled removal of water from the Block G UST (12/9) and removal of the water in the Block F frac-tank the (week of 12/14).
7. Drive sheet piles in the Block D Panhandle stormwater repair area (12/8-11, complete).
8. Block D Panhandle stormwater pipe replacement (12/14-17).
9. Block D test pits to discern depressions observed in field (week of 12/14).
10. Begin soil staging activities in Block D Panhandle (12/8).
11. Dig test pit along centerline of 36" pipe in Block D Panhandle to confirm location and couplings (12/8).
12. Dig test pit along 5'x 5' concrete stormwater pipe (12/8).
13. Vacuum water from Block G UST (2800 gallons, 12/10).
14. Begin Block G UST vault excavation to expose piping (12/10). Installed fencing around excavation at completion.

Photos of Select Daily Activities

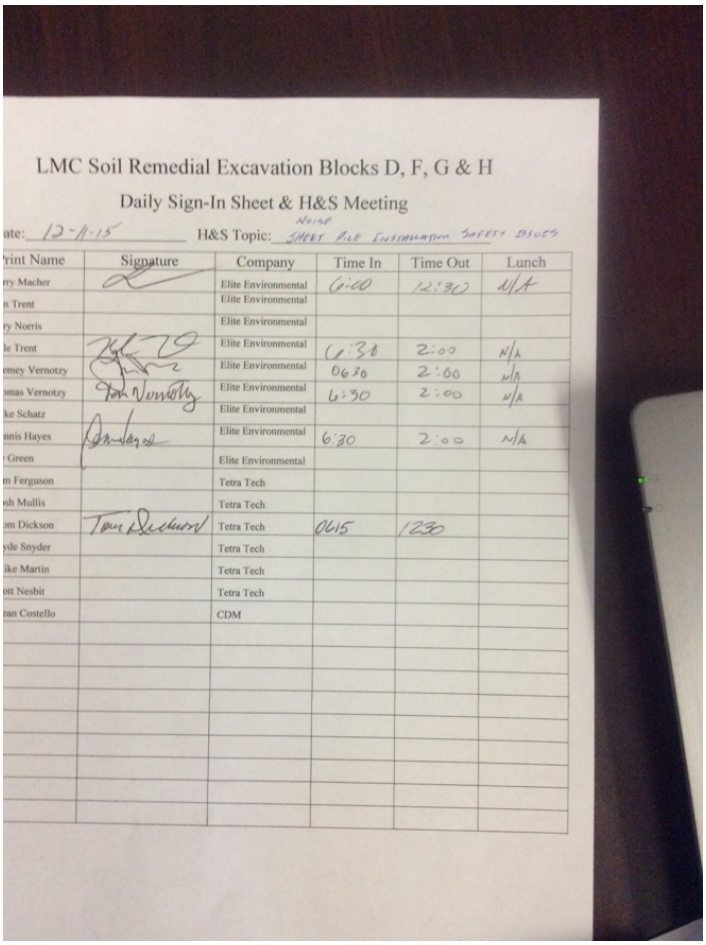


Comments: 1. Looking east at storm water repair area following installation of 41 sheet piles to finish sheet pile containment area



Comments: 2. Looking south and east at storm water repair area. Photograph is oriented along the centerline of the 36" storm water pipe.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

ate: 12-11-15 H&S Topic: Noise Sheet Pile Installation Safety Issues

Print Name	Signature	Company	Time In	Time Out	Lunch
rry Macher		Elite Environmental	6:00	12:30	N/A
n Trent		Elite Environmental			
y Norris		Elite Environmental			
le Trent		Elite Environmental	6:30	2:00	N/A
emey Vernotzy		Elite Environmental	0630	2:00	N/A
omas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	2:00	N/A
ke Schatz		Elite Environmental			
nnis Hayes		Elite Environmental	6:30	2:00	N/A
Green		Elite Environmental			
n Ferguson		Tetra Tech			
sh Mullis		Tetra Tech			
om Dickson	Tom Dickson	Tetra Tech	0615	1230	
yde Snyder		Tetra Tech			
ike Martin		Tetra Tech			
ott Nesbit		Tetra Tech			
nan Costello		CDM			

Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 14, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	60 to 70	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	Light Rain

Weather Comments: Partly cloudy, warm, light rain in the afternoon, winds out of the south.

Summary of Work/Major Activities

1. Excavate soil from between sheet pile walls along the centerline of the existing 36" inside diameter storm water line (12/14).
2. Soil excavated and placed in soil containment area for subsequent sampling, characterization and disposal (12/14, ongoing).
3. Remove damaged portion of 36" ID stormwater line (12/14, ongoing).
4. Install booms outside of bulkhead wall in the event sheen is liberated from soils in or around the sheet pile wall (12/14, ongoing).
5. Pump impacted water inside sheet pile containment into frac-tank for subsequent characterization and disposal (12/14, ongoing).
6. Install base layer of No. 2 stone in sheet pile containment area following removal of soil (12/14).
7. Performed daily inspections of waterfront areas (12/14).

Personnel On-Site

Name:		Company:	
Name:	T. Dickson	Company:	Tetra Tech
Name:	J. Ferguson	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	T. Vernotzy	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	M. Schatz	Company:	Elite Env.
Name:	W. Pryor	Company:	Tetra Tech
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed excavation safety and limiting access to areas by erecting fencing.
2. Reviewed confined space procedures that may be applicable to today's activities.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle waterfront inspections.
2. Monitor removal of 36" stormwater pipe in additional to soil and groundwater.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D waterfront areas (12/14, ongoing).
2. Pump water out of Block Storm water excavation for storage, characterization, treatment/ disposal (12/14, ongoing).
3. Excavate soil in the Block D Panhandle stormwater repair area and place in soil containment area (12/14, ongoing).
4. Block D Panhandle stormwater pipe installation/replacement (12/15-17).
5. Collect soil sample and groundwater sample from stormwater repair area for waste stream characterization (12/14).
6. Pump water from within sheet pile containment area to frac-tank staged in Block D stormwater repair area (12/14, ongoing).
7. Remove water from Block F frac-tank for treatment and disposal (12/15).
8. Install 36" ID storm water pipe in Block D stormwater pipe repair area (12/15).

Photos of Select Daily Activities



Comments: 1. Excavation of soil between sheet pile walls exposes the damaged portion of the 36" ID steel corrugated stormwater pipe in Block D.



Comments: 2. Photograph depicts the the damaged 36" SCP with the coupling disconnected (damaged portion on the right side of pipe joint).

Photos of Select Daily Activities (continued)

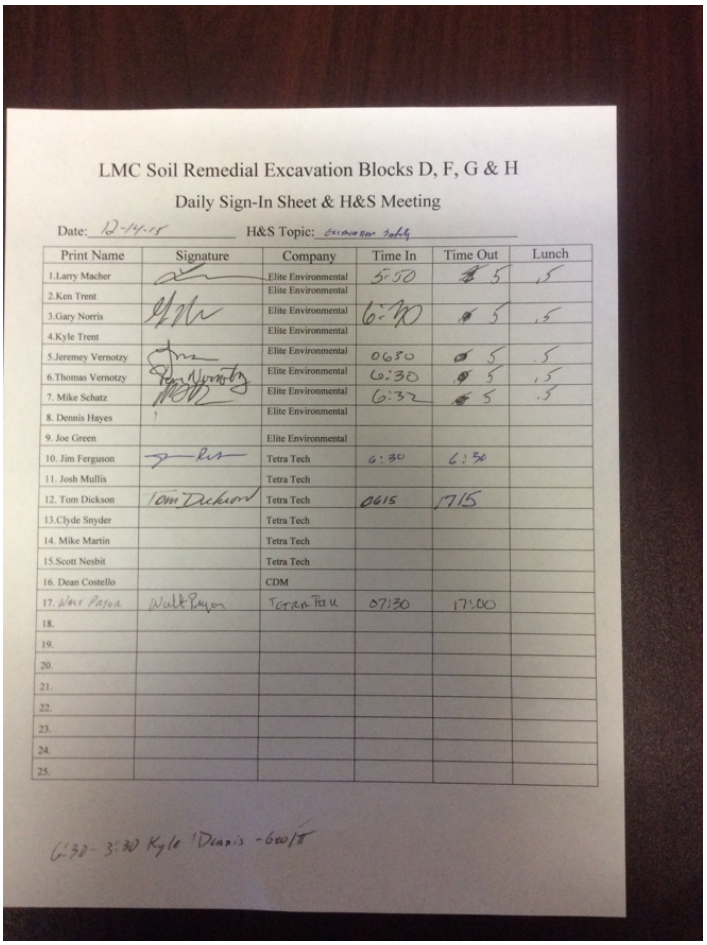


Comments: 3. Damaged section of 36" ID steel corrugated being removed from excavation.



Comments: 4. Excavation following removal of a portion of the 36" ID storm water pipe. Soils were removed following pipe remoal. Water was pumped into the frac-tank staged in proximity to work area and a base layer of No. 2 stone was installed in the excavation.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-14-15 H&S Topic: Excavation Safety

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	5	.5
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	5	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	5	.5
6.Thomas Vernotzy		Elite Environmental	6:30	5	.5
7. Mike Schatz		Elite Environmental	6:32	5	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	6:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0615	1715	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17. Work Payne	Walt Payne	Tetra Tech	07:30	17:00	
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6:30 - 3:30 Kyle / Deans - 600/5

Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 15, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	50 to 60	Skies:	Partly Cloudy	Wind:	Moderate	Precipitation:	None

Weather Comments: Partly cloudy, warm, winds out of the northwest.

Summary of Work/Major Activities

1. Excavate additional soil from between sheet pile walls along the centerline of the existing 36" inside diameter stormwater line (12/14-15).
2. Excavated soil placed in containment area for subsequent sampling, characterization and disposal (12/14-15, ongoing).
3. Install whalers and cross members in sheet pile containment structure (12/15).
4. Install 36" HDPE round corrugated pipe (12/15, ongoing), seal pipe connection, and backfill around pipe.
5. Pump water inside sheet pile containment into frac-tank for subsequent characterization and disposal (12/14-15, ongoing).
6. Backfill stormwater repair area with No. 57 stone (12/15).
7. Perform daily inspections of waterfront areas (12/14-15, ongoing).
8. Remove 5,000 gallons of water from Block F frac-tank (water from UST area) for treatment and disposal by Clean Harbors Baltimore facility (12/15).

Personnel On-Site

Name:		Company:	
Name:	T. Dickson	Company:	Tetra Tech
Name:	J. Ferguson	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	T. Vernotzy	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	M. Schatz	Company:	Elite Env.
Name:	W. Pryor	Company:	Tetra Tech
Name:	S. Nesbit	Company:	Tetra Tech
Name:	D. Costello	Company:	CDM Smith
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed slips trips and falls due to light rain last night.
2. Reviewed confined space procedures that may be applicable to today's activities.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle waterfront inspections.
2. Monitor installation of 36" HDPE stormwater pipe and backfill.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D waterfront areas (12/14, ongoing).
2. Pump water out of Block stormwater excavation for storage, characterization, treatment/ disposal (12/14, ongoing).
3. Excavate soil in the Block D Panhandle stormwater repair area and place in soil containment area (12/14, ongoing).
4. Block D Panhandle stormwater pipe installation/replacement (12/5-17).
5. Collect soil sample and water sample from stormwater repair area for waste stream characterization (12/14).
6. Pump water from within stromwater repair area to frac-tank staged in Block D storm water repair area 12/14, ongoing).
7. Remove water from Block F frac-tank for treatment and disposal (12/15-16).
8. Install 36" ID stormwater pipe in Block D storm water pipe repair area (12/15-17).

Photos of Select Daily Activities



Comments: 1. Install whalers and cross members in sheet piled excavation to facilitate installation of 36" HDPE corrugated pipe.



Comments: 2. Photograph depicts the installation of the 36" HDPE Corrugated pipe.

Photos of Select Daily Activities (continued)

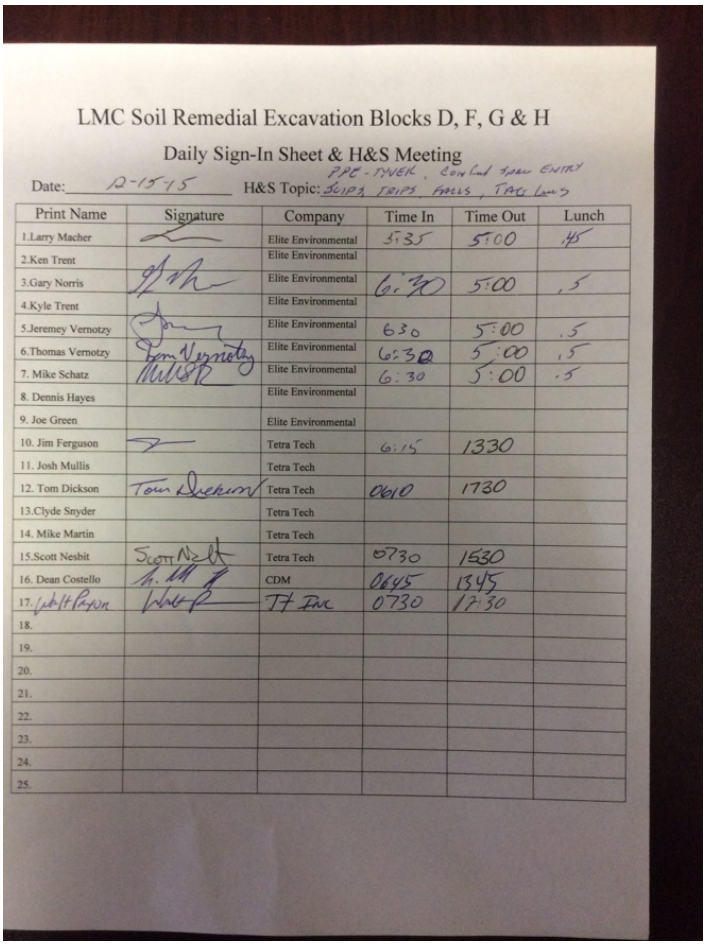


Comments: 3. Backfilling around the 36" HDPE corrugated pipe with No. 57 stone following installation, connection and sealing pipe joint.



Comments: 4. Clean Harbors pumps water generated from the Block F UST removal for treatment and disposal at the Clean Harbors Baltimore facility.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-15-15 H&S Topic: PPE - TYVEK, Confined Space ENTRY SLIPS, TRIPS, FALLS, TAKE Lunch

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:35	5:00	.45
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	5:00	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	630	5:00	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	5:00	.5
7. Mike Schatz		Elite Environmental	6:30	5:00	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:15	1330	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0610	1730	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit	Scott Nesbit	Tetra Tech	0730	1530	
16. Dean Costello		CDM	0645	1345	
17. [illegible] Payne		TT Inc	0730	17:30	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 16, 2015	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	50 to 60	Skies:	Partly Cloudy	Wind:	Moderate	Precipitation:	None

Weather Comments: Partly cloudy, warm, winds out of the northwest.

Summary of Work/Major Activities

1. Installed down gradient portion of 36" ID HDPE pipe.
2. Following pipe installation, sealed pipe joint with sealant compound, wrapped pipe joint with geotextile (12/16).
3. Covered distal portion of pipe with No. 57 stone (12/16).
4. Soil removed during installation of pipe was placed in containment area and covered with plastic (12/16).

Personnel On-Site

Name:	Company:
T. Dickson	Tetra Tech
J. Ferguson	Tetra Tech
L. Macher	Elite Env.
T. Vernotzy	Elite Env
G. Norris	Elite Env.
J. Vernotzy	Elite Env.
M. Schatz	Elite Env.
W. Pryor	Tetra Tech
T. Apanavage	Tetra Tech

Health & Safety Topics or Issues

1. Discussed slips trips and falls due to light rain last night.
2. Reviewed confined space procedures that may be applicable to today's activities.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle water front inspections.
2. Monitor installation of 36" HDPE storm water pipe and backfill.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D waterfront areas (12/14, ongoing).
2. Pump water out of Block stormwater excavation for storage, characterization, treatment/ disposal (12/14, ongoing).
3. Excavate soil in the Block D Panhandle stormwater repair area and place in soil containment area (12/14, ongoing).
4. Block D Panhandle stormwater pipe installation/replacement (12/15-17).
5. Collect soil sample and water sample from storm water repair area for waste stream characterization (12/14).
6. Pump water from between sheet pile repair area into frac-tank staged in Block D storm water repair area (12/14, ongoing).
7. Remove water from Block F frac-tank for treatment and disposal (12/15-16).
8. Install 36" ID storm water pipe in Block D stormwater pipe repair area (12/15-17).
9. Install concrete cover over 36" pipe joint (12/17).
10. Following installation of concrete, cover area with No. 57 stone and grade (12/17).
11. Remove remaining water from frac-tank in Block F for treatment and disposal by Clean Harbors (12/17).

Photos of Select Daily Activities



Comments: 1. Distal portion of 36" HDPE pipe positioned for installation.



Comments: 2. 36" pipe placed between sheet pile walls being advanced through opening in bulkhead.

Photos of Select Daily Activities (continued)

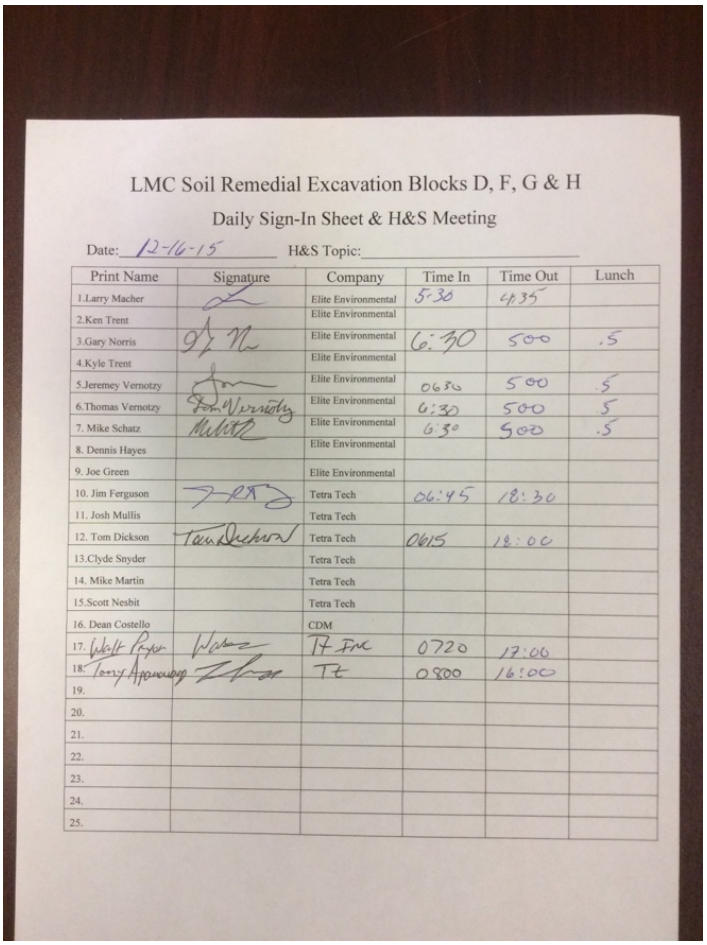


Comments: 3. Geotextile was wrapped around pipe connection following coupling pipes together and sealing.



Comments: 4. Stone (no. 57) is placed on top of 36" pipe following completing connection.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-16-15 H&S Topic:

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:30	4:35	
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	500	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	500	.5
6.Thomas Vernotzy		Elite Environmental	6:30	500	.5
7. Mike Schatz		Elite Environmental	6:30	500	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	06:45	18:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech	0615	18:00	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17. Walt Pryor		TT Inc	0720	17:00	
18. Tony Apanowicz		TT	0800	16:00	
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23.					
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 17, 2015	Start Work at:	6:30 AM	Depart Site at:	4:00 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Overcast	Wind:	Moderate	Precipitation:	Light Rain

Weather Comments: Overcast, intermittent to steady rainfall.

Summary of Work/Major Activities

1. Received No. 2 and No. 57 stone for backfill from Agtrans for stormwater repair area (12/17).
2. Following pipe installation, sealed pipe joint with 3 cubic yards of concrete (12/17).
3. Covered distal portion of concrete pipe seal with No. 57 stone followed by No. 2 stone (12/17).
4. Decontaminated both trac-hoes following stone placement (12/17).
5. Removed booms between bulkhead and silt curtain (12/17).
6. Removed 1595 gallons of water from Block F frac-tank for treatment / disposal of water from UST removal excavation at Clean Harbors Baltimore Facility (Manifest No. 982975, 12/17).
7. Rain for Rent driver repositions frac-tank in Block G for containment of water from Block G Fuel Test Lab (FTL) (12/17).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	T. Vernotzy	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	D. Costello	Company:	CDM-Smith
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed slips trips and falls due to light rainy conditions.
2. Discussed hazards associated with concrete, emphasized hand, skin and eye protection.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle water front inspections.
2. Monitor placement of concrete joint seal and placement of stone over seal.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D waterfront areas (12/14, ongoing).
2. Pump water out of Block Storm water excavation for storage, characterization, treatment/ disposal (12/14, ongoing).
3. Excavate soil in the Block D Panhandle stormwater repair area and place in soil containment area (12/14, ongoing).
4. Block D Panhandle storm water pipe installation/replacement (12/5-17).
5. Collect soil sample and water sample from storm water repair area for waste stream characterization (12/14).
6. Pump water from within sheet pile containment area to frac-tank staged in Block D storm water repair area (12/14, ongoing).
7. Remove water from Block F frac-tank for treatment and disposal (12/15-16).
8. Install 36" ID storm water pipe in Block D storm water pipe repair area (12/15-17).
9. Install concrete cover over 36" pipe joint (12/17).
10. Following installation of concrete, cover area with No. 57 stone and grade (12/17).
11. Remove remaining water from frac-tank in Block F for treatment and disposal by Clean Harbors (12/17).
12. Reposition frac-tank from Block F to Block G (12/17, complete).

Photos of Select Daily Activities



Comments: 1. Exposed portion of 36" pipe repair prior to concrete installation.



Comments: 2. Concrete truck backed into position prior to installation of concrete at 36" HDPE pipe joint.

Photos of Select Daily Activities (continued)

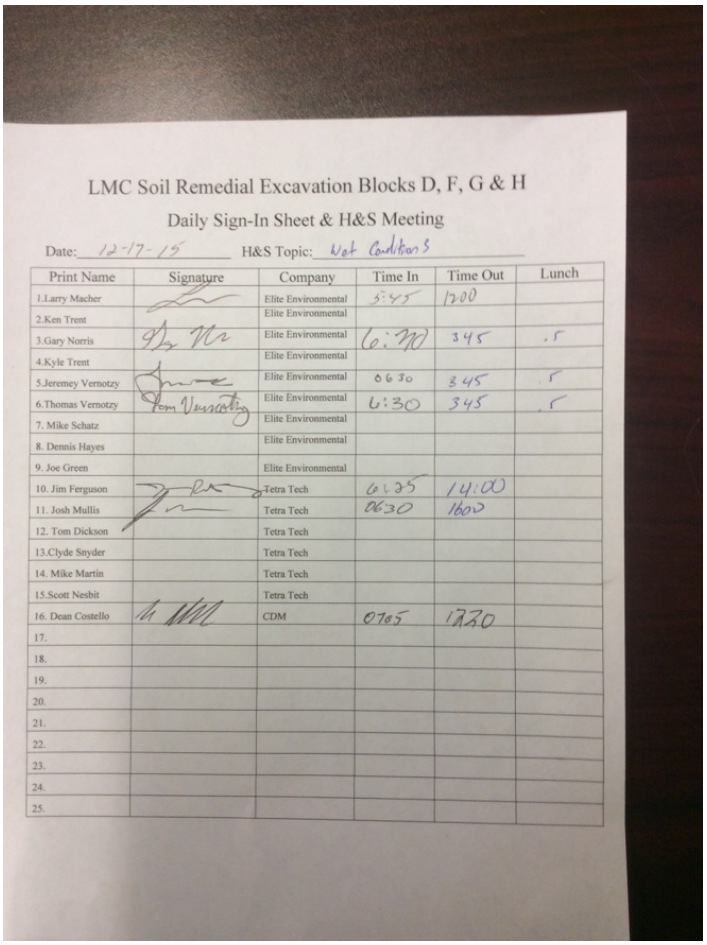


Comments: 3. Preparing to install concrete joint seal (3 cubic yards).



Comments: 4. Down gradient concrete joint seal

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-17-15 H&S Topic: Wet Conditions

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:45	1700	
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	345	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	345	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	345	.5
7. Mike Schatz		Elite Environmental			
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:25	14:00	
11. Josh Mullis		Tetra Tech	0630	1600	
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM	0705	1720	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 21, 2015	Start Work at:	6:30 AM	Depart Site at:	6:45 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Overcast	Wind:	Moderate	Precipitation:	None

Weather Comments: Overcast, slight winds out of north west

Summary of Work/Major Activities

1. Dismantled centrifugal pump, suction and discharge hose used to bypass storm water around Block D storm water repair area (complete).
2. Set up confined space equipment, procured confined space entry permit from S. Lapp (EMCOR) and tested atmosphere in Block D storm water piping junction box. Following clearing atmosphere and evacuation of water in junction box, deflated pneumatic plug in 36" storm water pipe and removed plug (complete).
3. Performed site cleanup activities in Block D storm water repair area (complete).
4. Moved trac-hoe through Block D to Block F (complete).
5. Set up centrifugal pump and hose to frac-tank for water transfer in Block G Fuel Test Lab (FTL) Area (complete).
6. Excavated soil around piping runs at Block G UST Area (12/21, ongoing).
7. Began to gain access to Block G UST using a drill and reciprocating saw (12/21, ongoing).
8. Installed temporary fencing around LMC Outfall 008 (complete).
9. Place excavated steel piping from the Block F UST area into a roll off in Block F (complete).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	M. Schatz	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	L. Macher	Company:	Elite Env.
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed excavation safety related to removing soil around pipes.
2. Discussed confined space procedures.

QC Procedures/Inspections/Testing to be Performed Today

1. Blocks G, F, D and D Panhandle water front inspections.
2. Monitor excavation of soil around piping runs at the Block G UST.
3. Monitor atmosphere in Block D storm water pipe junction box following calibration of four-gas monitor and issuance of confined space permit while Elite staff remove plug from 36" ID storm water pipe.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D water front areas (12/14, ongoing).
2. Obtain confined space permit, test atmosphere in Block D storm water junction box vault and remove 36" nominal plug (complete 12/21).
3. Disassemble centrifugal pump, hard suction and discharge hose used to bypass storm water from vault to Dark Head Cove (complete 12/21).
4. Moved trac-hoe to Block F (complete 12/21).
5. Began excavating soil from around piping runs in Block G UST Area (12/21, ongoing).
6. Began attempts to gain access to the interior of the Block G UST using a drill and reciprocating saw (12/21, ongoing).
7. Installed temporary fencing around LMC Outfall 008 (complete 12/21).
8. Place excavated steel piping from the Block F UST area into a roll off in Block F (completed 12/21).

Tentative schedule week of 12/21
1. Tidy up the Block D storm water repair work area upon completion of grading activities (to be completed by 12/22).
2. Block G UST area activities including excavating soil around piping to cut and plug pipes before tank pulling activities and opening the tank to see contents (to be completed by 12/23).
3. Pump storm water from the Block G FTL area into the frac tank located in Block G (to begin 12/22).

Photos of Select Daily Activities



Comments: 1. Block D storm water repair area following installation of 36" Inside Diameter (ID) HDPE pipe. Straw placed over areas where grass was stressed to mitigate erosion.



Comments: 2. Block D storm drain repair area: Confined space entry, elite personnel in the process of removing the 6' rubber plug installed during the storm drain construction process. Plug removed 12/21.

Photos of Select Daily Activities (continued)

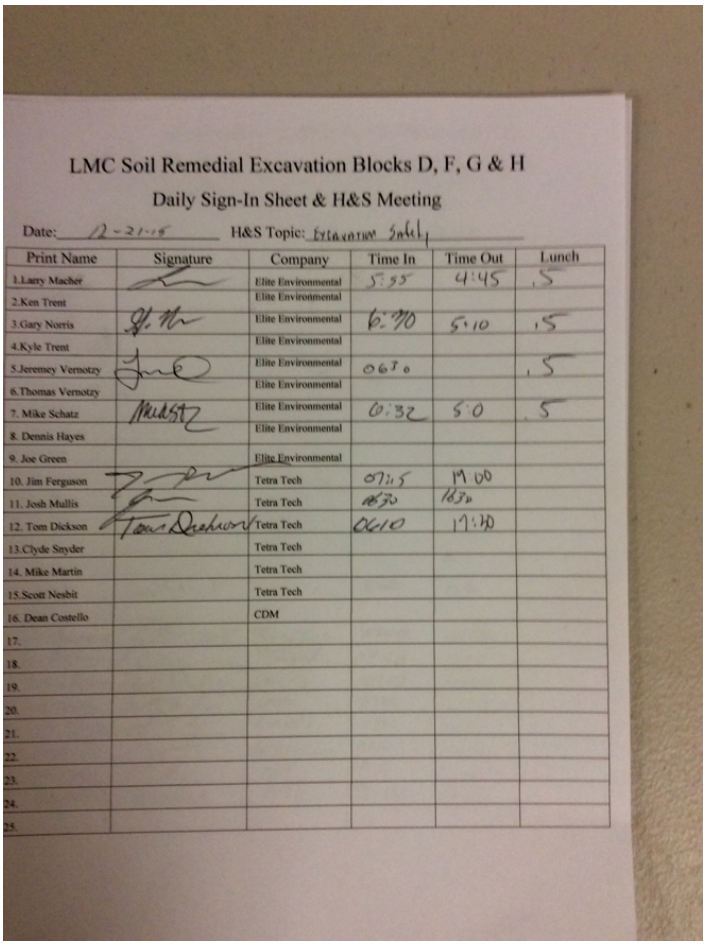


Comments: 3. Excavation around piping to expose Block G UST.



Comments: 4. Installed fencing around depression caused by headward erosion around LMC Outfall 008.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-21-15 H&S Topic: Excavation Safety

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:55	4:45	.5
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	5:10	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630		.5
6.Thomas Vernotzy		Elite Environmental			
7. Mike Schatz		Elite Environmental	0632	5:0	.5
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	0715	19:00	
11. Josh Mullis		Tetra Tech	0630	1830	
12. Tom Dickson		Tetra Tech	0610	17:30	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	December 23, 2015	Start Work at:	6:30 AM	Depart Site at:	2:30 PM

Weather Conditions

Temperature (°F):	40 to 50	Skies:	Overcast	Wind:	Moderate	Precipitation:	Heavy Rain

Weather Comments:

Summary of Work/Major Activities

1. Decontaminate tools / equipment from UST related activities with a pressure washer and liquinox (photo 1). Decon fluids were collected into a 5-gallon bucket and will be disposed of during UST removal activities.
2. General site cleanup in Block G, check E&S controls around the site in Blocks G, D, and F in preparation for the holiday break and due to the heavy rain conditions (photo 2).
3. Use skid steer to move drums consisting of absorbent pads generated from the Block G UST area to the Block E drum storage area.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Environmental
Name:	J. Vernotzy	Company:	Elite Environmental
Name:	T. Vernotzy	Company:	Elite Environmental
Name:	G. Norris	Company:	Elite Enviromental
Name:		Company:	
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Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Wet conditions; be aware of slippery muddy surfaces and always maintain three points of contact.

QC Procedures/Inspections/Testing to be Performed Today

1. Decontaminate tools/equipment using a power washer.

Planned Week Schedule

1. Conduct daily inspections of Block G, F and D water front areas (12/14, ongoing).
2. Obtain confined space permit, test atmosphere in Block D storm water junction box vault and remove 36" nominal plug (complete 12/21).
3. Disassemble centrifugal pump, hard suction and discharge hose used to bypass storm water from vault to Dark Head Cove (complete 12/21).
4. Moved trac-hoe to Block F (complete 12/21).
5. Began excavating soil from around piping runs in Block G UST Area (12/21, ongoing).
6. Began attempts to gain access to the interior of the Block G UST using a drill and reciprocating saw (12/21, ongoing).
7. Installed temporary fencing around LMC Outfall 008 (complete 12/21).
8. Place excavated steel piping from the Block F UST area into a roll off in Block F (completed 12/21).
9. Pump storm water from the Block G FTL excavation into the frac tank located in Block G (begin 12/22).
10. Cut, bend upward, and plug all pipes running from the Block G UST, as well as cut 2' by 3' openings on each end of the UST in preparation for future tank pulling activities (completed 12/22).
11. Clean Harbors vacuum contents of the Block G UST, approx 1,400 gallons (completed 12/22).
12. Decontaminate tools/equipment used during Block G UST activities (completed 12/23).
13. Mob drums generated from the Block G UST activities (absorbent pads) from Block G to the storage area in Block E (completed 12/23).

Tentative schedule week of 12/28
1. Continue to pump storm water from the Block G FTL excavation into the frac tank in Block G (to be completed by 12/30).
2. Clean Harbors to begin hauling storm water in the Block G frac tank to the disposal facility (to be completed by 12/30).
3. Begin backfilling the Block G FTL excavation with No. 2 stone (begin 12/28-29).
4. Load out steel / scrap metal from Block D and Block F (to be completed by 12/29).
5. Weather permitting, pull remaining piping and sample soil associated with the Block F UST area near Bulkhead (to be completed 12/28).
6. Load out rolloff located in Block D (to be completed by 12/30).

Photos of Select Daily Activities

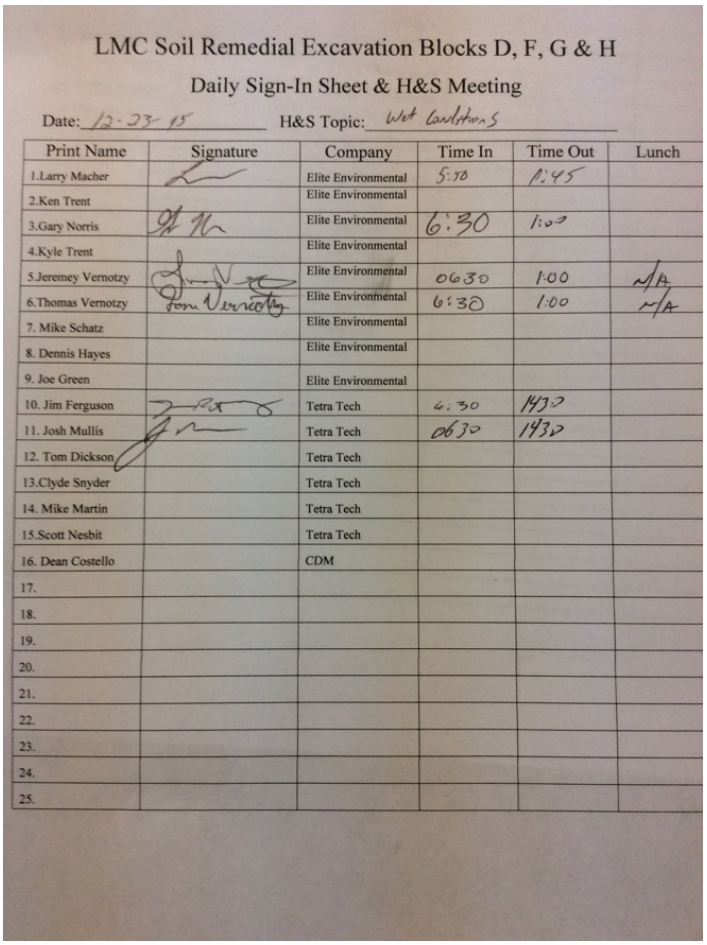


Comments:

1. Elite personnel utilizing a power washer to decontaminate equipment caked with mud from previous work. Decon water was collected into a 5 gallon bucket and will be disposed of during UST removal.

Comments:

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 12-23-15 H&S Topic: Wet Conditions

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:30	1:45	
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	1:00	
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	1:00	N/A
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	1:00	N/A
7. Mike Schatz		Elite Environmental			
8. Dennis Hayes		Elite Environmental			
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	4:30	1430	
11. Josh Mullis		Tetra Tech	0630	1430	
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	January 5, 2016	Start Work at:	6:30 AM	Depart Site at:	6:30 PM

Weather Conditions

Temperature (°F):	10 to 20	Skies:	Partly Cloudy	Wind:	Moderate	Precipitation:	None

Weather Comments: Partly cloudy, cold, winds out of northeast.

Summary of Work/Major Activities

1. Clean Harbors (Clean Ventures Inc) tankers loaded with water (approx 6,600 gallons) from the Block G frac tank and sent to the disposal facility. The frac tank is now empty.
2. Roller delivered to site and then utilized to compact the Block F UST pipe area backfill (photo 1) and the Block G FTL excavation.
3. Mini-excavator moved from Block G to Block D and then utilized to remove the No. 2 stone from around the previously installed storm drain line (photo 2) to visualize the extent of the void between the bulkhead and the 42" OD / 36" ID HDPE pipe. The void between the bulkhead and the 42" OD pipe appears to be 3" (photo 3). The method to fill the void and remedy the issue is still under discussion.
4. Excavator utilized in the Block G UST excavation to backfill No. 2 stone followed by backfilling with the previously excavated soil (after given approval by CDM and LMC). Backfill was only placed up to the pipes remaining in the excavation for easy access when the pipe runs are excavated on 1/6.
5. AV Burke LLC onsite to survey the excavation limits of the Block G UST area as well as the Block D stormwater drain area (Block D see photo 4).

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	J. Mullis	Company:	Tetra Tech
Name:	T. Dickson	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	T. Vernotzy	Company:	Elite Env.
Name:	D. Hayes	Company:	Elite Env.
Name:	Vi. Burke	Company:	AV Burke LLC
Name:	V. Burke	Company:	AV Burke LLC
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Cold weather, wear proper PPE for the job; wear layers, thick socks, insulated work gloves etc.
2. Discussed machinery safety, use spotters, keep eye contact when moving near the moving machine.

QC Procedures/Inspections/Testing to be Performed Today

1. Spotters utilized while excavator, roller, and mini-excavator were in use.
2. AV Burke LLC survey excavation limits in Block G and Block D.

Completed Week Schedule

1. Conduct daily inspections of Block G, F and D water front areas (1/4, ongoing).
2. Test atmosphere of Block G UST and subsequently remove UST from the ground (completed 1/4).
3. Remove water from Block G frac-tank for treatment and disposal (frac tank empty 1/5).
4. Place No.2 stone backfill in Block G FTL excavation (1/4, ongoing),
5. Collect verification samples from Block G UST excavation and ship to Test American North Canton (completed 1/4).
6. After UST removal, decontaminated interior of UST, fluids vacuumed out by Clean Harbors straight truck and transported to Clean Harbors facility (completed 1/4).
7. Installed temporary fencing around excavation (completed 1/4).
8. Backfill the Block G UST area with No. 2 stone followed by previously excavated soil (begin 1/5, ongoing).
9. Utilize mini-excavator to pull back No. 2 stone in the Block D storm drain repair area (completed 1/5).
10. Utilize roller to compact backfilled excavations in Block F and Block G (begin 1/5, ongoing).
11. AV Burke LLC survey excavation limits for the Block G UST area and the Block D storm drain repair area (completed 1/5).

Tentative schedule week of 1/4

1. Excavate remaining piping runs from the former Block G UST with MDE assistance and collect confirmatory samples along piping runs (to be completed 1/6).
2. Begin backfill placement in Block G UST excavation and piping runs (approval given for backfill using excavated soil 1/5, begin backfill 1/5).
3. Excavate additional sidewall along the Block G FTL excavation followed by confirmatory sampling (to be completed by 1/7).
4. Remove former Block G UST from site (awaiting approval).

Photos of Select Daily Activities



Comments: 1. Block D storm drain repair area; mini-excavator utilized to pull back stone for better visualization of the size of the void between the existing bulkhead and the newly installed 42" OD/ 36" ID pipe.



Comments: 2. Block D storm drain repair area; size of void between the existing bulkhead and the 42" OD / 36 ID" pipe is approximately 2.5".

Photos of Select Daily Activities (continued)

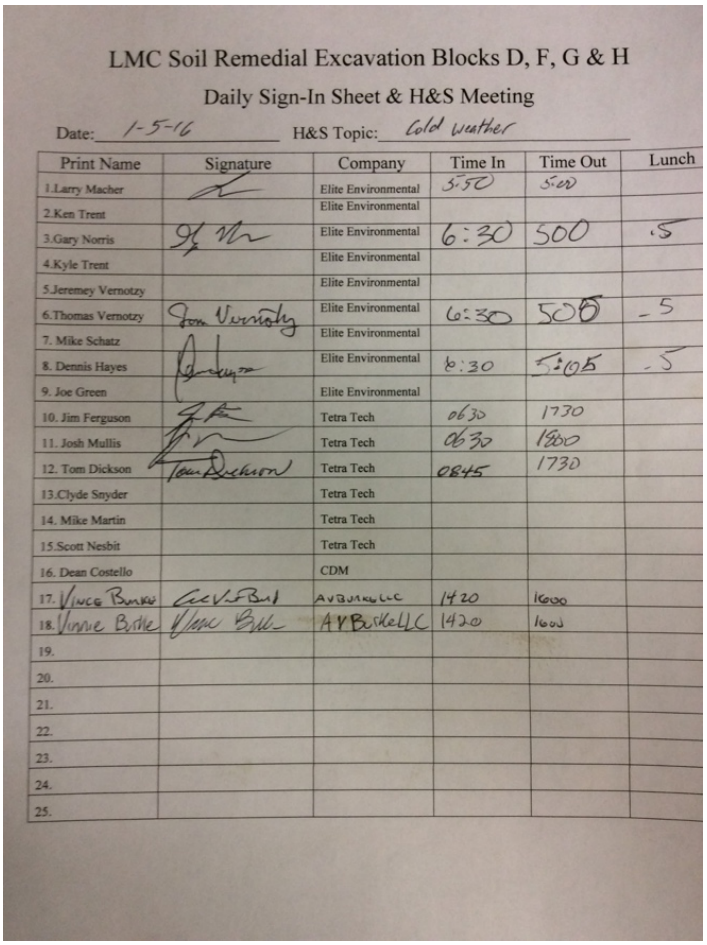


Comments: 3. Roller utilized to compact the backfilled Block F UST pipe excavation area.



Comments: 4. Block D storm drain repair area; AV Burke LLC surveying excavation limits.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 1-5-16 H&S Topic: Cold weather

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:50	5:00	
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	500	.5
4.Kyle Trent		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental			
6.Thomas Vernotzy		Elite Environmental	6:30	500	.5
7. Mike Schatz		Elite Environmental			
8. Dennis Hayes		Elite Environmental	6:30	5:05	.5
9. Joe Green		Elite Environmental			
10. Jim Ferguson		Tetra Tech	0630	1730	
11. Josh Mullis		Tetra Tech	0630	1800	
12. Tom Dickson		Tetra Tech	0845	1730	
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17. Vince Burke		AV Burke LLC	1420	1600	
18. Vinnie Burke		AV Burke LLC	1420	1600	
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Construction Manager

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	January 11, 2016	Start Work at:	6:30 AM	Depart Site at:	4:30 PM

Weather Conditions

Temperature (°F):	30 to 40	Skies:	Partly Cloudy	Wind:	Light	Precipitation:	None

Weather Comments: Partly cloudy, cool, winds out of west-northwest.

Summary of Work/Major Activities

1. Pumped water in FTB excavation Area VS-1 to Block G frac-tank.
2. Collected verification sample G-VS-1-3-11116, logged and prepped sample for shipment (COC#016113) to Test America Labs in North Canton, Ohio.
3. Following collection of verification sample, V. Burke of A.V. Burke LLC surveyed limits of VS-1 excavation area at completion of survey, excavation was backfilled with select fill and compacted.
4. Began a low tide cycle which permitted Elite staff to perform additional work on the outfall related to extension of the 36" discharge pipe through the outfall. Removed stone which had sloughed through the gap between the bulkhead and the discharge pipe.

Personnel On-Site

Name:		Company:	
Name:	J. Ferguson	Company:	Tetra Tech
Name:	T. Apanavage	Company:	Tetra Tech
Name:	L. Macher	Company:	Elite Env.
Name:	D. Hayes	Company:	Elite Env
Name:	G. Norris	Company:	Elite Env.
Name:	J. Vernotzy	Company:	Elite Env.
Name:	T. Vernotzy	Company:	Elite Env.
Name:	D. Hayes	Company:	Elite Env.
Name:	V. Burke	Company:	AV Burke LLC
Name:		Company:	
Name:		Company:	
Name:		Company:	
Name:		Company:	

Health & Safety Topics or Issues

1. Discussed weather related issues (exposure, hydration).
2. Discussed procedures for placing backfill.

QC Procedures/Inspections/Testing to be Performed Today

1. Monitor excavation of soil around VS-1 with PID.
2. Monitor atmosphere around excavation areas.
3. Collect confirmatory sample from VS-1.

Completed Week Schedule

1. Conduct daily inspections of Block G, F and D water front areas (1/4, ongoing).
2. Pump water from FTB excavation VS-1 to frac-tank (1/11).
3. Collect verification sample from 3' interval at FTB VS-1 location and ship sample to Test America Laboratory in North Canton, Ohio (1/11).
4. Backfilled FTB VS-1 excavation Area with select fill (1/11).
5. AV Burke LLC surveyor surveys the limits of FTB are VS-1(1/11).
6. Decontamination of frac tanks in Blocks D/G.
7. Remove decon water, and waste water originating in Blocks D and G for treatment and disposal at Clean Harbors, Baltimore Facility.
8. Continue to work on 36" discharge pipe pass through during low tide cycles.
9. Demobilization of rain for rent frac-tanks.

Photos of Select Daily Activities

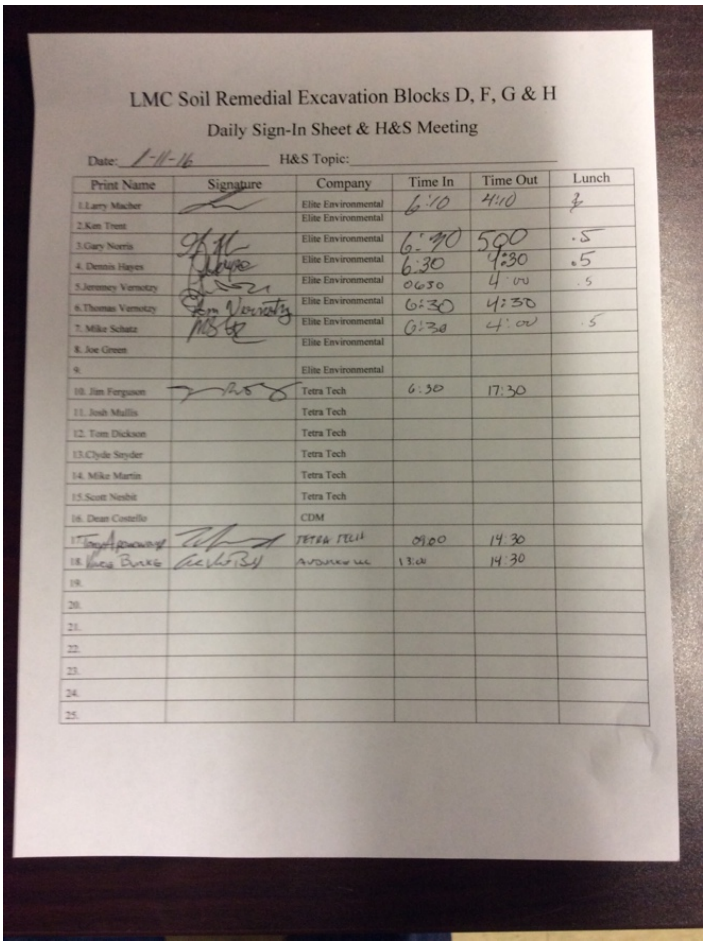


Comments: 1. Groundwater which accumulated in Excavation Area VS-1.



Comments: 2. Low tide and winds out of the northwest expose 36" ID storm water pipe.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 1-11-16 H&S Topic:

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	6:10	4:10	½
2.Ken Trent		Elite Environmental			
3.Gary Norris		Elite Environmental	6:30	5:00	.5
4. Dennis Hayes		Elite Environmental	6:30	9:30	.5
5.Jeromey Vernotzy		Elite Environmental	0630	4:00	.5
6.Thomas Vernotzy		Elite Environmental	6:30	4:30	
7. Mike Schatz		Elite Environmental	6:30	4:00	.5
8. Joe Green		Elite Environmental			
9.		Elite Environmental			
10. Jim Ferguson		Tetra Tech	6:30	17:30	
11. Josh Mullis		Tetra Tech			
12. Tom Dickson		Tetra Tech			
13.Clyde Snyder		Tetra Tech			
14. Mike Martin		Tetra Tech			
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17.		TETRA TECH	0900	14:30	
18.		ARDURRA	13:00	14:30	
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Construction Manager

Submitted by:

TETRA TECH, INC.

DAILY CONSTRUCTION REPORT
Middle River Complex
Soil Remediation Blocks D, D Panhandle, F, G, and H

Duration of Site Activities

Date:	March 24, 2016	Start Work at:	7:00 AM	Depart Site at:	5:30 PM

Weather Conditions

Temperature (°F):	60 to 70	Skies:	Clear	Wind:	Light	Precipitation:	None
Weather Comments:							

Summary of Work/Major Activities

1. Operations and Safety meeting:
2. Continue restoration efforts at Block D Panhandle.
3. Continue restoration efforts at Block G.
4. Elite personnel offsite at 1545.
5. Tetra Tech offsite at 1730.

Personnel On-Site

Name:		Company:	
Name:	Mike Martin	Company:	Tetra Tech
Name:	Tom Dickson	Company:	Tetra Tech
Name:	Ken Trent	Company:	Elite Environmental
Name:	Larry Macher	Company:	Elite Environmental
Name:	Jeremy Vernotzy	Company:	Elite Environmental
Name:	Thomas Vernotzy	Company:	Elite Environmental
Name:	Mike Schatz	Company:	Elite Environmental
Name:		Company:	
Name:		Company:	
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Name:		Company:	
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Name:		Company:	

Health & Safety Topics or Issues

1. Body positioning - the collection of the riprap, removal of incidental soils and hand placement in the drainage swale in Block G can result in soft muscle injury. Control measures include:
   A. Stretch and limber before conducting task.
   B. Dump near the person placing the stones, they can gather from the pile to place.
   C. If it is necessary to hand toss remove personnel from the landing area, toss the stone then the person placing may re-enter the swale to place the stones as desired.
   D. Rotate work activities to provide rest breaks and prevention of cumulative trauma disorders.

Pinch points - to minimize these types of injuries personnel shall
   A. Wear work gloves when handling the stone.
   B. Do not attempt to toss and catch to place.
   C. Workers shall spreadout to minimize striking someone else during placement.

QC Procedures/Inspections/Testing to be Performed Today

1. Visual examination of the finished effort; onsite supervision of field staff.

Completed Week Schedule

1. Restoration efforts Block D - Panhandle
   A. Grade and compact gravel cover.
   B. Modify and direct overland drainage pattern to designated swale and filtration bed.
   C. Remove as much gravel as is possible from Darkhead Cove to minimize flow disruption.

2. Remove and transport riprap from Block F to Block G. The riprap was removed from the drainage containment from the west southwest side of Block F and the hole backfilled; compacted; seeded; and covered in curlex (nailed down). The hole would have to be abandoned and backfilled as part of the removal of erosion and sediment controls measures in this area. It was determined as a cost saving measure, the removal and relocation of the riprap to be used in Block G Drainage swale was a more palatable solution rather than burying it with select fill.

3. Block G - the top of the drainage swale was cut to allow the fabric to be tucked in and buried to avoid overland flow possibly getting under the fabric once installed. No additional work was conducted in this area.

Photos of Select Daily Activities



Comments:

The photo shows the coupling attaching the permanant pipewith the extension piece through the bulkhead.



Comments:

Gravel backfill around the repaired pipe.

Photos of Select Daily Activities (continued)

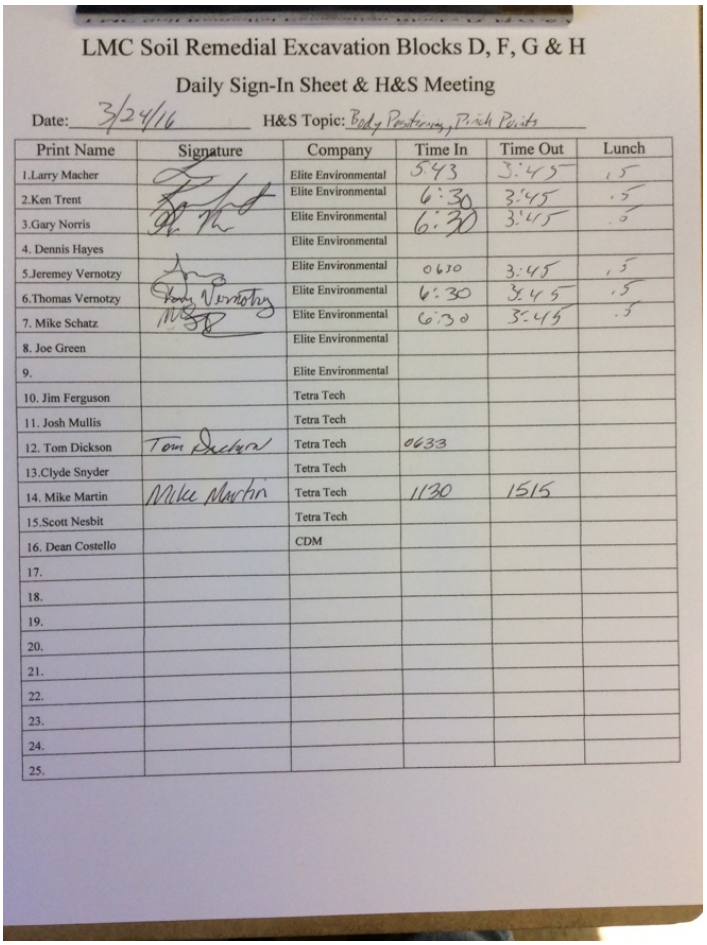


Comments: This photo illustrates the placement of geotextile and larger riprap at the bulkhead penetration.



Comments: Block D Panhandle Drainage Swale repair area restored to grade.

Safety Sign-In Sheet



LMC Soil Remedial Excavation Blocks D, F, G & H

Daily Sign-In Sheet & H&S Meeting

Date: 3/24/16 H&S Topic: Body Positioning, Pinch Points

Print Name	Signature	Company	Time In	Time Out	Lunch
1.Larry Macher		Elite Environmental	5:43	3:45	.5
2.Ken Trent		Elite Environmental	6:30	3:45	.5
3.Gary Norris		Elite Environmental	6:30	3:45	.5
4. Dennis Hayes		Elite Environmental			
5.Jeremey Vernotzy		Elite Environmental	0630	3:45	.5
6.Thomas Vernotzy	Tom Vernotzy	Elite Environmental	6:30	3:45	.5
7. Mike Schatz		Elite Environmental	6:30	3:45	.5
8. Joe Green		Elite Environmental			
9.		Elite Environmental			
10. Jim Ferguson		Tetra Tech			
11. Josh Mullis		Tetra Tech			
12. Tom Dickson	Tom Dickson	Tetra Tech	0633		
13.Clyde Snyder		Tetra Tech			
14. Mike Martin	Mike Martin	Tetra Tech	1130	1515	
15.Scott Nesbit		Tetra Tech			
16. Dean Costello		CDM			
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					

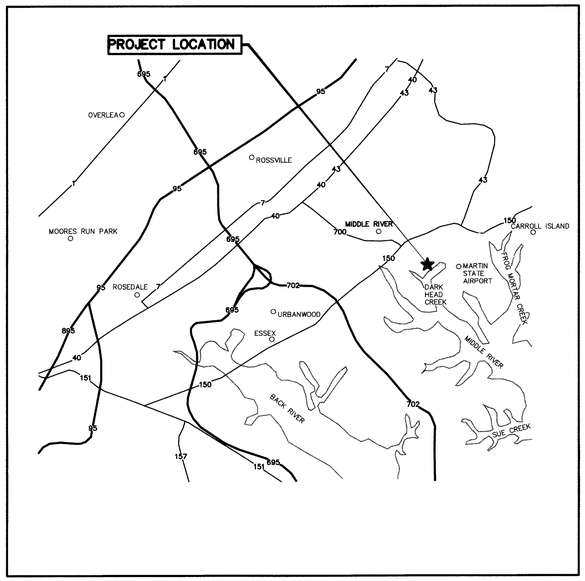
Submitted by:

Thomas M Dickson

APPENDIX B— REGULATORY PERMITS, APPROVALS, AND SITE SETUP DOCUMENTATION

REGULATORY PERMITS AND APPROVALS

GRADING AND EROSION AND SEDIMENT CONTROL PLAN FOR SOIL REMEDIAL ACTION LOCKHEED MARTIN MIDDLE RIVER COMPLEX MIDDLE RIVER, MARYLAND



PROJECT VICINITY MAP
NOT TO SCALE

DRAWING INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES, GRADING NOTES, AND LEGEND
C-1	FACILITY WIDE EXISTING CONDITIONS
C-2	BLOCK D – EXISTING CONDITIONS
C-3	BLOCK D PANHANDLE – EXISTING CONDITIONS
C-4	BLOCK F – EXISTING CONDITIONS
C-5	BLOCK G – EXISTING CONDITIONS (SHEET 1 OF 2)
C-6	BLOCK G – EXISTING CONDITIONS (SHEET 2 OF 2)
C-7	BLOCK H – EXISTING CONDITIONS
C-8	EROSION AND SEDIMENT CONTROL NOTES
C-9	BLOCK D – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-10	BLOCK D PANHANDLE – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-11	BLOCK F – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-12	BLOCK G – GRADING AND EROSION & SEDIMENT CONTROL PLAN (SHEET 1 OF 2)
C-13	BLOCK G – GRADING AND EROSION & SEDIMENT CONTROL PLAN (SHEET 2 OF 2)
C-14	BLOCK H – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-15	EROSION AND SEDIMENT CONTROL DETAILS (SHEET 1 OF 3)
C-16	EROSION AND SEDIMENT CONTROL DETAILS (SHEET 2 OF 3)
C-17	EROSION AND SEDIMENT CONTROL DETAILS (SHEET 3 OF 3)
C-18	SEEDING SPECIFICATIONS



MIDDLE RIVER, MARYLAND, GOOGLE EARTH 2013

PROJECT LOCATION MAP
SCALE: 1"=1000'

DATUM:
HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL= NAVD 88

0 1000 2000
SCALE IN FEET

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY
APPROVED FOR GRADING
EMB 4/24/15
4/24/15
Date

STORMWATER MANAGEMENT PERMIT NOT REQUIRED

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT
APPROVED FOR SEDIMENT CONTROL 4-23-15
DATE
Jeffrey P. West
DISTRICT OFFICIAL
050-37JK6-15
PLAN NO.
TECHNICAL REVIEW FOR THE DISTRICT BY:
Dave Bachman
IF A GRADING PERMIT HAS NOT BEEN OBTAINED WITHIN TWO YEARS OF THIS APPROVAL, THIS PLAN SHALL BE RE-SUBMITTED TO THE DISTRICT.

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

STATE OF MARYLAND
SCOTT A. NESHIP
No. 20015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
TITLE SHEET

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 20

COPYRIGHT TETRA TECH INC.

T-1

K:\CADD\MRC\CIVIL\T-1.dwg PIT IVANNA.GOLDSBERRY 3/24/2015 2:55:19 PM

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101 • www.mde.maryland.gov

Larry Hogan
Governor

Boyd Rutherford
Lieutenant Governor

Ben Grumbles
Secretary

Date of Permit Issuance: 5/6/2015

Lockheed Martin Corporation
6801 Rockledge Drive
MP:CCT-246
Bethesda, Maryland 20817

RE: **MDRCC01CX**

Dear Mr. Thomas Blackman:

Please find enclosed documentation of coverage under the 2014 General Permit for Stormwater Associated with Construction Activity (MDRC) for:

MRC Blocks D,F,G, and H Soil Remediation

issued to

Lockheed Martin Corporation

Please note that the effective date of coverage under the General Permit is the date on the attached cover sheet. If the current erosion and sediment control plan approval covers only part of the entire site covered by this permit, be advised that this permit does not authorize discharges from the other portions of the site until the appropriate erosion and sediment control approval authority approves the erosion and sediment control plan for those portions. The permit also requires that the site have an approved stormwater management plan (unless exempt or waived by the stormwater approval authority) prior to earth disturbance. Part IV.C.3 of the permit requires the permittee to use the standard written report form as provided by MDE. The form is available on MDE's website at the following location both as a fillable Microsoft Word form and as an Adobe Acrobat file.

http://go.usa.gov/gFMW

Print this letter and the cover sheet and keep them with your permit file. In addition, download the 2014 General Permit from the above website, print it for your permit file, and refer to it to ensure compliance with its terms. Submit any modifications to this coverage, Transfers of Authorization, or Notices of Termination via the ePermits portal. If your contact information changes, update it through the ePermits portal.

Your cooperation in this matter is appreciated. If you have any questions, please call the administrative team for the General Permit at (410) 537-3019.

Sincerely,

Heather L. Nelson

Heather L. Nelson, Acting Director
Compliance Program
Water Management Administration

GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY

State Discharge Permit Number:	**Effective Date:** 5/6/2015
MDRCC01CX	**Expiration Date:** 12/31/2019
	NOTE: If site work is complete per Part II. I. prior to the expiration date, the permittee must submit a Notice of Termination and terminate the permit.

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and the provisions of the Clean Water Act, 33 U.S.C., Section 1251 et. seq., and implementing regulations 40 CFR Parts 122, 123, 124 and 125, the Department of the Environment hereby establishes conditions and requirements pertinent to stormwater associated with construction activity at the site described below and authorizes:

Lockheed Martin Corporation
6801 Rockledge Drive
MP:CCT-246
Bethesda, Maryland 20817

TO DISCHARGE STORMWATER FROM:

MRC Blocks D,F,G, and H Soil Remediation
construction project on
2.15 acres
at property located at
Tax Blocks D, F, G, and H within Lockheed Martin Corporation's Middle River Complex (MRC)
2323 Eastern Boulevard, Middle River, Maryland 21220

If the current erosion and sediment control plan approval covers only part of the entire site covered by this permit, this permit does not authorize discharges from the other portions of the site until the appropriate erosion and sediment control approval authority approves the erosion and sediment control plan for those portions.

TO:
Surface waters -- Cow Pen Creek and Dark Head Cove

which is
Waters protected for Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting

in accordance with the 2014 General Permit. The vicinity map submitted with the Notice of Intent is considered incorporated herein and made a part hereof.

TETRA TECH

F
COE
DLH

RECEIVED
NOV 18 2013
BY:

November 15, 2013

201305256

Ms. Beth Cole
Maryland Historical Trust
Maryland Department of Planning
100 Community Place
Crownsville, MD 21032

Dear Ms. Cole:

This letter is to request Maryland Historical Trust (MHT) project review for the Lockheed Martin soil remediation project in Blocks D, E, F, G and H at the Middle River property located in Baltimore County, Maryland (see attached Figures 1 and 2). The purpose of the soil remediation in Blocks D, E, F, G and H is to reduce the levels of contaminants of concern (COCs) in existing soils to meet standards under Maryland Department of the Environment's (MDE's) Controlled Hazardous Substances Program.

Activities proposed for the soil remediation work include excavation and removal of approximately 3,884 cubic yards (cy) of overlying soil in Block D (including 579 cy in the panhandle portion of Block D), 9,837 cy in Block E, 912 cy in Block F, 1,645 cy in Block G, and 332 cy in Block H (see Figure 3). The soil remediation work will also include removal of existing impervious pavement/concrete in Block E and the panhandle portion of Block D. Volume estimates of soil to be excavated in each block are currently preliminary and may be revised. Excavated soil and pavement/concrete will be loaded in trucks on-site and taken to an appropriate disposal facility or will be recycled.

Middle River

Additional activities proposed for the soil remediation work will include the removal of the floor drains in the Block E basement foundation, and the removal and relocation of the storm drain system in Block E. The new storm drain system will be designed based on the final grading plan selected for the site.

All excavated areas, including areas of pavement/concrete, will be replaced with in-kind clean fill material and topsoil and revegetated, Excavated areas in Blocks D, F, G, and H will be graded back to original contours; however, Block E is expected to be graded to drain with a minimum 2% grade.

Other areas of ground disturbance will include truck traffic and staging areas, as well as E&S control locations. These areas will be graded back to original contours.

Archeo
DLH
12/9/13
2ma

prior recent
200904457
201204955
2ma

w/in BA - 2031

The Maryland Historical Trust has determined that this undertaking will have no adverse effect on historic properties.
Dixie Henry Date 12/9/13

Tetra Tech, Inc.
20251 Century Blvd., Suite 200, Germantown, MD 20874-7114
Tel 301.528.5557 Fax 301.528.3000 www.tetratech.com

TETRA TECH

Standard best management practices will be employed during all work at the site, including seeding all exposed areas with a standard seed mix, restoring wetland areas as appropriate, following an approved erosion and sediment control plan, and obtaining a Construction General Permit for construction stormwater runoff.

Expected federal and state permits include a United States Army Corps of Engineers (USACE) Section 404 Maryland State Programmatic General Permit for minor work in wetlands, an Erosion/Sediment Control Approval from the Baltimore County Soil Conservation District, a site Grading Permit from Baltimore County Department of Environmental Protection and Sustainability, and a General Permit for Construction Activity (Stormwater) from MDE.

Included with this request is the MHT Project Review Form. I appreciate your input on this matter and if you have any questions or need additional information please contact me at (301) 528-3022.

Sincerely,

Michael Martin, PG
Regional Manager
Tetra Tech, Inc.

cc:
Tom Blackman, Lockheed Martin Corporation
Cannon Silver, CDM Smith
Laura Burbage, CDM Smith

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Joseph P. Gill, Secretary
Frank W. Dawson III, Deputy Secretary

December 18, 2013

Michael Martin
Tetra Tech
20251 Century Blvd., Suite 200
Germantown, MD 20874-7114

RE: Environmental Review for Lockhead Martin property, jct. of Eastern Blvd and Wilson Point Rd., Middle River, soil remediation project, Blocks D, E, F, G, and H, Baltimore County, MD.

Dear Mr. Martin:

The Wildlife and Heritage Service has determined that there are no State or Federal records for rare, threatened or endangered species within the boundaries of the project site as delineated. As a result, we have no specific comments or requirements pertaining to protection measures at this time. This statement should not be interpreted however as meaning that rare, threatened or endangered species are not in fact present. If appropriate habitat is available, certain species could be present without documentation because adequate surveys have not been conducted.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2013.1738.ba

KEVIN KAMENETZ
County Executive

VINCENT J. GARDINA, *Director*
Department of Environmental Protection and Sustainability

Stormwater Management

410-887-3768
FAX 410-887-4804

July 23, 2014

Mr. Paul Myers
Tetra Tech, Inc.
20251 Century Blvd, Suite 200
Germantown, MD 20874-7114

RE: LOCKHEED MARTIN MIDDLE RIVER COMPLEX
Soil Remediation In Blocks D, F, G & H
Stormwater Management Variance
Middle River Watershed
EPS Project I.D. M140086
EPS Tracking Number: 07-14-1848

Dear Mr. Myers:

This office has reviewed the information submitted and finds that a stormwater management variance can be granted for this project under Section 33-4-113 (a) (2) of Title 4 of the Baltimore County Code. This section of the regulations allows a stormwater management variance to be granted if there are exceptional circumstances such that strict adherence to the provisions of this article would result in unreasonable hardship or practical difficulty and not fulfill the intent of the regulations. The proposed project is for the removal of contaminated soil and replacing it with clean soil. The existing grades will be reestablished once the contaminated soil is removed. There will be a reduction in impervious area as a result of this project. Since there will be a slight reduction in impervious area and water quality will be improved by the removal of contaminated soil, a stormwater management variance can be granted for this project.

Please contact Ed Schmaus of my staff at 410-887-3768 should you have any questions.

Very truly yours,

Thomas L. Vidmar, P.E., Deputy Director
Department of Environmental Protection
& Sustainability

TLV:jcm

variance approval letter private

From: Myers, Paul
To: Goldsberry, Ivanna
Subject: Fw: Lockheed Martin Middle River Remediation
Date: Monday, March 07, 2016 1:14:42 PM

Paul Myers
Senior Environmental Scientist

paul.myers@tetratech.com | www.tetratech.com

Tetra Tech | Complex World, Clear Solutions™
288 Dexter Road | Garland, Maine 04939
Direct: 207-299-0594

From: Regina Esslinger <resslinger@baltimorecountymd.gov>
Sent: Wednesday, January 29, 2014 9:41 AM
To: Myers, Paul
Cc: Patricia Farr; Thomas Vidmar
Subject: Lockheed Martin Middle River Remediation

Paul,

I have received your variance application for the soil remediation proposed at Lockheed Martin's Middle River Complex. In reviewing the proposal, this Department has determined that a variance is not necessary for the remediation work, including the work within the wetlands and buffer. As with the prior remediation work, we will not apply the Critical Area regulations to the site until such time as it is proposed for redevelopment. We will see the sediment control plans you submit to the County as part of this Department's review process.

Thank you for providing this information and keeping us apprised on the ongoing work.

Sincerely,

Regina A. Esslinger, Supervisor
Environmental Impact Review
Balto Co Dept of Environmental Protection & Sustainability
111 W. Chesapeake Avenue, Room 319
Towson, MD 21204
Phone: 410-887-3980
Fax: 410-887-4804

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101 • www.mde.maryland.gov

Larry Hogan
Governor

Boyd Rutherford
Lieutenant Governor

Ben Grumbles
Secretary

August 27, 2015

Lockheed Martin Corporation
c/o Tetra Tech, Inc
661 Anderson Drive
Attention: Scott Nesbit
Pittsburgh, PA 15220

Re: Agency Interest Number: 138775
Tracking Number: 201560745
Tidal Authorization Number: 15-GL-0408

Dear Lockheed Martin Corporation:

Your application to alter tidal wetlands has been evaluated by the Tidal Wetlands Division. Your State wetlands license or permit authorizing work in tidal wetlands is attached. Please take a moment to read and review your authorization to ensure that you understand the limits of the authorized work and all of the general and special conditions.

Your project qualifies for federal approval under the Maryland State Programmatic General Permit (MDSPGP), that permit is also attached. You should not begin any work until you have obtained all necessary State, local, and federal authorizations.

This State authorization is a final agency decision; there is no further opportunity for administrative review. Any person with standing, who is either the applicant or who participated in the public participation process through the submission of written or oral comments, may petition for judicial review in the circuit court in the county where the authorized activity will occur. The petition for judicial review must be filed with the court within 30 days of receipt of this decision. Please contact Robert Rushlow at Robert.Rushlow@maryland.gov or 410-537-4023 with any questions.

Sincerely,

Robert Tabisz, Acting Chief
Tidal Wetlands Division

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
GENERAL TIDAL WETLANDS LICENSE

LICENSE NUMBER: **15-GL-0408**
EFFECTIVE DATE: **August 27, 2015**
EXPIRATION DATE: **August 26, 2018**
LICENSEE: **Lockheed Martin Corporation**
ADDRESS: **Attn: Tom Blackman 2323 Eastern Blvd**
Middle River, Maryland 21220
PROJECT LOCATION: **2323 Eastern Boulevard**
Middle River, MD 21220
Dark Head Creek in Baltimore

PURSUANT TO THE AUTHORITY OF THE BOARD OF PUBLIC WORKS, TITLE 16 OF THE ENVIRONMENT ARTICLE, ANNOTATED CODE OF MARYLAND, AND CODE OF MARYLAND REGULATIONS 26.24 AND 23.02.04, **Lockheed Martin Corporation** ("LICENSEE") IS AUTHORIZED BY THE WATER MANAGEMENT ADMINISTRATION ("ADMINISTRATION") TO CONDUCT THE FOLLOWING REGULATED ACTIVITY IN STATE TIDAL WETLANDS, IN ACCORDANCE WITH THE CONDITIONS OF THIS LICENSE AND THE ATTACHED REVISED PLANS DATED **July 17, 2015**, PREPARED BY **Tetra Tech**, AND APPROVED BY THE ADMINISTRATION'S TIDAL WETLANDS DIVISION ON **August 27, 2015**, AND INCORPORATED HEREIN:

1. Emplace a 36 inch diameter outfall pipe that encroaches one foot channelward from an existing bulkhead .
2. Repair an existing bulkhead from the upland side of the structure.

All work is to be completed within a maximum of one foot channelward of the mean high water line.

SPECIAL CONDITIONS

A. A turbidity curtain shall be installed and maintained channelward of the area where bulkhead repair is being conducted during excavation and backfilling operations.

GENERAL CONDITIONS

A. The Maryland Department of the Environment has determined that the proposed activities comply with, and will be conducted in a manner consistent with the State's Coastal Zone Management Program, as required by Section 307 of the Federal Coastal Zone Management Act of 1972, as amended.

B. The Licensee shall comply with all Critical Area requirements and obtain all necessary authorizations from local jurisdiction. This License does not constitute authorization for disturbance in the 100-foot Critical Area Buffer. "Disturbance" in the Buffer means clearing, grading, construction activities, or

removal of any size of tree or vegetation. Any anticipated Buffer disturbance requires prior written approval, before commencement of land disturbing activity, from local jurisdiction in the form of a Buffer Management Plan.

C. If the authorized work is not performed by the property owner, all work performed under this Tidal Wetlands License shall be conducted by a marine contractor registered with the Maryland Department of the Environment in accordance with Chapter 286 of the 2010 Laws of Maryland. A list of registered marine contractors can be obtained by contacting the Department at 410-537-3249 or by e-mail at MDE.MCLB@maryland.gov.

D. The Licensee certifies real property interest in the contiguous upland.

E. This License does not relieve the Licensee from the responsibility of obtaining all necessary federal, State and local government authorizations.

F. The Licensee shall obtain an approved sediment and erosion control plan from the local soil conservation district when the area disturbed is greater than 5000 square feet or 100 cubic yards of fill.

G. The Licensee shall ensure that a copy of this License, including the approved plans, is available at the site until the authorized work is complete.

H. The Licensee shall make every reasonable effort to design and construct the structure or perform the activity authorized in this License in a manner which minimizes adverse impacts on natural resource values, including water quality, plants, wildlife, plant and wildlife habitat, and on historic property values.

I. The Secretary of the Environment may suspend or revoke a License if the Secretary finds that the Licensee has not complied with any condition or limitation in the License or has exceeded the scope of the authorized activities.

J. The Licensee shall indemnify, defend and hold harmless the State of Maryland, its officials, officers, and employees from and against any and all liability, suits, claims and actions of whatever kind, caused by or arising from the work authorized by the License.

K. The Licensee acknowledges that this License does not transfer any property interest in State tidal wetlands. This License allows the Licensee to use State tidal wetlands only for the structure or activity authorized herein and in no way limits the use of waters of the State by the public.

L. This License is valid only for use by the Licensee. Permission for transfer of the License shall be obtained from the Water Management Administration, Tidal Wetland Division. The terms and conditions of this License shall be binding on any assignee or successor in interest of the License.

M. The Licensee shall allow representatives of the Maryland Department of the Environment to inspect the authorized activities.

N. The Licensee shall notify the Maryland Department of the Environment, Water Management Administration, Compliance Program at least 10 day before starting the authorized activities at (410) 537-3510.

O. The Licensee shall complete construction of the activity authorized under this License by the expiration date, otherwise a new General License shall be obtained.

P. Upon completion of the authorized activities, the Licensee shall notify the Maryland Department of the Environment, Water Management Administration, Compliance Program at (410) 537-3510.

By authority of the Secretary of the Environment:

Robert Tabisz, Acting Chief
Western Region
Tidal Wetlands Division

August 27, 2015
Date

Tracking Number: 201560745
Agency Interest Number: 138775

Enclosure: Revised Plans dated July 17, 2015.
cc: WMA Inspection & Compliance Program

bing Maps

15-GL-0408
Lockheed Martin Corporation

On the go? Use **m.bing.com** to find maps, directions, businesses, and more





LOCKHEED MARTIN CORP
15-GL-0408
201560745 SHT 1 of 4
AI 138775
REVISED 7/17/15



LEGEND:

EXISTING FEATURES:

- EXISTING FENCE
- EXISTING STORM DRAIN
- EXISTING INLET

FEATURES ASSOCIATED WITH THE REPAIRS:

- TC — TURBIDITY CURTAIN
- STORM DRAIN PIPE TO BE REPLACED
- STORM DRAIN REPAIR AREA: APPROXIMATELY 450 SQUARE FEET AND 150 CUBIC YARDS
- BULKHEAD REPAIR AREA: APPROXIMATELY 600 SQUARE FEET AND 250 CUBIC YARDS

SECTION VIEW OF THE STORM REPAIR THROUGH THE EADCAN BE FOUND ON FIGURE 3.

SS SECTION VIEW OF THE EAD SINKHOLE BACKFILL DETAIL E FOUND ON FIGURE 4.

TETRA TECH
20251 CENTURY BLVD SUITE 200
GERMANTOWN, MD 20874
T: (301) 528-5552
F: (301) 528-3000

MARK	DATE	DESCRIPTION

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

BLOCK D AND D PANHANDLE
BULKHEAD AND STORN DRAIN REPAIR

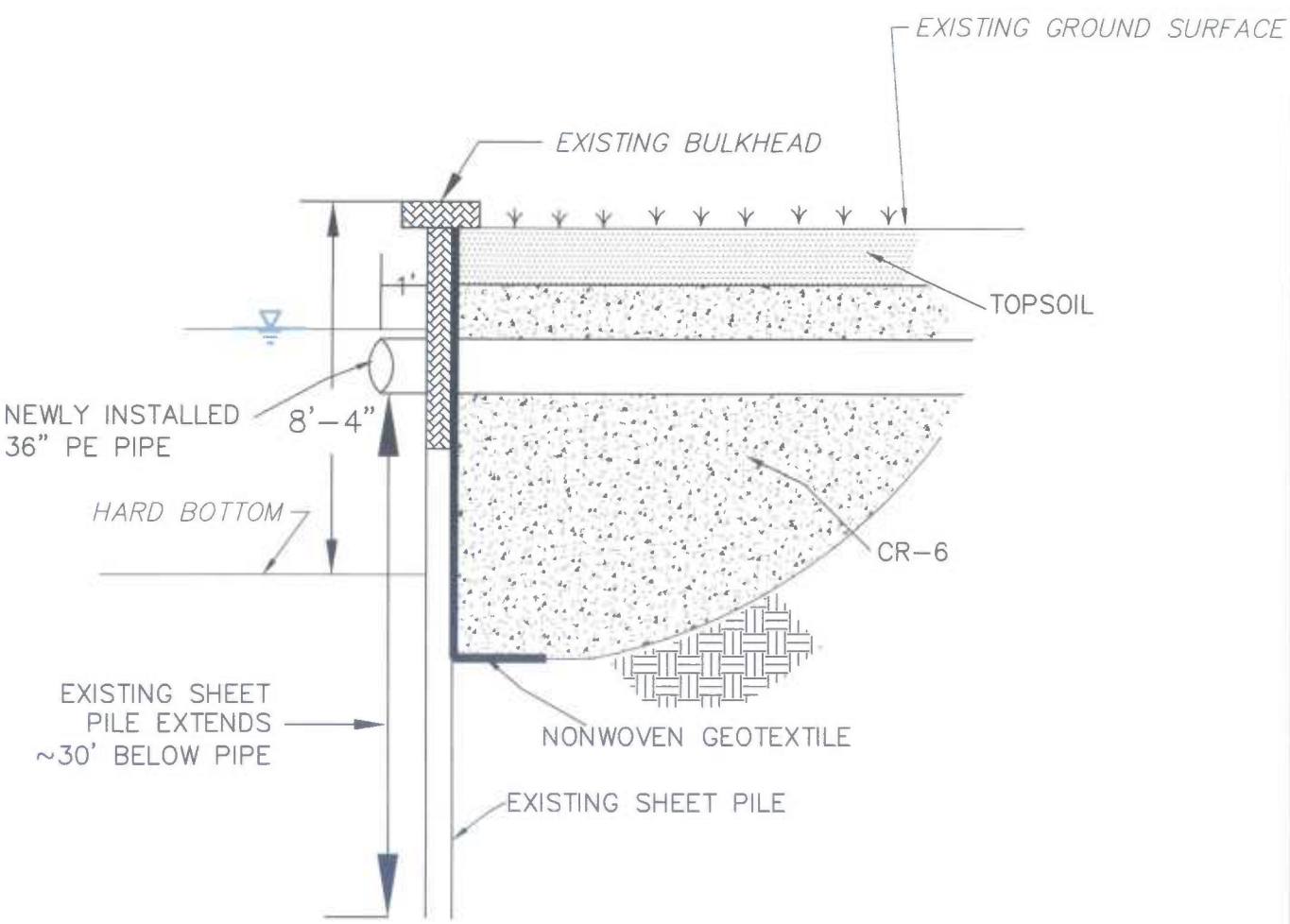
DATE:	04/10/2015
PROJECT NO.:	
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	PM
SHEET:	OF

COPYRIGHT TETRA TECH INC.

FIGURE 2

SHT 2 of 4

15-GL-0408
2015 GOALS
AI 138775
REVISED 7/17/15



CROSS SECTION
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. CR-6 WILL HAVE COMPRESSIVE STRENGTH OF 50 TO 100 PSI.
2. CR-6 WILL BE PLACED IN MAX 12-INCH LIFTS. THE NEXT LIFT WILL NOT BE PLACED UNTIL THE UNDERLYING LIFT IS STRONG ENOUGH TO HAVE A ONE FOOT VERTICAL FACE UNDER LOAD OF THE NEXT LIFT (I.E. APPROXIMATELY 2 PSI OR 288 PSF OF COMPRESSIVE STRENGTH).
3. BOTTOM OF THE EXCAVATION LIMIT NEAR THE SHEET PILE WILL BE 3 FEET HORIZONTAL OR SLOPING AWAY FROM THE SHEET PILE.
4. 36" PE PIPE WILL BE PLACED IN EXISTING HOLE IN THE BULKHEAD.

TETRA TECH
20251 CENTURY BLVD SUITE 200
GERMANTOWN, MD 20874
T: (301) 528-5552
F: (301) 528-3000

MARK	DATE	DESCRIPTION

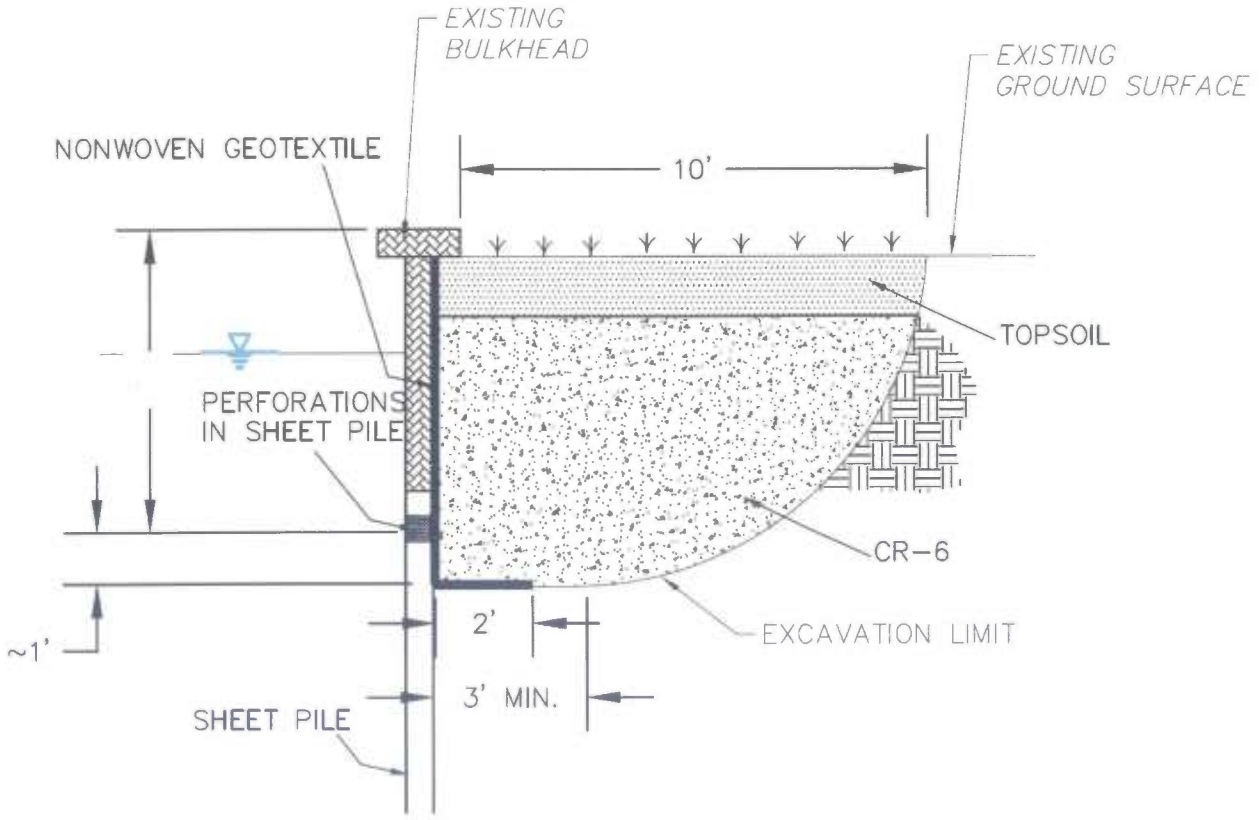
LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

STORM DRAIN PIPE REPAIR DETAIL

DATE:	07/17/2015
PROJECT NO.:	
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	PM
SHEET	OF

15-GL-0408
201560745
AI 138775
REVISED 7/17/15

SHT 3 & 4



CROSS SECTION

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. CR-6 WILL HAVE COMPRESSIVE STRENGTH OF 50 TO 100 PSI.
2. CR-6 WILL BE PLACED IN MAX 12-INCH LIFTS. THE NEXT LIFT WILL NOT BE PLACED UNTIL THE UNDERLYING LIFT IS STRONG ENOUGH TO HAVE A ONE FOOT VERTICAL FACE UNDER LOAD OF THE NEXT LIFT (I.E. APPROXIMATELY 2 PSI OR 288 PSF OF COMPRESSIVE STRENGTH).
3. BOTTOM OF THE EXCAVATION LIMIT NEAR THE SHEET PILE WILL BE 3 FEET HORIZONTAL OR SLOPING AWAY FROM THE SHEET PILE.

15-GL-0408
20156074S
AI 138775

TETRA TECH
20251 CENTURY BLVD SUITE 200
GERMANTOWN, MD 20874
T: (301) 528-5552
F: (301) 528-3000

MARK	DATE	DESCRIPTION

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SINKHOLE BACKFILL DETAIL

SHT 4 of 4

DATE:	04/01/2015
PROJECT NO.:	
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	PM
SHEET:	OF

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FIGURE 4

REVISED 7/17/15

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

IMPORTANT INFORMATION ABOUT YOUR PROJECT

Corps Permit Tracking No.: 201560745 Date: August 27, 2015

Permittee/Project Name: Lockheed Martin Corp. MDSPGP-4 Category and Activity No.: A-e8

Dear Applicant:

The U. S. Army Corps of Engineers, Baltimore District, has determined that the proposed work meets the enclosed terms and conditions of the Maryland State Programmatic General Permit-4 (MDSPGP-4). A requisite of permit issuance requires that the applicant comply with any specific terms and conditions associated with the authorized project (conditions enclosed). This MDSPGP-4 verification is provided pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. If any of the information contained in your application and/or plans is later found to be in error, the MDSPGP-4 authorization for your project may be modified, suspended, or revoked.

As a condition of the MDSPGP-4 authorization, you, the permittee, are required to complete and sign the **enclosed** Compliance Self-Certification Form regarding the completed work and any required mitigation. The signed form should be returned to the Regulatory Branch at the above address **within 60 days** following completion of the authorized work and any required mitigation.

Please be aware that the terms and conditions of this permit will continue to be binding on the new property owner(s) if structures or work authorized by this permit exist at the time of ownership transfer of the associated property. Although the construction period for work authorized by this MDSPGP-4 is finite, the permit itself, with its limitations, does not expire. To validate the transfer of this permit and the legal responsibility to comply with its terms and conditions, the transferee (new owner) must provide the Corps a mailing address and telephone number along with their signature and date in the space provided below and mail a copy to the above address.

Your MDSPGP-4 authorization is valid until September 30, 2016 unless the permit is modified, reissued, or revoked. You must remain informed of the changes to the MDSPGP-4. When changes to the MDSPGP-4 occur, a public notice announcing the changes will be issued. Be advised that you have 12 months from the effective date of the MDSPGP-4's expiration, modification or revocation to complete the work under the present terms and conditions provided you have commenced construction or are under contract to commence construction of the authorized work.

In order for this authorization to be valid, you must obtain all required Federal, State, and local permits.

William P. Seib

William P. Seib
Chief, Regulatory Branch

TRANSFEREE SIGNATURE DATE AREA CODE / TELEPHONE NO.

PRINTED NAME ADDRESS

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

Effective October 1, 2011

Corps Permit Number

CENAB-OP-R-MDSPGP-4 (MARYLAND STATE PROGRAMMATIC GENERAL PERMIT-4)

TO WHOM IT MAY CONCERN:

Upon the recommendation of the Chief of Engineers, and under the provisions of Section 404 of the Clean Water Act, as amended, and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the Secretary of the Army hereby authorizes the discharge of dredged or fill material or the placement of structures into Waters of the United States, including wetlands and navigable waters. These discharges and structures must comply with all the terms and conditions identified in this MDSPGP-4. It has been determined that the project qualifies for the MDSPGP-4. Accordingly, you are authorized to undertake the activity pursuant to:

1. Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403); and/or
2. Section 404 of the Clean Water Act (33 U.S.C. 1344).

You are authorized to perform work in accordance with the terms and conditions specified in Section VII of the MDSPGP-4 effective on October 1, 2011.

VII. General Conditions: To qualify for MDSPGP-4 authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any activity-specific conditions in the MDSPGP-4 category list and any case-specific special conditions imposed by the Corps.

A. General Requirements:

1. **Other Permits:** Authorization under the MDSPGP-4 does not obviate the need to obtain other Federal, State, or local authorizations required by law.

2. **Geographic Jurisdiction:** This MDSPGP-4 will authorize work undertaken within the geographic limits of the State of Maryland under the regulatory jurisdiction of the Baltimore District.

3. **Applicability:** Applicability of the MDSPGP-4 shall be reviewed with reference to the Corps definition of waters of the United States, including wetlands, and navigable waters of the United States. Applicants are responsible for delineating boundaries of all waters of the United States, including wetland boundaries. The delineation of wetland boundaries shall be accomplished in accordance with the current Federal manual for identifying jurisdictional wetlands and appropriate guidance issued by the Corps of Engineers.

4. **Minimal Effects:** Projects authorized by the MDSPGP-4 shall have no more than minimal individual and cumulative adverse environmental effects.

5. **Discretionary Authority:** Notwithstanding compliance with the terms and conditions of the MDSPGP-4, the Corps retains discretionary authority to require an alternate Corps permit review for any project under all categories of the MDSPGP-4 based on concerns for the aquatic environment or for any other factor of the public interest. This authority may be invoked on a case-by-case basis during the review process for Category B activities whenever the Corps determines that, based on the concerns stated above, the potential consequences of the proposed project warrant individual review. In some rare instances, the Corps may have concerns for the aquatic environment or for any other public interest factor pertaining to a specific proposed project, which has already received a case-specific verification as a Category A activity. In order to evaluate this project under an alternate Corps permit review, the verification must be suspended in accordance with Section VIII.E of the MDSPGP-4.

Whenever the Corps notifies an applicant that an alternate Corps permit may be required, authorization under the MDSPGP-4 is voided. No work may be conducted until the individual Corps permit is obtained, or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under the MDSPGP-4.

6. **Single and Complete Projects:** The MDSPGP-4 shall not be used for piecemeal work and shall be applied to single and complete projects, including maintenance activities. For purposes of this MDSPGP-4, a single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers and which has independent utility. All components of a project, including all attendant features both temporary and permanent, shall be reviewed together as constituting one single and complete project. All planned phases of multi-phased projects (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be applied for and reviewed together as constituting one single and complete project. The MDSPGP-4 shall not be used for any activity or portion of a project (e.g., a pier or boat ramp), that is part of, or dependent on, an overall project (e.g., the dredging of a main navigation channel or a spur channel), for which an individual permit or some other alternate Corps permit is required.

7. ***Use of Multiple MDSPGP-4 Activities:*** More than one MDSPGP-4 activity may be used to authorize a single and complete project. However, the specific requirements, including all activity-specific requirements and impact thresholds, must be met for each MDSPGP-4 activity and the total extent of project impacts must not exceed the acreage and/or linear foot limit of the MDSPGP-4 activity with the highest specified acreage and/or linear foot limit. For example, if a road crossing is authorized under Category A of Section IV.B.1.(d)(1) with an associated nontidal bank stabilization authorized under Section IV.B.1.f.(4)(a), the maximum total impact limits to nontidal waters of the United States for the single and complete project may not exceed 10,000 square feet in total area and/or 500 linear feet in total length. The road crossing and nontidal bank stabilization activities must still meet all Category A activity-specific requirements and impact thresholds.

A single and complete project with multiple impacts, that may be eligible for authorization under a Category A and a Category B activity, requires an application submittal to the Corps and review under the MDSPGP-4 Category B verification procedures. All specific requirements, including the activity-specific requirements and impact thresholds of the Category A activity and the Category B activity must be met and the total extent of project impacts must not exceed to total acreage and/or linear foot limit of the MDSPGP-4 activity with the highest specified acreage and/or linear foot limit. For example, if a road crossing is authorized under Category A of Section IV.B.1.(d)(1) with an associated nontidal bank stabilization authorized under Section IV.B.f.(4)(b), the maximum total impact limits to waters of the United States for the single and complete project may not exceed 1/2 acre (21,780 square feet) in total area and/or 2,000 linear feet in total length. The road crossing activity must meet the Category A activity-specific requirements and impact thresholds, and the nontidal bank stabilization activity must meet the Category B activity-specific requirements and impact thresholds.

8. **Permit On-Site:** The permittee shall ensure that a copy of the MDSPGP-4 and the accompanying authorization letter are at the work site at all times. These copies must be made available to any regulatory representative upon request. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be expected to comply with all conditions of any general permit authorization.

9. **Authorized Activities in Navigable Waters Subject to Section 10 of the Rivers and Harbors Act of 1899:**

a. If future operations by the United States require removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable water, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

b. The permittee acknowledges the possibility that the structure permitted herein may be subject to damage by wave wash from passing vessels and/or ice flows within the waterway. The issuance of this permit does not relieve the permittee from taking all proper steps to ensure the integrity of the structure permitted herein and the safety of vessels moored thereto from damage by wave wash and/or ice flows, and the permittee shall not hold the United States liable for such damage.

c. The permittee must install and maintain, at his/her expense any safety lights, markers, and/or signals prescribed by the USCG, through regulations or otherwise, on the authorized facilities and/or structures. The permittee must contact the Commander (AOWW), Fifth Coast Guard District, Federal Building, 431 Crawford

Street, Portsmouth, Virginia, 23704, to ascertain the need for obstruction lights. Prior to commencing the construction or installation of an authorized structure in navigable waters of the United States, the permittee must submit a "Private Aids to Navigation Application" to the Commander of the USCG.

d. The permittee must provide location coordinates of the authorized structures, including minimum depth and other pertinent information to the USCG and request that a Local Notice to Mariners is issued regarding the authorized work.

10. For Aerial Transmission Lines Across Navigable Waters: The following minimum clearances are required for aerial electric power transmission lines crossing navigable waters of the United States. These clearances are related to the clearances over the navigable channel provided by existing fixed bridges, or the clearances which would be required by the USCG for new fixed bridges, in the vicinity of the proposed aerial transmission line. These clearances are based on the low point of the line under conditions producing the greatest sag, taking into consideration temperature, load, wind, length of span, and type of supports as outlined in the National Electrical Safety Code:

NOMINAL SYSTEM VOLTAGE (kV)	Minimum additional clearance (ft.) above clearance required for bridges.
115 and below	20
138	22
161	24
230	26
350	30
500	35
700	42
750-765	45

a. Clearances for communication lines, stream gauging cables, ferry cables, and other aerial crossings must be a minimum of ten feet above clearances required for bridges, unless specifically authorized otherwise by the District Engineer.

b. Corps Regulation ER 1110-2-4401 prescribes minimum vertical clearances for power communication lines over Corps lake projects. In instances where both the National Electrical Safety Code requirements and ER 1110-2-4401 apply, the greater minimum clearance is required.

A. **National Concern:**

1. **Historic Properties:** Any activity authorized by the MDSPGP-4 shall comply with Section 106 of the National Historic Preservation Act. Maryland Department of the Environment, in cooperation with the Maryland Historic Preservation Office, shall conduct an initial review and notify the Corps if any archaeological or other cultural resources are in the vicinity of the project. The Corps may require applicants to perform a survey of archaeological and historical resources in the project area. The Corps shall determine whether National Historic Preservation Act Section 106 consultation is required. The applicant must notify the Corps if they have knowledge that the activity may affect any historic properties listed or eligible for listing, or that the applicant has reason to believe may be eligible for listing on the National Register of Historic Places. If the permittee discovers any previously unknown archaeological or other cultural resource while accomplishing the work authorized by the MDSPGP-4, the permittee shall immediately notify the Corps of what has been found and stop work in the permit area until the required coordination has been completed. The permittee shall not begin or continue work until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied

and that the activity may proceed. Information on the location and existence of historical resources can be obtained from the MHT, Office of Preservation Services, and the National Register of Historic Places.

2. **Tribal Rights:** No activity or its operation may impair reserved tribal rights, including but not limited to, reserved water rights and treaty fishing and hunting rights.

3. **National Lands:** Activities authorized by the MDSPGP-4 shall not impinge upon the value of any Federal land, including but not limited to, National Wildlife Refuges, National Forests, National Parks, National Marine Sanctuaries, or any area administered by the FWS, U.S. Forest Service, or National Park Service (e.g., Assateague Island National Seashore).

4. **Endangered Species:** The MDSPGP-4 does not authorize any activity that may directly or indirectly affect a threatened or endangered species or a species proposed for such designation, as identified under the Federal ESA; or which may directly or indirectly destroy or adversely modify the critical habitat of such species unless and until appropriate coordination with the applicable resource agency(s) is complete and all such issues are resolved in accordance with the applicable regulations and procedures. MDE, in cooperation with MD DNR, shall conduct an initial review and notify the Corps and FWS or NMFS if any Federally listed species or critical habitat is likely to be in the vicinity of the project. The Corps shall determine if consultation with FWS or NMFS is required under Section 7 of the ESA. If consultation is required, the applicant, after notification, shall not begin or continue work until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is eligible for authorization. Information on the location of threatened and endangered species and their critical habitat can be obtained from FWS and NMFS. The Corps will be initiating consultation under the Endangered Species Act on this MDSPGP-4 and any conditions from that consultation will be inserted into the MDSPGP-4.

National Marine Fisheries Service – Endangered Species Act Requirements:

a. **Interactions with National Marine Fisheries Service Federally Threatened or Endangered Species:** Any interaction between a sea turtle or any species listed now or in the future under Federal law as a threatened or endangered species ("listed species") (e.g., North Atlantic right whale, humpback whale, shortnose sturgeon) and the vessels associated with the project must be reported to the NMFS as follows: If the animal appears alive and uninjured (i.e., breathing normally, no visible wounds, movement uninhibited), the permittee or its representative must report the incident to the NMFS Northeast Region Marine Mammal and Sea Turtle Stranding and Entanglement Hotline at (866) 755-6622 within 24 hours of returning from the trip on which they made the discovery. If the animal requires assistance, the call to the hotline must be made immediately. If the animal appears to be injured (i.e. bleeding, gasping for air, etc.) or dead, the permittee or its representative must also immediately call the hotline so the appropriate rehabilitation or stranding network representative can be contacted. The applicant shall also notify the Corps of all correspondence and interaction with the NMFS within two calendar days. Additional information about any Federally threatened or endangered species may be obtained from the attached fact sheet or online at: http://www.nero.noaa.gov/prot_res/stranding/SpeciesOverview.html and at: http://www.nero.noaa.gov/prot_res/esp/. An interaction is defined as an entanglement or capture of a listed species or a strike/direct contact between vessels or equipment used for the project and a listed species.

b. **Vessel Buffer:** When listed species are sighted, vessels must attempt to maintain a distance of 50 yards (150 feet) or greater between the animal and the vessel whenever possible. State and Federal regulations prohibit approaching a right whale within a 500 yard (1,500 foot) buffer zone. Any vessel finding itself within the 500 yard (1,500 foot) buffer zone created by a surfacing right whale must depart immediately at a safe, slow speed. If other listed species are detected, vessels will reduce their speeds to 10 knots or to the maximum extent practicable to ensure human safety. If listed species are sighted off of a moving dredge, intentional approaches within 100 yards (300 feet) of the animal must be avoided. Vessels must reduce speeds to 4 knots or the lowest speed practicable to ensure human safety. Any interactions must be reported to the NMFS.

c. **Best Management Practices Applicable to Category A Activities Within Tidal Waters Having Salinity Levels Less Than 6 Parts Per Thousand (ppt) (See Appendix B):**

(i) Pile Driving: For the protection of listed species within all tidal waters of the Chesapeake Bay in Maryland and its tidal tributaries with salinity levels <6 ppt, pile driving methods must maintain noise level thresholds not to exceed 187dB SEL re 1μPa or 206dB peak re 1μPa at a distance of >10m from the pile being installed; and for levels >155dB peak re 1μPa must not exceed 12 consecutive hours on any given day and a 12 hour

recovery period (i.e., in-water noise levels below 155dB peak re 1μPa) must be provided between work days. Pile driving construction must adhere to one of the following methods: (a) piles must be installed in-the-dry during low water; or (b) piles must be drilled and pinned to ledge; or (c) vibratory hammers must be used to install any size and quantity of wood, concrete, or steel pilings; or (d) impact hammers must be limited to one hammer and <50 piles installed per day with the following: wood piles of any size; concrete piles <18-inches diameter; steel piles <12-inch diameter if the hammer is <3,000 pounds and a wood cushion is used between the hammer and steel pile; or (e) approved pile driving methods that will allow noise level thresholds to be met.

(ii) Sediment Disturbing Activities Time-of-Year Restriction: Sediment disturbing activities, which includes pile driving activities, are prohibited during the period April 1 through June 30 within all tidal waters of the Chesapeake Bay in Maryland and its tidal tributaries with salinity levels <6 ppt for the protection of shortnose sturgeon and early life stages in these waters.

5. **Essential Fish Habitat (EFH) and Fish and Wildlife Coordination Act:** Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act requires an EFH consultation with the NMFS for any action or proposed action authorized, funded, or undertaken by a Federal agency that may adversely affect EFH. Essential Fish Habitat has been defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. NMFS has determined that many of the MDSPGP-4 Category A activities are eligible for EFH general or programmatic concurrence and require no further EFH consultation. National Marine Fisheries Service, in consultation with the District, has determined that individual EFH consultation is needed for some projects potentially eligible for authorization under Category A of the MDSPGP-4 that may adversely affect EFH. The Corps will coordinate with NMFS as part of the Category B review procedures. EFH conservation recommendations made by NMFS will normally be included as a permit requirement by the Corps. If the EFH coordination and consultation requirements cannot be resolved under the MDSPGP-4 process, an alternate Corps permit review process is required for the project. The Corps will be initiating consultation under these authorities on this MDSPGP-4, and any conditions from that consultation to protect NOAA trust resources will be inserted into this MDSPGP-4.

6. **Wild and Scenic Rivers:** No activity is authorized under the MDSPGP-4 that occurs in a component of the National Wild and Scenic River System, including rivers officially designated by Congress as study rivers for possible inclusion in the system, while such rivers are in an official study status, unless the appropriate Federal agency, with direct management responsibility for the river, has determined in writing that the proposed activity will not adversely affect any National Wild and Scenic River, including study rivers. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U. S. Forest Service, Bureau of Land Management, or FWS).

7. **Federally Authorized Civil Works Projects:**

a. **Federal Navigation Projects:** The MDSPGP-4 does not authorize interference with any existing or proposed Federal navigation projects. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration. (See VII.A.9.a.)

b. **Federal Navigation Channel Setbacks:** All activities must comply with the Baltimore District Minimum Setback Guidance for Structures Along Federally Authorized Channels. Please see the Baltimore District's Regulatory webpage to view this guidance: http://www.nab.usace.army.mil/Wetlands%20Permits/publications.htm.

c. **Other Federally Authorized Civil Work Projects (e.g., flood control, dams, and reservoirs):** The MDSPGP-4 does not authorize interference with any proposed or existing Federally authorized civil works project.

8. **Federal Liability:** In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project, or uses thereof, as a result of other permitted or unpermitted activities or from natural causes;

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest;

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit;

d. Design or construction deficiencies associated with the permitted work; and

e. Damage claims associated with any future modification, suspension or revocation of the MDSPGP-4 or any specific MDSPGP-4 verification.

9. **Navigation:** Projects authorized under the MDSPGP-4 shall not cause interference with navigation, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to projects authorized under the MDSPGP-4. Nothing in the MDSPGP-4 shall in any way restrict the District Engineer, U.S. Army Engineer District, Baltimore, from exercising his legal authority to protect the public interest in navigation or from exercising his authority under the Navigation Servitude of the United States. (See VII.B.8.)

10. **Fills Within 100-Year Floodplain:** The activity must comply with applicable Federal Emergency Management Agency approved State or local floodplain management requirements.

11. **Safety of Impoundment Structures:** To ensure that all impoundment structures are safely designed, the Corps may require non-Federal applicants to demonstrate that the structures comply with established State dam safety criteria or have been designed by qualified persons. The Corps may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

B. **Minimization of Environmental Impacts:**

1. **Avoidance and Minimization:** Discharges of dredged or fill material into waters of the United States and adverse impacts of such discharges on the aquatic ecosystem shall be avoided and minimized to the maximum extent practicable at the project site (i.e., on-site).

2. **Mitigation Standards:** A proposed compensatory mitigation proposal may be submitted with the application to expedite the process. The Corps will determine if the project is eligible for authorization under the MDSPGP-4 subject to the applicant's submittal of a compensatory mitigation proposal for stream and wetland impacts. Compensatory mitigation plans will generally include a requirement for the establishment, performance, maintenance, legal protection (e.g., conservation easements), and long-term management of the mitigation area. Applicants may propose the use of mitigation banks, in-lieu-fee programs, or separate permittee-responsible mitigation. In general, maintenance of previously authorized activities typically does not require mitigation. All mitigation must be in compliance with the 2008 Mitigation Rule (73 FR 70).

a. Wetland mitigation will generally be required for all permanent tidal or nontidal wetland losses either through the use of the State's tidal or nontidal programmatic wetland compensation, mitigation banks, in-lieu-fee programs, and/or by the permittee as required by special condition of the MDSPGP-4 or the State authorization. Generally, the minimum required wetland mitigation ratios will be as follows: 2:1 for forested and scrub-shrub wetlands; 1:1 for herbaceous emergent wetlands, and 1:1 for permanent conversion of forested wetlands to herbaceous emergent wetlands. Wetland mitigation can include wetland restoration, establishment, enhancement (including restoration or enhancement of upland forested buffers), and/or wetland preservation, unless the Corps determines in writing that some other form of mitigation would be more appropriate and provides a project-specific waiver of this requirement. Since the likelihood of success is greater and the impacts are reduced, wetland restoration should be the first compensatory mitigation option considered.

b. Stream mitigation, focusing on functional replacement, will generally be required for any project that involves losses of more than 200 linear feet to stream channels and rivers through the use of mitigation banks, in-lieu-fee programs, or by the permittee as required by special condition of the MDSPGP-4 and/or the State authorization. Stream mitigation can include stream restoration, establishment, enhancement (including enhancement of riparian buffers), and stream preservation. Riparian buffer areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat impact concerns. The need to require mitigation for impacts to open waters will be determined on a case-by-case basis.

c. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu-fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee.

d. For permittee-responsible mitigation, the special conditions of the MDSPGP-4 verification must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.

3. **Work in Wetlands:** Heavy equipment working in wetlands shall be avoided if possible and, if required, soil and vegetation disturbance shall be minimized by using techniques such as timber mats, geotextile fabric, and vehicles with low-pressure tires. Disturbed areas in wetlands shall be restored to preconstruction contours and elevations upon completion of the work.

4. **Temporary Fill and Mats**: Temporary fill and the use of mats are both considered a discharge of fill material and must be included in the quantification of impact area authorized by the MDSPGP-4. Temporary fill (e.g., access roads, cofferdams) in waters and wetlands authorized by the MDSPGP-4 shall be properly stabilized during use to prevent erosion. Temporary fill in wetlands shall be placed on geotextile fabric laid on the existing wetland grade. Upon completion of the work, all temporary fills shall be disposed of at an upland site, suitably contained to prevent erosion and transport to a waterway or wetland. Temporary fill areas shall be restored to their original, pre-construction contours and revegetated with native wetland species.

5. **Erosion and Sediment Control:** Adequate erosion and sediment control measures, practices, and devices, such as turbidity curtains in tidal waters, vegetated filter strips, geotextile silt fences, phased construction, or other devices or methods, shall be used to reduce erosion and retain sediment on-site during and after construction. These devices and methods shall be capable of (a) preventing erosion, (b) collecting sediment and suspended and floating materials, and (c) filtering fine sediment. Erosion and sediment control devices shall be removed when the work is complete and the site has been successfully stabilized. The sediment collected by these devices shall be removed and placed at an upland location, in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date. In-stream work shall be conducted "in the dry" whenever practicable. This should be accomplished using stream diversion devices, other than earthen or stone cofferdams. In addition, work in waters of the United States should be performed during periods of low-flow or no-flow, whenever practicable.

6. **Aquatic Life Movements:** No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through, or spawn/nursery within the area (e.g., anadromous/catadromous fish); unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions. A low flow channel must be maintained through any discharges placed for armoring across the channel so as to not impede flow in the waterway and/or not to block or impede the movements of anadromous, estuarine, and resident fish. Permanent culvert or pipes placed in streams must be depressed in accordance with the State of Maryland regulations. If depression of the culvert is not practicable, the applicant must submit a narrative, along with their application, documenting measures evaluated to minimize disruption of the movement of aquatic life, as well as specific documentation concerning site conditions and limitations on depressing the culvert, cost, and engineering factors that prohibit depressing the pipe/culvert. Options that need to be considered include the use of a bridge, bottomless pipe, partial depression, or other measures to provide for the movement of aquatic organisms. The documentation must also include photographs documenting site conditions. The applicant may find it helpful to contact their regional fishery agency for recommendations about the measures to be taken to allow for fish passage

7. Water Crossings:

a. All temporary and permanent crossings of waterbodies shall be suitably bridged, culverted, or otherwise constructed to withstand and to prevent the restriction of high flows and tidal flows; to maintain existing low flows; and to prevent the obstruction of movement by aquatic life indigenous to the water body, including anadromous, estuarine, and resident fish species.

b. All water crossings (e.g., utility lines and road crossings) must be constructed roughly perpendicular to waters of the United States, including streams and wetlands. Where a utility line or access road is constructed parallel to a stream corridor, an undisturbed buffer shall be maintained between the utility line/access road and the waterway to avoid or minimize potential future impacts to waters of the United States. These potential impacts would include such issues as sewer line leaks or failures, future stream channel meandering, stream bank instability and failure, and right-of-way maintenance.

c. Water crossings must be constructed "in the dry" whenever practicable. This should be accomplished by using stream diversion devices other than earthen or stone cofferdams.

d. Equipment shall cross streams only at suitably constructed permanent or temporary crossings.

e. Temporary structures and fills shall be removed and the area restored to its original contours and elevations, or to the conditions specified in the approved plans. The temporary structures and the areas of fill associated with these structures must be included in the total waterway/wetlands impacts.

8. **Discharge of Pollutants:** All activities that are authorized under the MDSPGP-4 and that involve any discharge or relocation of pollutants into waters of the United States shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251 et. Seq.), and applicable State and local laws and regulations. No discharge of dredged or fill material in association with this authorization may consist of unsuitable material such as trash, debris, car bodies, asphalt, etc.

9. **Spawning Areas:** Activities, including structures and work in navigable waters of the United States or discharges of dredged or fill materials in fish and shellfish spawning or nursery areas during spawning seasons, shall be avoided. Impacts to these areas shall be avoided or minimized to the maximum extent practicable during all other times of year. Activities that result in the physical destruction (e.g., through excavation, dredging, mining, fill, or significant downstream sedimentation by substantial turbidity) of an important spawning/nursery area are not authorized by this MDSPGP-4.

10. **Waterfowl Breeding and Wintering Areas:** Discharges into breeding and wintering areas for migratory waterfowl shall be avoided to the maximum extent practicable.

11. **Environmental Values:** The permittee shall make every reasonable effort to construct or operate the work authorized under the MDSPGP-4 in a manner that maintains as many environmental values as practicable, and that avoids or minimizes any adverse impacts on existing fish, wildlife, and natural environmental values.

12. **Management of Water Flows:** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

13. **Water Supply Intakes:** No discharge of dredged or fill material may occur in the proximity of a public water supply intake.

D. **Procedural Conditions:**

1. **Inspections:** The permittee shall permit the District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary to ensure that the work is being performed in accordance with the terms and conditions of the MDSPGP-4. The District Engineer may also require post-construction engineering drawings (as-built plans) for completed work, and post-dredging survey drawings for any dredging work.

2. **Compliance Certification:** Every permittee who receives a written MDSPGP-4 verification shall submit a signed Compliance Certification Form within 60 days following completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals). Failure to submit the Compliance Certification Form by the permittee could result in the Corps taking appropriate non-compliance enforcement action against the permit holder. The Corps will provide a blank copy of the Compliance Certification Form to the permittee with the MDSPGP-4 verification. The completed form will include the following:

a. A statement that the authorized work either was or was not done in accordance with the MDSPGP-4 verification, including any general and/or specific conditions. If the activity was not done in accordance with the MDSPGP-4 verification, including any general and/or specific conditions and requirements, the permittee shall describe the specifics of the deviation from the authorized activity.

b. A statement that any required mitigation was or was not completed in accordance with the permit conditions. If the mitigation was not completed in accordance with the permit conditions, the permittee shall describe the specifics of the deviation from the permit conditions.

c. The signature of the permittee, certifying the completion of the work and compensatory mitigation.

After the project is completed, the certification shall be sent to the Baltimore District at the following address:

U. S. Army Corps of Engineers
Baltimore District
Attn: CENAB-OP-R
P. O. Box 1715
Baltimore, Maryland 21203-1715

3. **Transfer of MDSPGP-4 Verifications:** If the permittee sells the property associated with a MDSPGP-4 verification, the permittee may transfer the MDSPGP-4 verification to the new owner by submitting a letter to the Baltimore District Corps of Engineers office to validate the transfer. A copy of the MDSPGP-4 verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this MDSPGP-4 are still in existence at the time the property is transferred, the terms and conditions of this MDSPGP-4, including special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this MDSPGP-4 permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____ _____
(Transferee) (Date)

4. **Maintenance:** The permittee shall properly maintain the work or structure authorized by the MDSPGP-4 in good condition and in compliance with the terms and conditions of the MDSPGP-4, including maintenance to ensure public safety.

5. **Property Rights:** The MDSPGP-4 does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

6. **Modification, Suspension and Revocation:** The MDSPGP-4, or any verification under it, may be either modified, suspended, or revoked, in whole or in part, pursuant to DA policies and procedures and any such action shall not be the basis for any claim for damages against the United States.

7. **Restoration:** The permittee, upon receipt of a notice of revocation of authorization under the MDSPGP-4, shall restore the wetland or waterway to its former condition, without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

8. **Special Conditions:** The Corps may impose special conditions on any project authorized under the MDSPGP-4, in cases where the Corps determines that special conditions are necessary to avoid or minimize adverse effects on the environment or on any other factor of the public interest. Failure to comply with all conditions of the authorization/ verification, including special conditions, will constitute a permit violation/unauthorized work and may subject the permittee to criminal, civil, or administrative penalties, and/or restoration.

9. **False or Incomplete Information:** In granting authorization pursuant to this permit, the Baltimore District will rely upon information and data provided by the permittee. If the project is verified by the Corps or MDE under the MDSPGP-4 and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the MDSPGP-4 verification may be revoked, in whole or in part, and/or the United States may institute appropriate legal proceedings.

10. **Compliance:** Any activity performed in waters of the United States, including wetlands and navigable waters, that is not in compliance with all the terms and conditions of the MDSPGP-4, which includes the MDSPGP-4 authorized activity activity-specific requirements, constitutes unauthorized work and is subject to an enforcement action by the Corps or the EPA. Furthermore, the MDSPGP-4 does not delegate any Section 404 enforcement or regulatory authority. Unauthorized work in waters of the United States, including wetlands and navigable waters, is subject to one or more of the following responses by EPA and/or the Corps:

a. A Cease and Desist order and/or an administrative compliance order requiring remedial action.

b. Initiation and assessment of a Class I administrative penalty order pursuant to Section 309(g) of the CWA.

c. Initiation and assessment of a Class II administrative penalty for continuing violation pursuant to Section 309(g) of the CWA.

d. Referral of the case to the U. S. Attorney with a recommendation for a civil or criminal action.

e. If the Corps determines that an after-the-fact application is appropriate, it will be reviewed following the appropriate procedures.

f. Any other appropriate response.

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

Operations Division

MDSPGP-4 PERMIT COMPLIANCE CERTIFICATION FORM (10/1/11)

Corps Permit Tracking No. _____ Category & Activity Number _____

Project Name _____ Applicant Name _____

Waterway _____ County _____

Dear Permittee:

In accordance with the compliance certification condition of your MDSPGP-4 authorization, you are required upon completion of all permitted work, or if mitigation/compensation is required, within 60 days following completion of the authorized work and any required mitigation (but not the mitigation monitoring, which requires separate submittals), to complete and sign this certification form and return it to the Corps of Engineers, Baltimore District, ATTN: CENAB-OP-R, P.O. Box 1715, Baltimore, Maryland 21203-1715.

Please note that the permitted activity is subject to compliance inspections by U.S. Army Corps of Engineers representatives. As a condition of this permit, failure to return this notification form, provide the required information below, or to perform the authorized work in compliance with the permit, can result in suspension, modification or revocation of your authorization in accordance with 33 CFR Part 325.7 and/or administrative, civil, and/or criminal penalties, in accordance with 33 CFR part 326.

Please provide the following information:

1. Date authorized work commenced: _____ 2. Date authorized work completed: _____

3. Was all work and any required mitigation, completed in accordance with your MDSPGP-4 authorization, includin all general and/or specific conditions? YES___ NO ___

4. For Category A projects involving pile driving activities that are within all tidal waters of the Chesapeake Bay in Maryland and its tidal tributaries with salinity levels less than 6 parts per thousand (See Appendix B of the MDSPGP-4), please indicate the pile driving method that was used for the authorized work:

_____(a) Piles must be installed in-the-dry during low water;
_____(b) Piles must be drilled and pinned to ledge;
_____(c) Vibratory hammers must be used to install any size and quantity of wood, concrete, or steel pilings;
_____(d) Impact hammers must be limited to one hammer and <50 piles installed per day with the following: wood piles of any size; concrete piles <18-inches diameter; steel piles <12-inch diameter if the hammer is <3,000 pounds and a wood cushion is used between the hammer and steel pile;
_____(e) Approved pile driving methods that will allow noise level thresholds to be met.
Describe: _____

5. Explain in detail any deviations to the authorized work and/or mitigation (use additional sheets if necessary)

_____

_____

6. Was mitigation accomplished through a contribution to the Maryland Nontidal Wetlands Compensation Fund? YES_____NO_____ (if NO, please complete Nos. 6 and 7 below).

7. Wetland Mitigation: Required? YES____ NO_____ Required Completion Date _____
Wetland Mitigation Completed? YES_____ NO____ Mitigation Monitoring Reports Required? YES____ NO___

8. Please attach labeled photographs showing completed work including mitigation area(s).

I hereby certify that, except as noted above, that all work, including mitigation, has been completed in accordance with the terms and conditions, including special conditions of the above referenced permit.

_____
Signature of Permittee Date

Address: _____

_____

Telephone: _____

_____
Signature of Contractor/Agent Date

Address: _____

_____

Telephone: _____

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

Corps Permit Tracking Number

MDSPGP-3
CATEGORY I ACTIVITY (I-e(8))
Outfall Structures and Associated Intake Structures

The projects, structures and activities, listed below, must comply with all activity-specific conditions, in addition to all of the general conditions of this general permit.

This activity authorizes discharges of dredged or fill material associated with the construction of new outfall structures and associated intake structures where the effluent from the outfall is authorized, conditionally authorized, or specifically exempted, or is otherwise in compliance with regulations issued under the National Pollutant Discharge Elimination System (NPDES) program. All work authorized by this activity, including discharges, must comply with all activity-specific impact limits and conditions listed below, in addition to the general conditions of this permit (Sections 10 and 404; all waters of the United States).

Impact Limits: The total temporary and permanent impact to waters of the United States, which includes tidal and nontidal wetlands, streams, rivers, navigable waters, and other open waters may not exceed ½ acre (21,780 square feet).

Conditions:

(i) Application must be submitted to MDE for Corps authorization.

(ii) In order to minimize the effects of intakes on anadromous fish eggs and larvae, and oyster larvae, intake structures should be equipped with screening (with mesh size no larger than 2 mm) of wedge wire or another material of equal or better performance. Where feasible, intakes should be located away from spawning or nursery grounds, or to minimize the impingement on, or entrainment of, eggs or larvae. In addition, intake velocities should not exceed 0.5 ft./sec.

12152015-01

Attachment A

EFS SBS Confined Space Entry Permit

PERMIT VALID FOR 8 HOURS ONLY AND IS NOT TRANSFERABLE.
PERMIT WILL REMAIN AT THE WORK LOCATION UNTIL JOB IS COMPLETED.

DATE, WORK LOCATION and DESCRIPTION
12/15/15 LOT #6 OUTFALL MANHOLE (BY BULKHEAD)

PURPOSE OF ENTRY
REPAIR EQUIPMENT - Pipe Connection - New Pipe to Old pipe

ENTRY SUPERVISOR (SIGNATURE) in charge of crew and Phone #
LARRY @ ELITE ENVIRONMENTAL

COMMUNICATION PRACTICES
VERBAL ONLY

PROPERTY OWNER/PROPERTY MANAGER SIGNATURE

RESCUE PRACTICES (phone numbers at bottom)
ROPE / HARNESS

REQUIREMENTS COMPLETED	INITIALS	TIME
Lock Out/De-energize/Try-out	N/A	10:00AM - 4:00PM
Line(s) Broken-Capped-Blanked	[illegible]	
Purge-Flush and Vent	[illegible]	
Ventilation	N/A	
Secure Area (Post and Flag)	[illegible]	
Breathing Apparatus	N/A	
Resuscitator - Inhalator	N/A	
Standby Safety Personnel	[illegible]	
Full Body Harness w/"D" ring	[illegible]	
Emergency Escape Retrieval Equip	[illegible]	
Lifelines	[illegible]	
Fire Extinguishers	N/A	
Lighting (Explosive Proof)	N/A	
Protective Clothing	[illegible]	
Respirator(s) (Air Purifying)	N/A	
Burning and Welding Permit	N/A	

Note: Items that do not apply enter N/A in the blank.

Please note any problems encountered during the Entry on the back of the Entry Permit.

Attachment B

Permit-Required Confined Space Monitor Log

Time 30 min intervals	Initials	O_2 (19.5 % to 23.5 %)	LEL (<10%)	CO (<35 PPM)+	Aromatic Hydrocarbon (<1 PPM)+ (<5 PPM)*	Hydrogen Cyanide (<4 PPM)*	H_2S (<10 PPM)+ (15 PPM)*	Ammonia (<35 PPM)*	Sulfur Dioxide (<2 PPM)+ (<5 PPM)*
1038	MP	20.9	0	0	0	0	0.0	0	0
1055		20.9	0	0	0	0	0.0	0	0
1125		20.9	0	0	0	0	0.0	0	0
1155		20.9	0	0	0	0	0.0	0	0
1330		20.9	0	0	0	0	0.0	0	0
1400		20.9	0	0	0	0	0.0	0	0
1430		20.9	0	0	0	0	0.0	0	0

* Short-term exposure limit: Employee can work in the area up to 15 minutes.
\+ 8 hr. Time Weighted Avg: Employee can work in area 8 hrs (longer with appropriate respiratory protection).

Environmental monitoring conducted by: _____

Instrument(s) used:	Model	Type	Serial #	Unit #:
MultiRae	PGM 6228		023189	

Attendant / Standby Person: Walt Patua Tetra Tech Inc

Remarks:

Authorized Attendant to log time In and Out for each person listed on permit for each entry made and log monitoring results once per half hour.

Entrant's Name	In	Out	In	Out	In	Out	In	Out	In	Out
Mike	1039	1049	1055	1058	1125	1155	1330	1430		
Jeremy	1038	1049	1055	1058	1125	1155	1330	1430		

12212015-01

Attachment A

EFS SBS Confined Space Entry Permit

PERMIT VALID FOR 8 HOURS ONLY AND IS NOT TRANSFERABLE.
PERMIT WILL REMAIN AT THE WORK LOCATION UNTIL JOB IS COMPLETED.

DATE, WORK LOCATION and DESCRIPTION
12/21/15 LOT 6 OUTFALL #007 MANHOLE @ LAGOON

PURPOSE OF ENTRY
REMOVE LINE PLUG TO Dorchester Cove (Newly Repaired drain line

ENTRY SUPERVISOR (SIGNATURE) in charge of crew and Phone #
LARRY @ ELITE ENVIRONMENTAL

COMMUNICATION PRACTICES
VERBAL ONLY

PROPERTY OWNER/PROPERTY MANAGER SIGNATURE

RESCUE PRACTICES (phone numbers at bottom)
TRIPOD / HARNESS

REQUIREMENTS COMPLETED	INITIALS	TIME
Lock Out/De-energize/Try-out	N/A	8:30 AM
Line(s) Broken-Capped-Blanked	N/A	
Purge-Flush and Vent	SA	
Ventilation	SA	
Secure Area (Post and Flag)	SA	
Breathing Apparatus	N/A	
Resuscitator - Inhalator	N/A	
Standby Safety Personnel	SA	
Full Body Harness w/"D" ring	SA	
Emergency Escape Retrieval Equip	SA	
Lifelines	SA	
Fire Extinguishers	N/A	
Lighting (Explosive Proof)	N/A	
Protective Clothing	N/A	
Respirator(s) (Air Purifying)	N/A	
Burning and Welding Permit	N/A	

Note: Items that do not apply enter N/A in the blank.

Please note any problems encountered during the Entry on the back of the Entry Permit.

ZAP Accidents

Attachment B

Permit-Required Confined Space Monitor Log

Time 30 min intervals	Initials	O_2 (19.5 % to 23.5 %)	LEL (<10%)	CO (<35 PPM)+	Aromatic Hydrocarbon (<1 PPM)+ (<5 PPM)*	Hydrogen Cyanide (<4 PPM)*	H_2S (<10 PPM)+ (15 PPM)*	Ammonia (<35 PPM)*	Sulfur Dioxide (<2 PPM)+ (<5 PPM)*
1052	TD	20.9	0	0	0	—	0	—	—
1120	TD	20.9	0	0	0	—	0	—	—
1145	TD	20.9	0	0	0	—	0	—	—
1220	TD	20.9	0	0	0	—	0	—	—

* Short-term exposure limit: Employee can work in the area up to 15 minutes.
\+ 8 hr. Time Weighted Avg: Employee can work in area 8 hrs (longer with appropriate respiratory protection).

Environmental monitoring conducted by: Tom Dickson - 55410				
Instrument(s) used:	**Model**	**Type**	**Serial #**	**Unit #:**
Multi RAE	PGM6228	4GAS/PID 10.6eV lamp	023189	
Attendant / Standby Person: Tom Dickson / Gary Norris				
Remarks:				

Authorized Attendant to log time In and Out for each person listed on permit for each entry made and log monitoring results once per half hour.

Entrant's Name	In	Out	In	Out	In	Out	In	Out	In	Out
M. Schatz	1052	1105	1120	1130	1220	1225				

SITE SETUP DOCUMENTAITON

LOCKHEED MARTIN

Dig Permit

See Enterprise Operations Procedure EO-28, Digging Projects, for instructions.

Date	Project Manager
April 20, 2015	John Morgan /Tom Blackman(Lockheed Martin) Tony Apanavage (Tetra Tech)

Building/Location

Block D, D Panhandle, F,G,H Soil Remedy Investigation, Middle River Complex

Purpose of excavation

Tetra Tech will oversee the setup of engineering controls and the excavation of contaminated soils in Tax Blocks D, D Panhandle, F, G and H, USTs in Blocks F and G and bulkhead repair in D Panhandle.

Company/LM organization performing dig

Tetra Tech, Elite Environmental

Planned dig date	Duration	Start time
April 27, 2015-December 31 2015	8 months	0700
Expected depth	**Width**	**Length**
Approximately 0-7 feet deep	Width of excavations per drawings	Length of excavations per drawings

Underground utilities identified?	Overhead utilities?	Electrical lines?	Gas lines?
☒ Yes ☐ No	☒ Yes ☐ No ☐ N/A	☒ Yes ☐ No	☒ Yes ☐ No
Sewer?	**Water?**	**Telecommunications?**	**Other? Specify: Storm Water**
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No ☐ N/A	☒ Yes ☐ No

Site-specific or customer utility locating requirements completed?

☒ Yes ☐ No ☐ N/A

Sketch of dig project (or attach drawing)

See Attached

A private utility locating contractor (Enviroscan) was used to mark subsurface utilities on April 13-14, 2015. Confirmation letter attached.

Miss Utility Ticket # 15198939 (Block G and H)

The excavation areas are presented in the enclosed maps.

Project Manager Tony Apanavage	Date April 15, 2015	Customer SECURITY	Date 4/21/15
~~Telecommunications~~ FACILITIES SUPERVISOR	Date	Customer	Date 4/23/15
ESH	Date 4-20-15	Customer	Date 4/21/15
Building/Facility Manager			Date 4/21/15

P.M.

CPS

LI

CPIO

Final Report
Geophysical Survey
Utility/Structure Clearance for Soil Remediation Excavations
Middle River Complex
Blocks F, D, and D Panhandle
Middle River, MD
Enviroscan Reference Number 051533

Prepared For: Tetra Tech NUS, Inc.
Prepared By: Enviroscan, Inc.
June 18, 2015

1051 Columbia Avenue ● Lancaster, PA 17603 ● 717.396.8922 ● Fax 717.396.8746 ● email@enviroscan.com ● www.enviroscan.com

June 17, 2015

Mr. Tony Apanavage
Tetra Tech NUS, Inc.
20251 Century Boulevard
Suite 200
Germantown, MD 20874-7114

RE: Geophysical Survey
Utility/Structure Clearance for Soil Remediation Excavations
Middle River Complex
Blocks F, D, and D Panhandle
Middle River, MD
Enviroscan Reference Number 051533

Dear Mr. Apanavage:

Pursuant to your request for a proposal on April 2, 2015, Enviroscan, Inc. has conducted a multi-technique geophysical survey at the above-referenced site. The fieldwork was performed on May 20 and 21, 2015. The purpose of the survey was to perform utility clearance at client-designated proposed soil remediation excavations.

Methods

The utility survey was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology, including:

- a Radiodetection RD8000 Multi-Frequency pipe and cable tracer;
- a Radiodetection C.A.T. and Genny pipe and cable locator/tracer;
- a Fisher TW-6 electromagnetic (EM) pipe and cable locator/tracer;
- a GSSI SIR-4000 ground penetrating radar (GPR) system.

The principles of these techniques are detailed below.

RD8000

Utility tracing was conducted using a Radiodetection RD8000 digital cable and pipe tracer. The transmitter can be directly (conductively) coupled to exposed portions of a metallic pipe, cable, or wire or indirectly (inductively) to a subsurface metallic utility of known location/orientation. The transmitter remains stationary and energizes the metallic utility at a frequency selected by the operator (512 Hz, 8 kHz, 33 kHz, or 65 kHz), which is received at the ground surface by the digital locator. When the transmitter is directly coupled to the metallic utility, the digital receiver can also calculate the depth of the utility to an accuracy of ±10% of the actual depth of the utility. Please note the close proximity to bends in the traced line or poor signal strength can result in erroneous depth estimations.

C.A.T. and Genny

The survey areas were also scanned with a Radiodetection C.A.T. and Genny pipe and cable locator and tracer. In Power mode, the C.A.T. detects the 50 to 60 Hertz (Hz) electromagnetic field generated by live power cables and other metallic utilities to which a live line is grounded. In Radio mode, the C.A.T. detects buried conductors (cables or metallic pipes) as they conduct and re-transmit commercial broadcast radio energy. In Genny mode, the C.A.T. detects signal generated by the Genny transmitter. The Genny transmitter can be coupled directly (conductively) to exposed portions of a metallic pipe, cable, or wire or indirectly (inductively) to a subsurface metallic utility with known location and orientation.

TW-6

In order to detect unknown utilities, Enviroscan employed a Fisher TW-6 pipe and cable locator and tracer. In pipe and cable search mode, the TW-6 is essentially a deep-sensing metal detector that detects any highly electrically conductive materials (e.g. metals) by creating an electromagnetic field with a transmitting coil. A receiving coil at a fixed separation from the transmitter measures the field strength. As the instrument is swept along the ground surface, subsurface metallic bodies distort the transmitted field. The change in field strength/orientation is sensed by the receiver, setting off an audible alarm and/or causing deflection of an analog meter. The TW-6 can nominally detect a 2-inch metal pipe to a depth of 8 feet and a 10-inch metal pipe to a depth of 14 feet.

In pipe and cable tracing mode, the TW-6 transmitter can be coupled directly (conductively) to exposed portions of a metallic pipe, cable, or wire or indirectly (inductively) to a subsurface metallic utility with known location and orientation. The transmitter remains stationary and energizes or excites the metallic utility to be traced with an 81.92-kilohertz signal that can be traced at the ground surface using the mobile TW-6 receiver wand or probe.

GPR

GPR systems produce cross-sectional images of subsurface features and layers by continuously emitting pulses of radar-frequency energy from a scanning antenna as it is towed along a survey profile. The radar pulses are reflected by interfaces between materials with differing dielectric properties. The reflections return to the antenna and are displayed on a video monitor as a continuous cross section in real time. Since the electrical properties of metal are distinctly different from soil and backfill materials, metallic pipes and other structures commonly produce dramatic and characteristic reflections. Fiberglass, plastic, concrete, and terra-cotta pipes and structures also produce recognizable, but less dramatic reflections. Scanning was performed using a GSSI SIR-4000 GPR controller with an internal hard drive and a color display, and both a high-frequency, high-resolution 400 megaHertz (MHz) antenna or transducer, and a lower frequency deep-penetrating 200 MHz transducer.

Results Summary

The utility clearance survey results are depicted in Figures 1 through 3. The mapped utilities located during the survey are overlain on a base map of the site. Outlines of the proposed excavations appear as blue polygons. Several utilities were found (and marked in the field) to pass through or near the proposed excavations. When possible, the approximate depth of a utility was noted in the field markings.

The results for Block F are depicted in Figures 1 and 2. Figure 1 shows the current and past utility mark-out results. Figure 2 also includes the terrain conductivity contours from an EM-31 survey performed for Tetra Tech in 2005. The contours support the utility mark-out results. Several of the proposed excavations have known utilities within or near their boundaries.

The results for Block D are depicted in Figure 3, which shows the current and past utility mark-outs. Additionally, the results of a past EM-61 survey performed in 2014 are depicted in a portion of the Block D area. The report associated with this survey is included as Appendix A.

The Results for the Block D and Panhandle are shown in Figure 4. This figure shows the current and past utility mark-outs. No archived EM data are included in this figure. One known storm pipe is near the corner of Proposed Excavation D.

Limitations

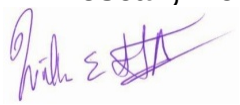
The above-referenced geophysical survey was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology. Enviroscan does not accept responsibility for survey limitations due to inherent technological limitations or unforeseen site-specific conditions. However, we make every effort to identify and notify the client of such limitations or conditions. In particular, please note the following specific limitations and recommendations:

- Enviroscan's field markings should be considered accurate to within approximately +/-18 inches for single lines. In contrast, since electromagnetic tracing of duct banks provides only a centerline, the bank itself may extend for 2 to 3 feet beyond the marked trace.

- The completion of this survey does not relieve any party of applicable legal obligations to notify the appropriate One-Call center prior to digging or drilling.

As always, we appreciate this opportunity to have worked with you. If you have any questions, please do not hesitate to contact me.

Sincerely,
Enviroscan, Inc.



William E. Steinhart III, M.Sc., P.G.
Principal Geophysicist

Technical Review By:
Enviroscan, Inc.



Felicia Kegel Bechtel, M.Sc., P.G.
President

enc.: Figure 1: Utility Survey Results Block F
Figure 2: Utility Survey Results Block F with 2005 EM-31 Contours
Figure 3: Utility Survey Results Block D
Figure 4: Utility Survey Results Block D and Panhandle
Appendix A: 2014 report



The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

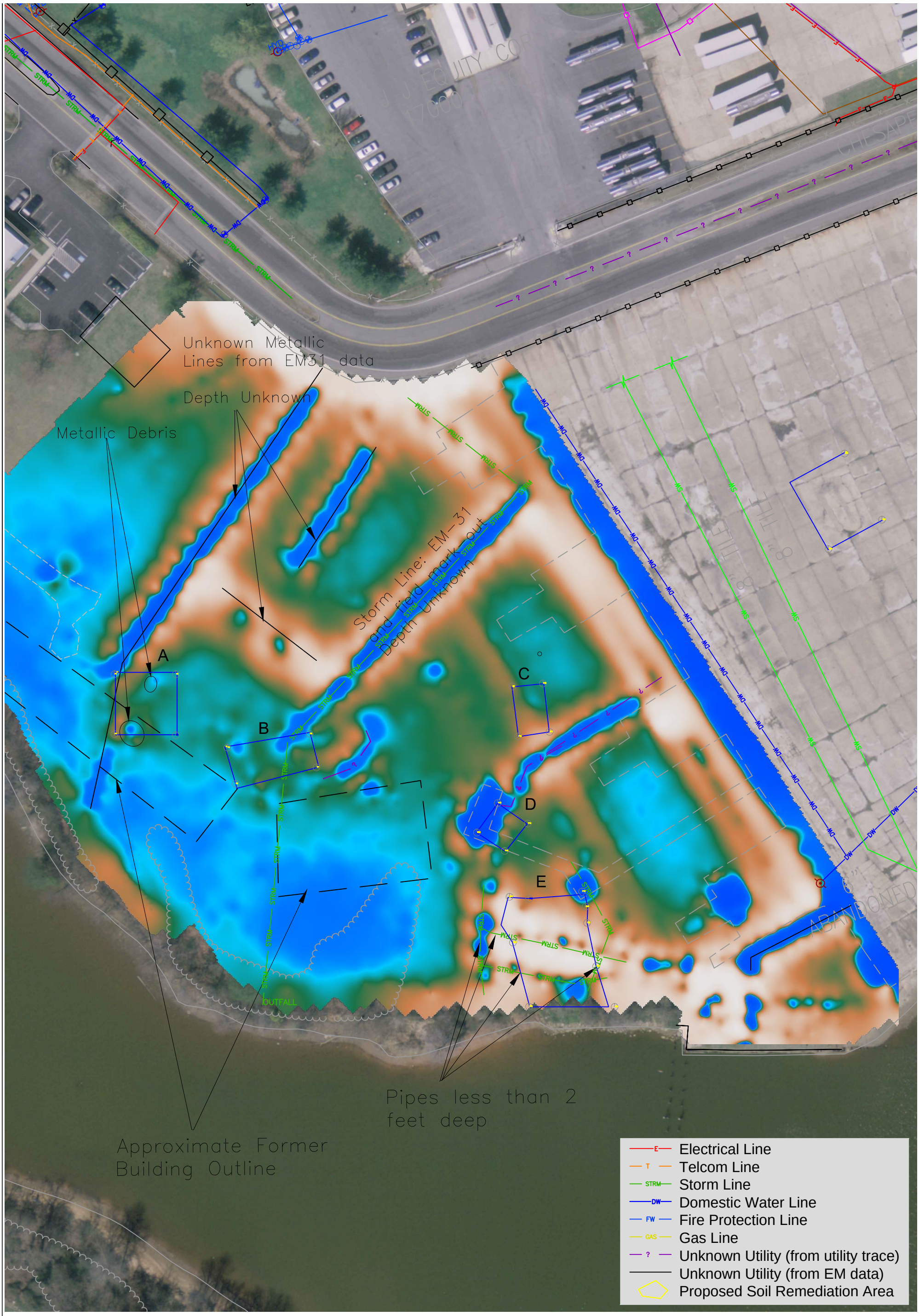
Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Block F

Middle River Complex
Middle River, MD

Figure 1

Project Number	Survey Date	Drawn by:
051533	05/21/15	WES
Original Scale	Revision/Issue	Approved by:
1" = 40'	06/08/15	FKB



Terrain Conductivity (mmho/m)

-34 25 30 34 37 40 42 45 47 49 52 55 59 65 76 95

Increasing Metallic Response

The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

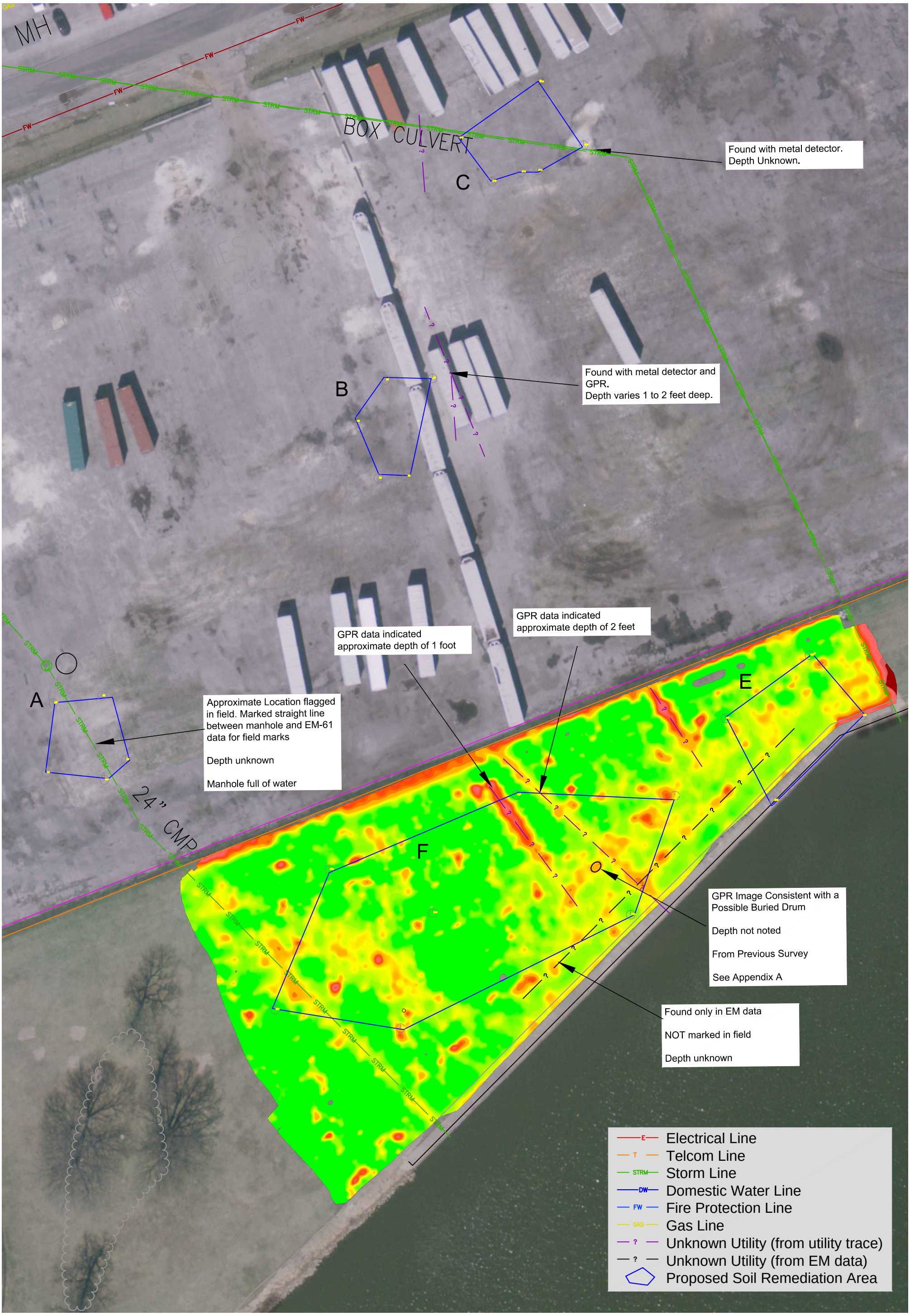
Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Block F With 2005 EM-31 Contours

Middle River Complex
Middle River, MD

Figure **2**

Project Number	Survey Date	Drawn by:
051533	05/21/15	WES
Original Scale	Revision/Issue	Approved by:
1" = 40'	06/08/15	FKB



The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

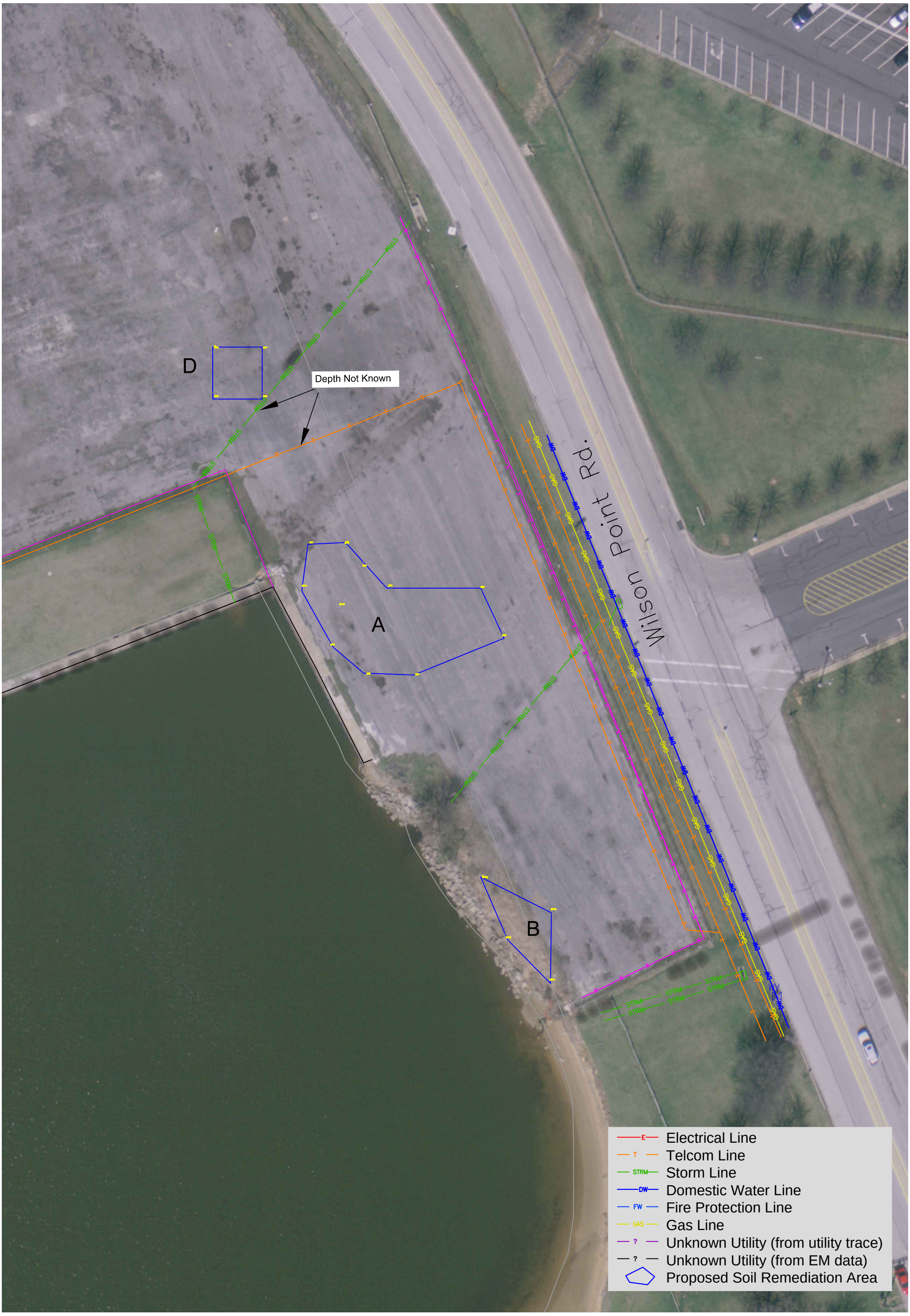
Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Block D with 2014 EM-61 Contours

Middle River Complex
Middle River, MD

Figure 3

Project Number	Survey Date	Drawn by:
051533	04/15/15	WES
Original Scale	Revision/Issue	Approved by:
1" = 40'	04/30/15	FKB



The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

ENVIROSCAN, INC.

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Block D and Panhandle

Middle River Complex
Middle River, MD

Figure 4

Project Number	Survey Date	Drawn by:
051533	04/15/15	WES
Original Scale	Revision/Issue	Approved by:
1" = 40'	04/30/15	FKB

Appendix A

Enviroscan Report 051406

Final Report
Geophysical Survey – Metallic Target Detection/Delineation
Block D Waterfront Area
Middle River Complex
Middle River, MD
Enviroscan Reference Number 051406

Prepared For: Tetra Tech NUS, Inc.
Prepared By: Enviroscan, Inc.
June 6, 2014

1051 Columbia Avenue ● Lancaster, PA 17603 ● 717.396.8922 ● Fax 717.396.8746 ● email@enviroscan.com ● www.enviroscan.com

June 5, 2014

Mr. Tony Apanavage
Tetra Tech NUS, Inc.
20251 Century Boulevard
Suite 200
Germantown, MD 20874-7114

RE: Geophysical Survey – Metallic Target Detection/Delineation
Block D Waterfront Area
Middle River Complex
Middle River, MD
Enviroscan Reference Number 051406

Dear Mr. Apanavage:

Pursuant to your request, Enviroscan, Inc. (Enviroscan) has completed a geophysical survey of the above-referenced site. The survey consisted of a reconnaissance-level electromagnetic (EM) survey. The methods and results of the survey are described below.

Survey Purpose and Site Description

The primary purpose of the survey was to determine whether there is evidence of buried metallic debris (e.g. tanks, drums, building foundations, etc.) near a recently examined DPT location (SB-1305) that showed visual signs of contamination and unexpectedly high PID levels, while nearby PID locations were clean (see black and light blue triangles, Figure 1).

Survey Methods

In order to provide detection of large subsurface metallic targets, while minimizing interference from surficial debris and structures, Enviroscan performed an electromagnetic (EM) survey using a Geonics, Ltd. EM-61 MK2 instrument. Ground penetrating radar (GPR) was then utilized to further characterize targets identified with the EM-61 MK2. The principles of each technique are described below.

EM-61 MK2

The EM-61 MK2 uses a one-meter by ½-meter coil to transmit 150 electromagnetic pulses per second into the ground at each measurement station. During the off-time between transmitted pulses, a receiver coil measures the decay of transient electrical currents induced by the transmitted pulses. The decay is characterized by recording the strength of the transient electrical currents (in milliVolts) at four different delays or time gates following shut-off of the applied field. Electrical currents in moderately conductive earth materials (e.g. electrolytic soils) dissipate rapidly, leaving the more prolonged currents due to buried metallic objects. The EM-61 MK2 measures the surficial electrical potential due to the prolonged subsurface currents, providing a digital read-out of the relative metallic content of the subsurface.

To complete the EM-61 MK2 survey, a system of profiles (at approximately 5-foot intervals) was surveyed by towing the EM-61 MK2 with a low metallic profile Yamaha Rhino UTV. Data were collected at a rate of eight readings per second (for an average station spacing of approximately one foot). Location control was maintained using a Topcon GMS-110 global positioning system (GPS) receiver. The GPS positions were collected with real-time differential correction, using the corrections from a coastguard beacon in Annapolis, MD. The resulting differential GPS (DGPS) positions have an accuracy of better than two feet. GPS and EM data were fed simultaneously to a Juniper System Allegro data logger running Trackmaker 61 software by Geomar, Inc. This software allows display of the data coverage in real time to ensure complete site coverage.

The EM-61 MK2 records four measurements spaced by time (time gates) after the initial transmit pulse. Gate 1 reads responses from metal targets of all depth and size within the range and sensitivity of the instrument. Gate 2 filters out the smallest targets. Gates 3 and 4 read responses from large targets, with Gate 4 showing the least interference from smaller targets. The purpose of this survey was to detect and delineate possible individual buried metallic targets of a size comparable to drums and USTs; therefore, Gate 3 was selected for the best display of possible targets of interest. Results of the EM-61 MK2 survey are depicted as contours of the individual EM-61 MK2 station measurements in millivolts on Figure 1. The color contours depicted in Figure 1 show increasing metallic response from green to yellow to orange to red to pink colors.

TW-6

In order to re-acquire the location of identified metallic anomalies detected in the EM-61 MK2 survey, Enviroscan employed a GPS and a Fisher TW-6 pipe and cable locator and tracer. In pipe and cable search mode, the TW-6 is essentially a deep-sensing metal detector that detects any highly electrically conductive materials (e.g. metals) by creating an electromagnetic field with a transmitting coil. A receiving coil at a fixed separation from the transmitter measures the field strength. As the instrument is swept along the ground surface, subsurface metallic bodies distort the transmitted field. The change in field strength/orientation is sensed by the receiver, setting off an audible alarm and/or causing deflection of an analog meter. The TW-6 can nominally detect a 2-inch metal pipe to a depth of 8 feet and a 10-inch metal pipe to a depth of 14 feet.

Ground Penetrating Radar Survey

Anomalies in the EM-61 MK2 data that indicated the presence of subsurface metallic objects indicative of building debris, USTs, or drums (see Figure 1) were re-located using DGPS and the TW-6, and then scanned with GPR to identify any high-amplitude parabolic reflections of the type indicative of intact tanks, utilities, or buried debris. GPR systems produce cross-sectional images of subsurface features and layers by continuously emitting pulses of radar-frequency energy from a scanning antenna as it is towed along a survey profile. The radar pulses are reflected by interfaces between materials with differing dielectric properties. The reflections return to the antenna and are displayed on a color monitor as a continuous cross section in real time. Since the electrical properties of metal are distinctly different from soil and backfill materials, metallic pipes and other structures produce dramatic and characteristic reflections. Fiberglass, plastic, concrete, and terra-cotta pipes and structures also produce recognizable, but less dramatic, reflections.

Enviroscan performed GPR scanning of the survey area using a GSSI UtilityScan DF GPR controller, along with a dual frequency 800/300 MHz scanning antenna. During data collection, the GPR images were inspected in real-time for any GPR reflections that are characteristic of metallic USTs or drums (i.e. high-amplitude parabolic reflections). Anomalies identified in the field were marked with semi-permanent marking paint and flags. The EM anomalies further investigated with GPR are depicted in Figure 1, overlain on the EM-61 MK2 data as blue-outlined polygons/ovals.

Results

The EM survey results are depicted in Figure 1, showing the Channel 3 EM-61 MK2 results in millivolts from this survey. The EM survey shows numerous small low- to moderate-amplitude and several large varying-amplitude EM anomalies. The survey area was much larger than needed to identify metallic anomalies near Boring SB-1305 (see blue triangle, Figure 1). The large area aids in identifying linear metallic anomalies characteristic of utility pipes that may also have an impact on the suspect boring. Enviroscan identified four EM anomalous areas between the clean borings and SB-1305 and three linear EM anomalies (see blue polygons/ovals, Figure 1). No other anomalies were in close enough proximity to affect SB-1305 alone. These anomalies were further scanned with GPR. Within the largest anomaly, a metallic object with the GPR characteristics of a potential drum was identified (see black oval labeled A, Figure 1). No other anomalies scanned with GPR showed any characteristic shapes. One linear anomaly, labeled B, just to the east of SB-1305, was delineated. The suspected pipe tracks to the northwest, and its origin is not known. A second potential linear anomaly, labeled C, tracks to the northeast. This anomaly is not as clearly defined, and runs parallel to the seawall about 25 feet inland. A third linear anomaly was delineated to the west of SB-1305, labeled D. This anomaly is not long, (approximately 60 to 80 feet), and clearly has ends within the survey area. GPR scanning of Anomaly D showed GPR image characteristics consistent with shallow buried metallic debris. This anomaly might be the result of a disposal trench. This determination is based on the linear metallic nature of the anomaly and GPR images consistent with buried debris.

Limitations

The geophysical survey described above was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology. Enviroscan does not accept responsibility for survey limitations due to inherent technological limitations or site-specific conditions. However, we make every effort to identify and notify the client of such limitations or conditions.

As always, we have appreciated this opportunity to have worked with you. If you have any questions, please do not hesitate to contact the undersigned.

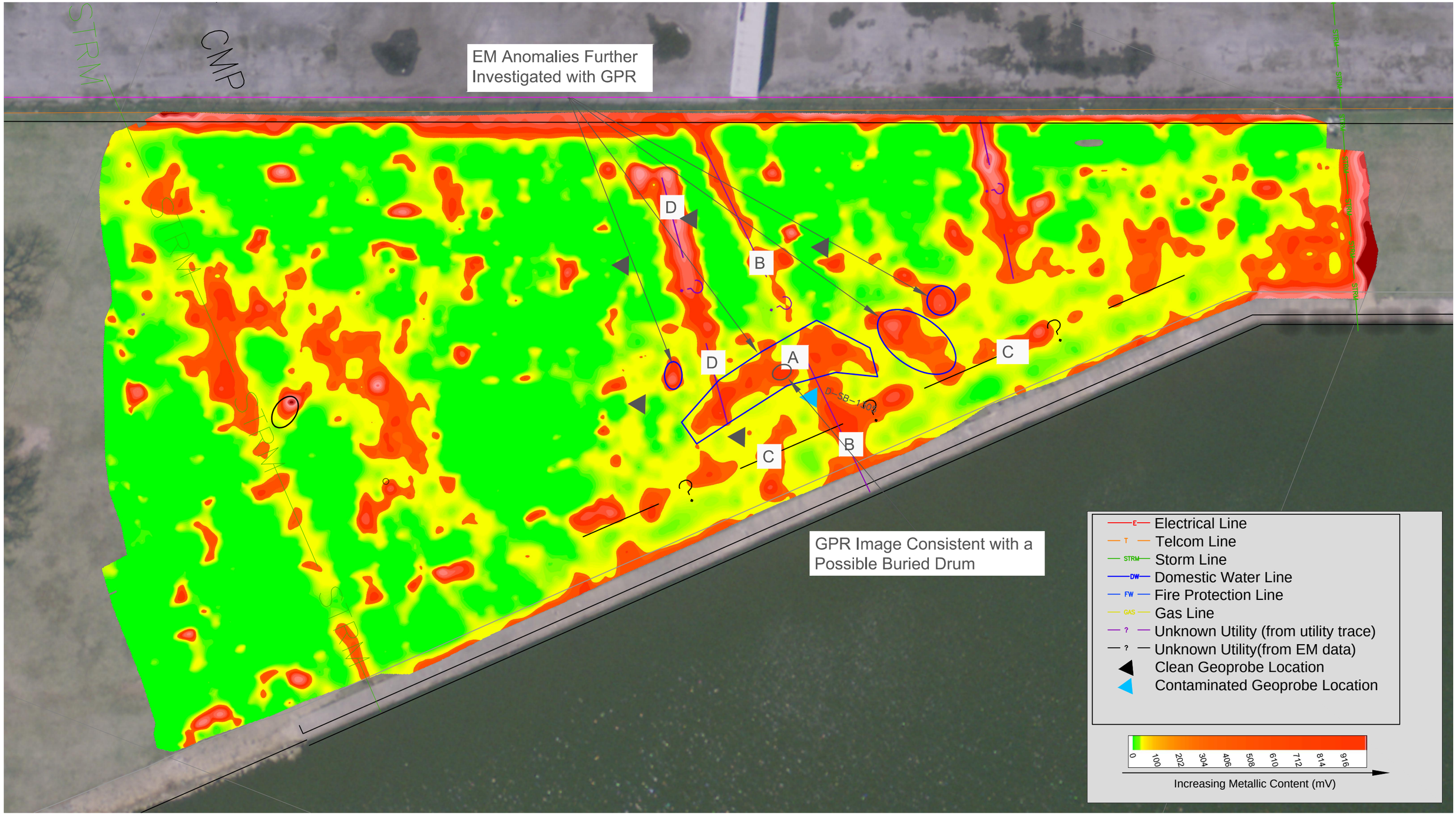
Sincerely,
Enviroscan, Inc.

William E. Steinhart III, M.Sc., P.G.
Senior Geophysics Project Manager

Technical Review By:
Enviroscan, Inc.

Felicia Kegel Bechtel, M.Sc., P.G.
President

enc.: Figure 1: EM-61 and GPR Survey Results, D Block



N

0ft 30ft 60ft

The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

EM-61 and GPR Survey Results D Block

D Block Survey Area
Middle River Complex
Middle River, MD

Figure **1**

Project Number	Survey Date	Drawn by:
051406	05/13/14	WES
Original Scale	Revision/Issue	Approved by:
1" = 30'	06/04/14	FKB

APPENDIX C—AIR-MONITORING DATA

Appendix C
Real Time Dust Tracking Data - August 06, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	07:30	0.023
	07:45	0.02
	08:00	0.013
	08:15	0.012
	08:30	0.011
	08:45	0.011
	09:00	0.011
	09:15	0.012
	09:30	0.012
	09:45	0.01
	10:00	0.011
	10:15	0.01
	10:30	0.01
	10:45	0.009
	11:00	0.011
	11:15	0.011
	11:30	0.019
	11:45	0.008
	12:00	0.008
	12:15	0.009
	12:30	0.007
	12:45	0.008
	13:00	0.008
	13:15	0.008
	13:30	0.008
	13:45	0.008
	14:00	0.008
	14:15	0.009
	14:30	0.008
	14:45	0.008
	15:00	0.008
Dust 2 (Downwind)	07:30	0.045
	07:45	0.019
	08:00	0.022
	08:15	0.017
	08:30	0.02
	08:45	0.014
	09:00	0.015
	09:15	0.015
	09:30	0.013
	09:45	0.011

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 06, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	10:00	0.01
	10:15	0.01
	10:30	0.01
	10:45	0.011
	11:00	0.01
	11:15	0.01
	11:30	0.011
	11:45	0.01
	12:00	0.013
	12:15	0.01
	12:30	0.01
	12:45	0.01
	13:00	0.011
	13:15	0.012
	13:30	0.011
	13:45	0.011
	14:00	0.011
	14:15	0.012
	14:30	0.012
	14:45	0.012
Dust 3 (Downwind)	07:30	0.003
	07:45	0.012
	08:00	0.013
	08:15	0.011
	08:30	0.01
	08:45	0.009
	09:00	0.009
	09:15	0.01
	09:30	0.008
	09:45	0.007
	10:00	0.006
	10:15	0.005
	10:30	0.004
	10:45	0.004
	11:00	0.003
	11:15	0.003
	11:30	0.004
	11:45	0.003
	12:00	0.003
	12:15	0.003
	12:30	0.003

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 06, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 3 (Downwind)	12:45	0.003
	13:00	0.003
	13:15	0.004
	13:30	0.003
	13:45	0.004
	14:00	0.004
	14:15	0.004
	14:30	0.005
	14:45	0.004

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 12, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	07:15	0.014
	07:30	0.017
	07:45	0.016
	08:00	0.016
	08:15	0.016
	08:30	0.016
	08:45	0.016
	09:00	0.016
	09:15	0.016
	09:30	0.017
	09:45	0.017
	10:00	0.017
	10:15	0.017
	10:30	0.018
	10:45	0.018
	11:00	0.018
	11:15	0.018
	11:30	0.019
	11:45	0.019
	12:00	0.02
	12:15	0.021
	12:30	0.023
	12:45	0.022
	13:00	0.019
	13:15	0.02
	13:30	0.019
	13:45	0.018
	14:00	0.018
	14:15	0.018
	14:30	0.02
	14:45	0.017
	15:00	0.016
	15:15	0.015
	15:30	0.015
	15:45	0.014
	16:00	0.014
Dust 2 (Downwind)	07:30	0.021
	07:45	0.021
	08:00	0.018
	08:15	0.018
	08:30	0.018

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 12, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	08:45	0.018
	09:00	0.018
	09:15	0.019
	09:30	0.02
	09:45	0.021
	10:00	0.021
	10:15	0.021
	10:30	0.021
	10:45	0.023
	11:00	0.023
	11:15	0.023
	11:30	0.03
	11:45	0.048
	12:00	0.033
	12:15	0.027
	12:30	0.029
	12:45	0.028
	13:00	0.026
	13:15	0.026
	13:30	0.025
	13:45	0.025
	14:00	0.025
	14:15	0.023
	14:30	0.023
	14:45	0.023
	15:00	0.022
	15:15	0.02
	15:30	0.019
Dust 3 (Downwind)	07:15	0.019
	07:30	0.019
	07:45	0.015
	08:00	0.018
	08:15	0.018
	08:30	0.017
	08:45	0.015
	09:00	0.016
	09:15	0.014
	09:30	0.015
	09:45	0.015
	10:00	0.015
	10:15	0.015

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 12, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 3 (Downwind)	10:30	0.016
	10:45	0.016
	11:00	0.016
	11:15	0.016
	11:30	0.031
	11:45	0.048
	12:00	0.042
	12:15	0.032
	12:30	0.061
	12:45	0.023
	13:00	0.017
	13:15	0.018
	13:30	0.016
	13:45	0.017
	14:00	0.015
	14:15	0.014
	14:30	0.016
	14:45	0.015
	15:00	0.014
	15:15	0.012
	15:30	0.011
	15:45	0.012

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 13, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	07:00	0
	07:15	0.006
	07:30	0.017
	07:45	0.02
	08:00	0.017
	08:15	0.017
	08:30	0.016
	08:45	0.016
	09:00	0.017
	09:15	0.016
	09:30	0.016
	09:45	0.015
	10:00	0.013
	10:15	0.012
	10:30	0.012
	10:45	0.012
	11:00	0.01
	11:15	0.016
	11:30	0.021
	11:45	0.015
	12:00	0.015
	12:15	0.02
	12:30	0.012
	12:45	0.022
	13:00	0.029
	13:15	0.013
	13:30	0.027
Dust 2 (Downwind)	07:00	0.007
	07:15	0.005
	07:30	0.007
	07:45	0.008
	08:00	0.005
	08:15	0.004
	08:30	0.008
	08:45	0.021
	09:00	0.014
	09:15	0.002
	09:30	0.002
	09:45	0.001
	10:00	0
	10:15	0

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 13, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	10:30	0
	10:45	0
	11:00	0
	11:15	0
	11:30	0
	11:45	0.001
	12:00	0.004
	12:15	-0.001
	12:30	-0.001
	12:45	0
	13:00	0
	13:15	0.001
	13:30	0.002
	13:45	0.003
Dust 3 (Downwind)	07:00	0.01
	07:15	0.017
	07:30	0.012
	07:45	0.012
	08:00	0.01
	08:15	0.009
	08:30	0.018
	08:45	0.02
	09:00	0.013
	09:15	0.006
	09:30	0.005
	09:45	0.003
	10:00	0.002
	10:15	0.002
	10:30	0.001
	10:45	0.002
	11:00	0.002
	11:15	0.002
	11:30	0.002
	11:45	0.001
	12:00	0.004
	12:15	0
	12:30	0.001
	12:45	0.001
	13:00	0.001
	13:15	0.001
	13:30	0.002

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 13, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 3 (Downwind)	13:45	0.001

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 14, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	06:45	0
	07:00	0.042
	07:15	0.023
	07:30	0.018
	07:45	0.021
	08:00	0.017
	08:15	0.02
	08:30	0.02
	08:45	0.018
	09:00	0.023
	09:15	0.019
	09:30	0.02
	09:45	0.02
	10:00	0.024
	10:15	0.018
	10:30	0.022
	10:45	0.019
	11:00	0.02
	11:15	0.018
	11:30	0.103
	11:45	0.024
	12:00	0.038
	12:15	0.019
	12:30	0.019
	12:45	0.032
	13:00	0.03
	13:15	0.023
	13:30	0.137
Dust 2 (Downwind)	07:00	0.023
	07:15	0.018
	07:30	0.018
	07:45	0.019
	08:00	0.02
	08:15	0.019
	08:30	0.019
	08:45	0.018
	09:00	0.017
	09:15	0.018
	09:30	0.019
	09:45	0.021
	10:00	0.022

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 14, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	10:15	0.022
	10:30	0.019
	10:45	0.02
	11:00	0.021
	11:15	0.024
	11:30	0.024
	11:45	0.024
	12:00	0.024
	12:15	0.026
	12:30	0.025
	12:45	0.025
	13:00	0.026
	13:15	0.027
	13:30	0.027
Dust 3 (Downwind)	07:00	0.012
	07:15	0.015
	07:30	0.032
	07:45	0.011
	08:00	0.005
	08:15	0.002
	08:30	0
	08:45	0.002
	09:00	-0.001
	09:15	0.001
	09:30	0.004
	09:45	0.003
	10:00	-0.002
	10:15	-0.001
	10:30	0.005
	10:45	0.004
	11:00	0.01
	11:15	-0.004
	11:30	-0.003
	11:45	-0.003
	12:00	-0.004
	12:15	-0.004
	12:30	0.003
	12:45	0.002
	13:00	-0.002
	13:15	-0.001
	13:30	0.006

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 19, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	07:15	0.05
	07:30	0.057
	07:45	0.052
	08:00	0.05
	08:15	0.047
	08:30	0.043
	08:45	0.042
	09:00	0.042
	09:15	0.04
	09:30	0.039
	09:45	0.039
	10:00	0.036
	10:15	0.03
	10:30	0.026
	10:45	0.026
	11:00	0.027
	11:15	0.025
	11:30	0.023
	11:45	0.021
	12:00	0.024
	12:15	0.025
	12:30	0.023
	12:45	0.022
	13:00	0.022
	13:15	0.021
	13:30	0.021
	13:45	0.02
	14:00	0.017
	14:15	0.019
	14:30	0.02
	14:45	0.02
	15:00	0.019
	15:15	0.018
	15:30	0.012
	15:45	0.009
	16:00	0.01
	16:15	0.011
	16:30	0.011
	16:45	0.011
Dust 2 (Downwind)	07:30	0.052
	07:45	0.064

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 19, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	08:00	0.088
	08:15	0.088
	08:30	0.126
	08:45	0.068
	09:00	0.091
	09:15	0.059
	09:30	0.067
	09:45	0.054
	10:00	0.094
	10:15	0.05
	10:30	0.071
	10:45	0.072
	11:00	0.072
	11:15	0.108
	11:30	0.065
	11:45	0.068
	12:00	0.066
	12:15	0.058
	12:30	0.082
	12:45	0.059
	13:00	0.045
	13:15	0.035
	13:30	0.035
	13:45	0.033
	14:00	0.032
	14:15	0.034
	14:30	0.045
	14:45	0.143
	15:00	0.073
	15:15	0.055
	15:30	0.042
	15:45	0.022
	16:00	0.023
	16:15	0.025
	16:30	0.031
Dust 3 (Downwind)	07:30	0.021
	07:45	0.025
	08:00	0.021
	08:15	0.036
	08:30	0.06
	08:45	0.053

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 19, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 3 (Downwind)	09:00	0.043
	09:15	0.044
	09:30	0.053
	09:45	0.043
	10:00	0.045
	10:15	0.044
	10:30	0.036
	10:45	0.035
	11:00	0.039
	11:15	0.045
	11:30	0.039
	11:45	0.04
	12:00	0.044
	12:15	0.034
	12:30	0.031
	12:45	0.035
	13:00	0.039
	13:15	0.037
	13:30	0.031
	13:45	0.031
	14:00	0.03
	14:15	0.032
	14:30	0.026
	14:45	0.034
	15:00	0.047
	15:15	0.028
	15:30	0.018
	15:45	0.019
	16:00	0.016
	16:15	0.014
	16:30	0

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 24, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	06:45	0.033
	07:00	0.042
	07:15	0.038
	07:30	0.04
	07:45	0.036
	08:00	0.024
	08:15	0.021
	08:30	0.023
	08:45	0.023
	09:00	0.022
	09:15	0.023
	09:30	0.023
	09:45	0.023
	10:00	0.023
	10:15	0.024
	10:30	0.026
	10:45	0.025
	11:00	0.053
	11:15	0.026
	11:30	0.034
	11:45	0.024
	12:00	0.023
	12:15	0.021
	12:30	0.021
	12:45	0.02
	13:00	0.022
	13:15	0.063
	13:30	0.024
	13:45	0.025
	14:00	0.026
	14:15	0.026
Dust 2 (Downwind)	07:00	0.039
	07:15	0.039
	07:30	0.059
	07:45	0.036
	08:00	0.027
	08:15	0.025
	08:30	0.027
	08:45	0.028
	09:00	0.028
	09:15	0.028

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 24, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	09:30	0.028
	09:45	0.03
	10:00	0.031
	10:15	0.033
	10:30	0.035
	10:45	0.034
	11:00	0.037
	11:15	0.037
	11:30	0.037
	11:45	0.035
	12:00	0.034
	12:15	0.033
	12:30	0.032
	12:45	0.032
	13:00	0.033
	13:15	0.034
	13:30	0.036
	13:45	0.037
	14:00	0.038
	14:15	0.039
Dust 3 (Downwind)	07:00	-0.058
	07:15	-0.044
	07:30	-0.051
	07:45	-0.057
	08:00	-0.063
	08:15	-0.065
	08:30	-0.071
	08:45	-0.071
	09:00	-0.066
	09:15	-0.067
	09:30	-0.059
	09:45	-0.055
	10:00	-0.064
	10:15	-0.07
	10:30	-0.069
	10:45	-0.066
	11:00	-0.071
	11:15	-0.067
	11:30	-0.066
	11:45	-0.044
	12:00	-0.057

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 24, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 3 (Downwind)	12:15	-0.035
	12:30	-0.055
	12:45	-0.052
	13:00	-0.051
	13:15	-0.047
	13:30	-0.049
	13:45	-0.054
	14:00	-0.068
	14:15	-0.067

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 25, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 1 (Upwind)	06:45	0.033
	07:00	0.047
	07:15	0.047
	07:30	0.038
	07:45	0.032
	08:00	0.031
	08:15	0.029
	08:30	0.032
	08:45	0.024
	09:00	0.023
	09:15	0.033
	09:30	0.02
	09:45	0.017
	10:00	0.015
	10:15	0.014
	10:30	0.013
	10:45	0.015
	11:00	0.017
	11:15	0.016
	11:30	0.018
	11:45	0.015
	12:00	0.017
	12:15	0.013
	12:30	0.017
	12:45	0.012
	13:00	0.012
	13:15	0.012
	13:30	0.012
	13:45	0.012
	14:00	0.013
	14:15	0.013
Dust 2 (Downwind)	07:00	0.042
	07:15	0.065
	07:30	0.051
	07:45	0.042
	08:00	0.045
	08:15	0.04
	08:30	0.032
	08:45	0.028
	09:00	0.026
	09:15	0.025

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 25, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 2 (Downwind)	09:30	0.023
	09:45	0.021
	10:00	0.018
	10:15	0.017
	10:30	0.016
	10:45	0.018
	11:00	0.021
	11:15	0.021
	11:30	0.019
	11:45	0.019
	12:00	0.032
	12:15	0.019
	12:30	0.025
	12:45	0.023
	13:00	0.011
	13:15	0.108
	13:30	0.151
	13:45	0.151
	14:00	0.151
Dust 3 (Downwind)	07:00	0
	07:15	0.021
	07:30	0.034
	07:45	0.024
	08:00	0.001
	08:15	0.005
	08:30	0.01
	08:45	0.005
	09:00	-0.002
	09:15	-0.005
	09:30	-0.003
	09:45	-0.006
	10:00	-0.003
	10:15	0.006
	10:30	0
	10:45	0.002
	11:00	0.004
	11:15	0
	11:30	-0.004
	11:45	0
	12:00	0.001
	12:15	-0.007

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Appendix C
Real Time Dust Tracking Data - August 25, 2015
Block D Construction Completion Report
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Dust Track Monitor Label	Recording Start Time	Average Dust (mg/m^3)
Dust 3 (Downwind)	12:30	-0.001
	12:45	0.001
	13:00	-0.002
	13:15	0
	13:30	0
	13:45	0
	14:00	0.004
	14:15	0

All dust concentrations are in milligram(s) per cubic meter air (mg/m^3).

Crystalline Silica Dust Personal Air Sampling Calculations
Soil Remedial Action - Blocks D, D Panhandle, F, G and H
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

MRF Order	CUSTOMER SAMP ID	COLLECT_ DATE	SAMPLE_DESC	Analyte	AIR VOLUME given to Test America	VOLUME UNIT	MRF Recalcs: Start (hr:min)	Stop (hr:min)	Elapsed time (minutes)	pre-cal	post-cal	Average	Liters	MRF calc	MRF calc mg/M3	% of TLV	QUAL	TOTAL
1	550-49409-1	8/12/2015	MRCBLDASOPRCSLO081215	Respirable Dust	1172		7:33	15:18	465	2.514	2.547	2.530	1177				<	< 0.05
2	550-49409-1	8/12/2015	MRCBLDASOPRCSLO081215	Cristobalite	1172	L	7:33	15:18	465	2.514	2.547	2.530	1177				<	< 0.005
3	550-49409-1	8/12/2015	MRCBLDASOPRCSLO081215	Quartz	1172	L	7:33	15:18	465	2.514	2.547	2.530	1177				<	< 0.005
4	550-49409-2	8/12/2015	MRCBLDASPER3CSLO081215	Respirable Dust	1141		7:36	15:18	462	2.519	2.446	2.482	1147				<	< 0.05
5	550-49409-2	8/12/2015	MRCBLDASPER3CSLO081215	Cristobalite	1141	L	7:36	15:18	462	2.519	2.446	2.482	1147				<	< 0.005
6	550-49409-2	8/12/2015	MRCBLDASPER3CSLO081215	Quartz	1141	L	7:36	15:18	462	2.519	2.446	2.482	1147				<	< 0.005
7	550-49409-5	8/12/2015	MBASCSLO081215-01	Respirable Dust	0		15:55	16:00	5	0.000	0.000	0.000	0				<	< 0.05
8	550-49409-5	8/12/2015	MBASCSLO081215-01	Cristobalite	0	L	15:55	16:00	5	0.000	0.000	0.000	0				<	< 0.005
9	550-49409-5	8/12/2015	MBASCSLO081215-01	Quartz	0	L	15:55	16:00	5	0.000	0.000	0.000	0				<	< 0.005
10																		
11	(550-49506-1)	8/13/2015	MRCBLDASCSLOPER3081315	Respirable Dust	960		7:06	13:38	392	2.610	2.558	2.584	1013				<	< 0.05
12	(550-49506-1)	8/13/2015	MRCBLDASCSLOPER3081315	Cristobalite	960	L	7:06	13:38	392	2.610	2.558	2.584	1013				<	< 0.005
13	(550-49506-1)	8/13/2015	MRCBLDASCSLOPER3081315	Quartz	960	L	7:06	13:38	392	2.610	2.558	2.584	1013				<	< 0.005
14	(550-49506-2)	8/13/2015	MRCBLDASCSOPLER2081315	Respirable Dust	960		7:06	13:45	399	2.600	2.566	2.583	1031				<	< 0.05
15	(550-49506-2)	8/13/2015	MRCBLDASCSOPLER2081315	Cristobalite	960	L	7:06	13:45	399	2.600	2.566	2.583	1031				<	< 0.005
16	(550-49506-2)	8/13/2015	MRCBLDASCSOPLER2081315	Quartz	960	L	7:06	13:45	399	2.600	2.566	2.583	1031				<	< 0.005
17	(550-49506-3)	8/13/2015	MRCBLDASCSOPLER1081315	Respirable Dust	960		7:12	13:50	398	2.600	2.475	2.537	1010	0.063	0.062	2.1%		0.063
18	(550-49506-3)	8/13/2015	MRCBLDASCSOPLER1081315	Cristobalite	960	L	7:12	13:50	398	2.600	2.475	2.537	1010				<	< 0.005
19	(550-49506-3)	8/13/2015	MRCBLDASCSOPLER1081315	Quartz	960	L	7:12	13:50	398	2.600	2.475	2.537	1010				<	< 0.005
20																		
21	550-50578-2	9/1/2015	MRCBLGASCSLOPRPAHL09115	Respirable Dust	984		9:00	16:00	420	2.514	2.547	2.530	1063	0.100	0.094		<	< 0.10
22	550-50578-2	9/1/2015	MRCBLGASCSLOPRPAHL09115	Cristobalite	984	L	9:00	16:00	420	2.514	2.547	2.530	1063				<	< 0.005
23	550-50578-2	9/1/2015	MRCBLGASCSLOPRPAHL09115	Quartz	984	L	9:00	16:00	420	2.514	2.547	2.530	1063				<	< 0.005
24	550-50578-3	9/1/2015	FDASCSLO09011501	Respirable Dust	682		**VOIDED because of pump problems**										<	< 0.10
25	550-50578-3	9/1/2015	FDASCSLO09011501	Cristobalite	682	L	**VOIDED because of pump problems**										<	< 0.005
26	550-50578-3	9/1/2015	FDASCSLO09011501	Quartz	682	L					COC volume >		682	0.016	0.023	94%		0.016
27																		
28	550-51650-1	9/23/2015	MRCBLDPASCSLOPR1092315	Respirable Dust	1056.3		7:33	13:33	360	2.500	2.530	2.515	905	0.055	0.061	2.0%		0.055
29	550-51650-1	9/23/2015	MRCBLDPASCSLOPR1092315	Cristobalite	1056.3	L	7:33	13:33	360	2.500	2.530	2.515	905				<	< 0.005
30	550-51650-1	9/23/2015	MRCBLDPASCSLOPR1092315	Quartz	1056.3	L	7:33	13:33	360	2.500	2.530	2.515	905				<	< 0.005
31	550-51650-2	9/23/2015	MBASCSLO092315-01	Respirable Dust	0		13:15	13:20	5	NA	NA	NA	NA				<	< 0.05
32	550-51650-2	9/23/2015	MBASCSLO092315-01	Cristobalite	0	L	13:15	13:20	5	NA	NA	NA	NA				<	< 0.005
33	550-51650-2	9/23/2015	MBASCSLO092315-01	Quartz	0	L	13:15	13:20	5	NA	NA	NA	NA				<	< 0.005
34					TLV													
35				Respirable Dust	3													
36				Cristobalite	0.025													
37				Quartz	0.025													

Crystalline Silica Dust Personal Air Sampling Calculations
Soil Remedial Action - Blocks D, D Panhandle, F, G and H
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

MRF Order	CUSTOMER SAMP ID	COLLECT_ DATE	SAMPLE_DESC	Analyte	AIR VOLUME given to Test America	VOLUME UNIT	REPORT LIMIT	MASS UNIT	TOTAL_CONC	CONC UNIT	MRF Comments
1	550-49409-1	8/12/2015	MRCBLDASOPRCSLO081215	Respirable Dust	1172		.05	mg	< 0.043	mg/M3	
2	550-49409-1	8/12/2015	MRCBLDASOPRCSLO081215	Cristobalite	1172	L	0.005	mg	< 0.004	mg/M3	
3	550-49409-1	8/12/2015	MRCBLDASOPRCSLO081215	Quartz	1172	L	0.005	mg	< 0.004	mg/M3	
4	550-49409-2	8/12/2015	MRCBLDASPER3CSLO081215	Respirable Dust	1141		.05	mg	< 0.044	mg/M3	
5	550-49409-2	8/12/2015	MRCBLDASPER3CSLO081215	Cristobalite	1141	L	0.005	mg	< 0.004	mg/M3	
6	550-49409-2	8/12/2015	MRCBLDASPER3CSLO081215	Quartz	1141	L	0.005	mg	< 0.004	mg/M3	
7	550-49409-5	8/12/2015	MBASCSLO081215-01	Respirable Dust	0		.05	mg	--	mg/M3	
8	550-49409-5	8/12/2015	MBASCSLO081215-01	Cristobalite	0	L	0.005	mg	--	--	
9	550-49409-5	8/12/2015	MBASCSLO081215-01	Quartz	0	L	0.005	mg	--	--	
10											
11	(550-49506-1)	8/13/2015	MRCBLDASCSLOPER3081315	Respirable Dust	960		.05	mg	< 0.052	mg/M3	
12	(550-49506-1)	8/13/2015	MRCBLDASCSLOPER3081315	Cristobalite	960	L	0.005	mg	< 0.005	mg/M3	
13	(550-49506-1)	8/13/2015	MRCBLDASCSLOPER3081315	Quartz	960	L	0.005	mg	< 0.005	mg/M3	
14	(550-49506-2)	8/13/2015	MRCBLDASCSOPLER2081315	Respirable Dust	960		.05	mg	< 0.052	mg/M3	
15	(550-49506-2)	8/13/2015	MRCBLDASCSOPLER2081315	Cristobalite	960	L	0.005	mg	< 0.005	mg/M3	
16	(550-49506-2)	8/13/2015	MRCBLDASCSOPLER2081315	Quartz	960	L	0.005	mg	< 0.005	mg/M3	
17	(550-49506-3)	8/13/2015	MRCBLDASCSOPLER1081315	Respirable Dust	960		.05	mg	0.066	mg/M3	Well below ACGIH TLV of 3 mg/M3
18	(550-49506-3)	8/13/2015	MRCBLDASCSOPLER1081315	Cristobalite	960	L	0.005	mg	< 0.005	mg/M3	
19	(550-49506-3)	8/13/2015	MRCBLDASCSOPLER1081315	Quartz	960	L	0.005	mg	< 0.005	mg/M3	
20											
21	550-50578-2	9/1/2015	MRCBLGASCSLOPRPAHL09115	Respirable Dust	984		0.05	mg	< 0.051	mg/M3	
22	550-50578-2	9/1/2015	MRCBLGASCSLOPRPAHL09115	Cristobalite	984	L	0.005	mg	< 0.005	mg/M3	
23	550-50578-2	9/1/2015	MRCBLGASCSLOPRPAHL09115	Quartz	984	L	0.005	mg	< 0.005	mg/M3	
24	550-50578-3	9/1/2015	FDASCSLO09011501	Respirable Dust	682		0.05	mg	< 0.073	mg/M3	
25	550-50578-3	9/1/2015	FDASCSLO09011501	Cristobalite	682	L	0.005	mg	< 0.007	mg/M3	
26	550-50578-3	9/1/2015	FDASCSLO09011501	Quartz	682	L	0.005	mg	0.023	mg/M3	Very Close to the ACGIH TLV of 0.025 mg/M3
27											
28	550-51650-1	9/23/2015	MRCBLDPASCSLOPR1092315	Respirable Dust	1056.3		.05	mg	0.052	mg/M3	Well below ACGIH TLV of 3 mg/M3
29	550-51650-1	9/23/2015	MRCBLDPASCSLOPR1092315	Cristobalite	1056.3	L	0.005	mg	< 0.005	mg/M3	
30	550-51650-1	9/23/2015	MRCBLDPASCSLOPR1092315	Quartz	1056.3	L	0.005	mg	< 0.005	mg/M3	
31	550-51650-2	9/23/2015	MBASCSLO092315-01	Respirable Dust	0		.05	mg	--	mg/M3	
32	550-51650-2	9/23/2015	MBASCSLO092315-01	Cristobalite	0	L	0.005	mg	--	--	
33	550-51650-2	9/23/2015	MBASCSLO092315-01	Quartz	0	L	0.005	mg	--	--	
34					TLV						
35				Respirable Dust	3						
36				Cristobalite	0.025						
37				Quartz	0.025						

PAH Personal Air Sampling Calculations
Soil Remedial Action - Blocks D, D Panhandle, F, G and H
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

						MRF reCalcs														
MRF Order	**Sample**	**Sample Name**	**Units**	**Sample Description**	**Sample Date**	**Start (hr:min)**	**Stop (hr:min)**	**Elapsed time (minutes)**	**pre-cal**	**post-cal**	**Average**	**Liters**	**< ?**	**ug (PAH) reported in sample**	**< ?**	**Air Concentration mg/M3**	**Air Concentration ppm**	**% of TLV**	**Analyte**	**Comments**
1	550-49409-3	MRCBLDASOPRPAHL081215	mg/m3	Air sample taken in the Operators cab of the excavator during excavation.	8/12/2015	8:01	15:18	437	1.990	1.990	1.990	870		3.130		0.00360	0.0007	0.0069%	naphthalene (only PAH detected)	Well below ACGIH TLV of 10 ppm
2	550-49506-4	MRCBLDASPAHLOPR081315	mg/m3	Air sample taken in the Operators cab of the excavator during excavation.	8/13/2015	7:45	13:30	345	2.038	2.027	2.032	701		1.070		0.00153	0.0003	0.0029%	naphthalene (only PAH detected)	Well below ACGIH TLV of 10 ppm
3	550-49506-5	MRCBLDASPAHLGRD081315	mg/m3	Air sample taken of the ground support person during excavation in Block D	8/13/2015	7:50	13:28	338	2.005	1.936	1.970	666		1.460		0.00219	0.0004	0.0042%	naphthalene (only PAH detected)	Well below ACGIH TLV of 10 ppm
4	550-50578-1	MRCBLGASPAHLOPR090115	mg/m3	Air sample taken of the excavator operator in Block G PAHs	9/1/2015	9:00	16:00	420	Pump Problems		--	--	<		<	--			naphthalene (only PAH detected)	
5	550-51650-3	MRCBLDPASPAHLOPR092315	mg/m3	Air sample taken in the Operators cab of the excavator during excavation in Block D on 09/23/2015	9/23/2015	7:33	13:33	360	2.010	1.970	1.990	716	<		<	0.000			naphthalene (only PAH detected)	
6	550-49409-4	MBASPAHL081215-01	ug/Sample	Method Blank	8/12/2015			0					<		<				naphthalene (only PAH detected)	
7	550-49506-6	FDASPAHL081315-01	mg/m3	Field Duplicate	8/13/2015	7:45	13:30	345	2.041	1.915	1.978	682	<	1.160	<	0.00170	0.0003	0.0032%	naphthalene (only PAH detected)	Well below ACGIH TLV of 10 ppm
8	550-49506-7	MBASPAHL081315-01	ug/Sample	Method Blank	8/13/2015			0					<		<				naphthalene (only PAH detected)	
9	550-50578-4	MBASPAHL09115-01	ug/Sample	Method Blank	9/1/2015			0					<		<				naphthalene (only PAH detected)	
10	550-51650-4	MBASPAHL092315-01	ug/Sample	Method Blank	9/23/2015			0					<		<				naphthalene (only PAH detected)	

Tetra Tech NUS, Inc. **CHAIN OF CUSTODY** NO. 081215-001

Project No:	Facility:	Project Manger:	Phone:	Laboratory Name and Contact:
112IC07483	LMC/MRC	Scott Nesbit	412.921.7134	Test America - Attn: Ms. Carlene McCutcheon 602.437.3340
Samplers: Sampler: Thomas M. Dickson		Field Ops. Leader: Jim Ferguson	Phone: 412.496.9283	Address: 4625 East Cotton Center Blvd Ste 189
Thomas M Dickson		Fed Ex Airbill Number: Courier		City, State, Zip: Phoenix, Arizona 85040

Date Year: 2015	Time	Sample ID	Location ID	Air Intake (FT)	Elapsed time (minutes)	Average Flow rate (lpm)	Total volume (Liters)	Total No. of Containers	ANALYSIS	Container Type: Plastic (P) or Glass (G) P/G	Preservative Used: 0°C	Poly-nucleated Aromatic hydrocarbons, NIOSH Method 5506; 37mm Cassette/XAD-2 Tube 100mg/50mg	Crystallie Silca, NIOSH Method 7500; 37mm cassette						Comments
										P									
8/12	0733 start 1518 end	MRCBLDASOPRCSLO081215	OPR CAB	BZ 36 in	465	2.52	1172	1					1						307219/10.547mg
8/12	0736 start 1518 end	MRCBLDASPER3CSLO081215	Perimeter Dnwind	62 inches	462	2.47	1141	1					1						307222/10.948mg
8/12	0801 start 1518 end	MRCBLDASOPRPAHL081215	OPR CAB	BZ 36 in	436	2	872	1				1							1 tube + prefilter
8/12	1555 start 1600 end	MBASPAHL081215-01	QAQC	NA	5	0	0	1				1							Method Blank @ Opr Cab
8/12	1555 start 1600 end	MBASCSLO081215-01	QAQC	NA	5	0	0	1					1						Method Blank @ Station 3

1. Relinquished By:	Thomas M. Dickson	Date: 08/12/15	Time: 1700	1. Received By: Paul Gayleard	Date: 12-Aug-15	Time: 1700
2. Relinquished By:		Date:	Time:	2. Received By:	Date:	Time:

Comments: PAH samples will be protected from Ultra-violet light degradation. Collected samples will be wrapped in aluminum foil. PAH samples will also be cooled to 0°C for storage and shipment.

Tetra Tech NUS, Inc. **CHAIN OF CUSTODY** NO. 081315-001

Project No:	Facility:	Project Manger:	Phone:	Laboratory Name and Contact:
112IC07483	LMC/MRC	Scott Nesbit	412.921.7134	Test America - Attn: Ms. Carlene McCutcheon 602.437.3340
Samplers: Sampler: Thomas M. Dickson		**Field Ops. Leader:** Jim Ferguson	**Phone:** 412.496.9283	**Address:** 4625 East Cotton Center Blvd Ste 189
		Fed Ex Airbill Number: Courier		**City, State, Zip:** Phoenix, Arizona 85040

Container Type: Plastic (P) or Glass (G)										P/G	P								
Preservative Used:										0°C									
Date Year: 2015	**Time**	**Sample ID**	**Location ID**	**Air Intake (FT)**	**Elapsed time (minutes)**	**Average Flow rate (lpm)**	**Total volume (Liters)**	**Total No. of Containers**	**ANALYSIS**	*Poly-nucleated Aromatic hydrocarbons, NIOSH Method 5506; 37mm Cassette/XAD-2 Tube*	*Crystallie Silca, NIOSH Method 7500; 37mm cassette*								**Comments**
8/13	0706 start 1350 end	MRCBLDASCSLOPER3081315	Perimeter Dnwind	66 inches	452	2.58	1168	1			1								307200/11.277mg
8/13	0706 start 1345 end	MRCBLDASCSLOPER2081315	Perimeter Dnwind	66 inches	459	2.58	1184	1			1								307234/13.909mg
8/13	0712 start 1338 end	MRCBLDASCSLOPER1081315	Perimeter Upwind	66 inches	458	2.53	1162	1			1								307217/10.462mg
8/13	0745 start 1330 end	MRCBLDASPAHLOPR081315	Opr Sitting position	36 inches	345	2.03	701	2		2									XAD TUBE AND PREFILTER
8/13	0750 start 1328 end	MRCBLDASPAHLGRD081315	Grd Spotter Mobile	60 inches	338	1.97	666	2		2									XAD TUBE AND PREFILTER
8/13	0000	FDASPAHL081315-01	QAQC	0000	0	1.97	682	2		2									XAD TUBE AND PREFILTER
8/13	1400 Start 1405 End	MBASPAHL081315-01	QAQC	NA	5	0	0	1		2									XAD TUBE AND PREFILTER

1. Relinquished By: Thomas M. Dickson	**Date:** 08/13/15	**Time:** 1700	**1. Received By:** Paul Gayleard	**Date:** 13-Aug-15	**Time:** 1700
2. Relinquished By:	**Date:**	**Time:**	**2. Received By:**	**Date:**	**Time:**

Comments: PAH samples will be protected from Ultra-violet light degradation. Collected samples will be wrapped in aluminum foil. PAH samples will also be cooled to 0°C for storage and shipment.

Tetra Tech NUS, Inc. **CHAIN OF CUSTODY** NO. 09115-001

Project No:	Facility:	Project Manger:	Phone:	Laboratory Name and Contact:
112IC07483	LMC/MRC	Scott Nesbit	412.921.7134	Test America - Attn: Ms. Carlene McCutcheon 602.437.3340
Samplers: Sampler: Clyde Snyder		**Field Ops. Leader:** Jim Ferguson	**Phone:** 412.496.9283	**Address:** 4625 East Cotton Center Blvd Ste 189
		Fed Ex Airbill Number: Courier		**City, State, Zip:** Phoenix, Arizona 85040
		Container Type: Plastic (P) or Glass (G)	P/G	P
		Preservative Used:	0°C	

Date Year: 2015	Time	Sample ID	Location ID	Air Intake (FT)	Elapsed time (minutes)	Average Flow rate (lpm)	Total volume (Liters)	Total No. of Containers	ANALYSIS	Poly-nucleated Aromatic hydrocarbons, NIOSH Method 5506; 37mm Cassette/XAD-2 Tube	Crystalile Silca, NIOSH Method 7500; 37mm cassette							Comments
9/1	0900 start 1600 end	MRCBLGASPAHLOPR090115	Opr Sitting position	40 inches	~~480~~ 420	~~2.5~~ 2.1	~~984~~ 840	2		2								XAD TUBE AND PREFILTER
9/1	0900 start 1600 end	~~SCSLO~~ MRCBLGASCSLOPRPAHL090115	Opr Sitting position	40 inches	~~480~~ 420	2.5	~~984~~ 1050	2			1							Sampler, cyclone and filter
9/1	0900 start 1600 end	FDASCSLO09011501	QAQC	0000	0	~~1.97~~	682	1			1							cyclone and filter
9/1	0900 start 1600 end	MBASPAHL09115-01	QAQC	NA	5	0	0	1		2								XAD TUBE AND PREFILTER

1. Relinquished By:	Clyde Snyder	Date: 09/02/15	Time: 800	1. Received By: Paul Gayleard	Date: 2-Sep-15	Time:
2. Relinquished By:		Date:	Time:	2. Received By:	Date:	Time:

Comments: PAH samples will be protected from Ultra-violet light degradation. Collected samples will be wrapped in aluminum foil. PAH samples will also be cooled to 0°C for storage and shipment.

Tetra Tech NUS, Inc. | **CHAIN OF CUSTODY** | NO. 09232015-001 |

Project No:	Facility:	Project Manger:	Phone:	Laboratory Name and Contact:
112IC07483	LMC/MRC Soil Remedy Tax Blocks D; D-P; F; G; &H	Scott Nesbit	412.921.7134	Test America - Attn: Ms. Carlene McCutcheon 602.437.3340
Samplers: Sampler: Thomas M. Dickson Thomas M Dickson		**Field Ops. Leader:** Jim Ferguson	**Phone:** 412.496.9283	**Address:** 4625 East Cotton Center Blvd Ste 189
		Fed Ex Airbill Number: Courier		**City, State, Zip:** Phoenix, Arizona 85040
		Container Type: Plastic (P) or Glass (G)	P/G	P
		Preservative Used:	0°C	

Date Year: 2015	Time	Sample ID	Location ID	Air Intake (FT)	Elapsed time (minutes)	Average Flow rate (lpm)	Total volume (Liters)	Total No. of Containers	ANALYSIS	Poly-nucleated Aromatic hydrocarbons, NIOSH Method 5506; 37mm Cassette/XAD-2 Tube 100mg/50mg	Crystallie Silica, NIOSH Method 7500; 37mm cassette	Comments
9/23	0733 Start 1333 End	MRCBLDPASCSLOPR1092315	Personal Operator	36 inches	420	2.515	1056.3	1			1	319007/10.103mg
9/23	1315 Start 1320 End	MBASCSLO092315-01	QAQC	NA	5	0	0	1			1	319025/ 10.831MG
9/23	0733 Start 1333 End	MRCBLDPASPAHLOPR092315	Personal Operator	36 inches	420	1.99	835.8	2		2		XAD TUBE AND PREFILTER Lot# 34941-Filter/9209 tube Exp Date June 2019 preserve to 4°C
9/23	1315 Start 1320 End	MBASPAHL092315-01	QAQC	NA	5	0	0	2		2		XAD TUBE AND PREFILTER Lot# 34941-Filter/9209 tube Exp Date June 2019 preserve to 4°C

1. Relinquished By:	Thomas M. Dickson	Date: 09/23/15	Time: 1500	1. Received By: Paul Gayleard	Date: 23-Sep-15	Time: 1500
2. Relinquished By:		Date:	Time:	2. Received By:	Date:	Time:

Comments: PAH samples will be protected from Ultra-violet light degradation. Collected samples will be wrapped in aluminum foil. PAH samples will also be cooled to 0°C for storage and shipment.

Dust Control and Air Monitoring and Sampling Plan for Soil Remedy Construction for Blocks D, D Panhandle, F, G, and H Lockheed Martin Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

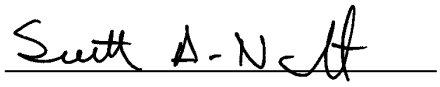
Prepared by:

Tetra Tech, Inc.

April 2015



Michael Martin, P.G.
Regional Manager



Scott Nesbit, PE
Project Manager

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ACRONYMS

µg/m^3	microgram(s) per cubic meter
µm	micron (micrometer)
ABIH	American Board of Industrial Hygiene
ACGIH	American Conference of Industrial Hygienists
AIHA	American Industrial Hygiene Association
CAS	Chemical Abstract Services
CIH	Certified Industrial Hygienist
COC	chain of custody
CSLO	crystalline silica
HD	Higgins-Dewell
IH	industrial hygiene; industrial hygienist
Lockheed Martin	Lockheed Martin Corporation
mg	milligram
mg/m^3	milligram per cubic meter
mm	millimeter
MRC	Middle River Complex
NA	not applicable or not available
NIOSH	National Institute for Occupational Safety and Health
NMAM	NIOSH Manual of Analytical Methods
OSHA	Occupational Safety and Health Administration
PAHs	polycyclic aromatic hydrocarbons
PAHL	polycyclic aromatic hydrocarbons- low volume
PEL	permissible exposure limit
PTFE	polytetrafluoroethylene
QC	quality control
R	respirable
RTDs	real-time detection
T	thoracic
Tetra Tech	Tetra Tech, Inc.
TLV-TWA	threshold limit value-time weighted average
USEPA	United States Environmental Protection Agency

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Section 1
Introduction

This dust control and air monitoring and sampling plan describes the monitoring procedures that will be used during soil excavation and remediation activities to control airborne and air-driven dusts. Airborne dusts can be generated during the following excavation and remediation activities:

- Excavation of contaminated soil within identified tax blocks –Potential dust generation is anticipated to be low to moderate, and easily controlled via water misting.

- Loading and unloading of transportation vehicles – Potential dust generation is anticipated to be low to moderate, and can occur during transfer of excavated material from the excavator or loader into the transportation vehicle, or during restoration when trucks dump backfill material on-site. Loading at a higher vantage point increases mechanical agitation, thereby increasing potential dust generation. Dust generation is expected to decrease as more material is loaded into the vehicle and drop distance decreases. Dust generated during loading activities can be easily controlled by misting soil with water, and by soil transit.

- Degradation of haul roads or construction entrance resulting from heavy traffic use – Potential dust generation is anticipated to be moderate to high. As the road surface pulverizes it becomes more easily airborne. However, travel distances are minimal, and generated dust can be easily controlled via water misting.

- Tracking soils from tax blocks onto improved and unimproved roadways – Potential for dust generation is anticipated to be low. To minimize this potential, trucks will be examined prior to leaving the Tax block for residual soils (mud on the tires). In these cases, the trucks will be routed through the adjacent decontamination unit for pressure washing wheels, tires, and undercarriage before exiting onto in-plant and public thoroughfares.

Airborne dusts may also result from high winds. In addition, any eroded soil or sediment resulting from rainfall can also dry out and become airborne if agitated. The implementation of the Erosion and Sediment Control Plan (Tetra Tech, March 2015) is designed to prevent this from occurring.

In general, dust generation can be controlled by misting dry soil and road surfaces, by keeping soil stockpiles covered and/or vegetated (based on anticipated storage time) and by managing soil excavation, dumping and grading operations.

Section 2
Dust Suppression Methods

Dust generation is mitigated by applying water to knock down or pre-saturate media, thereby preventing particulates from becoming airborne during mechanical action. Substances that draw or retain water (e.g., calcium chloride) can be added to the water to extend the suppression period. Calcium chloride can also be applied to road or other exposed soil surfaces directly, either as a solid or as a 30% solution. Dust generation can be minimized as follows:

- Water trucks with spray nozzles and hose attachments will be used to mist surfaces used by vehicles; a hose can be used for spot treatment and where necessary during loading and unloading operations.

- Separate portable tanks and systems can be placed at the decontamination pad, at the wheel wash and stabilized construction entrance.

- Power brooms can be used to collect and remove soil and sediment from improved surfaces and from paved travel routes. These devices are equipped with water tanks to minimize dust generation during sweeping/collection.

- Correct placement of the stabilized construction entrance and decontamination pad in relationship to public roadways can help limit construction dust to the work area. Vehicles will be decontaminated by washing to remove stuck on soil and sediment. The stabilized construction entrance will shake off material on wheels and tires, and provide a final soil collection point within the tax block (in the contamination reduction zone).

- Housekeeping – Prompt cleanup of soil spilled during loading/transport helps prevent spread and cross contamination both within, and the spread of contamination outside of the tax block.

- Soil staging areas/soil stockpiles – Excavated soil will be staged in piles and covered to prevent erosion including dust spread by overland transport of soil by runoff. Backfill soil can be stockpiled and vegetated to minimize erosion until it is needed.

2.1 DUST SUPPRESSION ON IMPROVED ROAD SURFACES

As stated in previous text, efforts to reduce dust on improved road surfaces will be made through:

- Vigilant inspections of vehicles leaving the construction sites
- Diligent employment of the decontamination process to remove visual soils from trucks/trailers and
- Through proper construction and maintenance of engineered temporary control measures including stabilized construction entrances and erosion and sediment control traps to control migration of soils from trucks to these areas.

Normal travel areas such as paved on-facility roads and improved surfaces (e.g., parking lots) will be visually monitored to ensure soil and sediment are not tracked onto these surfaces. If it is, the following actions will take place:

1. Load outs and deliveries will be temporarily suspended until source is identified and cleaned.
2. The frequency of housekeeping measures will be increased to minimize and, if possible, eliminate reoccurrence. The frequency of wheel washing before leaving the tax block will also be increased if necessary, as will the frequency of wet sweeping paved on-facility roads and parking lots.
3. Power broom affected areas will be wet to remove residual accumulation. If necessary, a combination of the water truck and power broom can be used.

2.2 DUST SUPPRESSION ON AGGREGATE BASED HAUL ROADS

The degradation of on-site haul roads can be one of the largest contributors to airborne dusts during remediation activities. Quarried limestone will be used to stabilize the construction entrance, and as a construction aggregate for driving surfaces. Dust generation if it occurs would be expected to be higher at turnaround points, sharp turns, and changes in elevation, where the surface is worn due to repeated traffic patterns that pulverize surface materials. As traffic moves over the surface, particulates are reduced in size and can become airborne more easily. To combat these effects, the following dust control measures will be used on haul roads:

- As the surface becomes more worn and pulverized, dust will become more of an issue. The water truck will be used more frequently to control dust emissions as the road degrades. Note that over-watering can cause slurry conditions that will result in tracking the material onto roadways, and therefore must be prevented. It should be noted that with the length of the planned haul roads within the tax blocks and the sizes of the stone to be used in the stabilized construction entrances, the slurrying aspect is considered negligible but recognized.

- To further control fugitive dust production on unpaved haul roads, solid calcium chloride or a calcium chloride solution (in water) can be applied. Calcium chloride attracts and retains moisture and helps keep the road surface slightly damp, thus reducing dust production. A 30% calcium chloride solution can also be applied. Calcium chloride binds with lime due to its chemical composition; the magnesium within the limestone/dolomite forms a crust that helps to retain fines and minimize dust generation and erosion.

- Areas of more vulnerable to severe pulverization may be resurfaced with additional aggregate and watered and re-compacted more frequently to maintain the surface.

Haul roads and impervious areas are used to provide a travel surface, but also provide separation from the underlying contaminated soil in the exclusion zone. Therefore, the following controls must be diligently applied

- Good housekeeping - Personnel must diligently clean up contaminated soil spills on pervious and impervious surfaces to avoid potential cross-contamination through construction vehicles tracking the materials into unaffected areas.

- Decontamination - Trucks/Trailers will be routed through the decontamination pad so that wheels and tires can be pressure-washed before exiting over the stabilized construction entrance as an additional control measure to prevent contaminated and uncontaminated construction materials from leaving the exclusion and/or contamination reduction zone.

- Visual inspection – Only trucks/trailers visually inspected and approved as clean will be released from the site.

Public or private roadways within the facility will be visually monitored for the presence of tracked construction materials (limestone residue; surface soil, etc.), and will be addressed according to procedures outlined in Section 2.1, which would be to wet broom any indication of limestone residue from the affected roadways. The plan view drawing for each tax block indicates wheel wash locations, vehicle exit points, and excavation limits. These are provided in Appendix A.

2.3 CRYSTALLINE SILICA

To assess the potential for exposure to crystalline silica (quartz), bulk samples will be collected to evaluate percentage composition to determine if silica is present in greater than 1% composition. In addition, respirable air samples will be collected to determine if airborne concentrations of crystalline silica within airborne dusts also are present in concentrations greater than 0.05mg/m^3. Dolomitic limestone will be used as a construction aggregate in construction entrances and as a wear surface for haul roads and is a potential source for crystalline silica. Table 2-1, LaFarge Material Safety Data Sheet excerpt contains a list of dolomitic limestone geochemical constituents and associated percent concentrations.

Additionally, the soils to be excavated may also contain crystalline silica and will serve as a potential source contributor.

2.4 DUST DETECTION USING REAL-TIME DETECTION (RTD) MONITORING EQUIPMENT

Dust control efforts for larger particles (greater than 7.0 microns [µm] in concentrations greater than 3.0 milligrams per cubic meter [mg/m^3] air) will be assessed visually, but dust outside the visible spectrum (less than 7.0 µm in size and less than 3.0 mg/m^3 in concentration) will be assessed via real time detection (RTD) monitoring instrumentation that measures airborne concentrations of respirable particulates.

Respirable fractions can pass deeper into the lungs and can pose a potential local (acute) and systemic (chronic) hazard and affect human health.

Respirable particulates may be expelled during exhalation; trapped within the mucus and expelled through the mucociliary tract, or become lodged in the lungs. Because respirable dusts due to their size cannot be seen by the naked eye, visual observations cannot be used for its control. Frequent water application during any dust generating activities, and/or in response to traffic density, will be used as a precautionary control measure. However, RTD readings must be used to assess the effectiveness of (respirable) dust control. The RTD monitor will be linked via telemetry to transmit alerts or texts when action levels are being approached, so that controls can be instituted before action levels are exceeded.

Permissible Exposure Limits (PELs)/Time Weighted Averages (TWAs)

Through an evaluation of previous soil media sampling results of the materials to be excavated, mathematical evaluations were conducted to determine potential airborne concentrations (worst case scenario) based on source concentrations of various identified contaminants. These values were compared to PELs/TWAs to determine if an exceedance of these limits were theoretically possible. The following information are the PELs/TWAs for the contaminants of concern:

- Crystalline silica [American Conference of Industrial Hygienists (ACGIH) — 0.025 mg/m^3 (used to screen the limestone used for haul roads [up to 20% may be comprised of crystalline silica – quartz] and soil components) from a selected representative excavation.

- Polycyclic aromatic hydrocarbons (PAHs) — 0.2 mg/m^3 as coal tar pitch volatiles — used to screen the excavated soil components from selected representative tax blocks.

- Metals (arsenic and hexavalent chromium) (0.01 mg/m^3 and 0.005mg/m^3, respectively) were reported in very low concentrations within bulk samples collected on the surface. Mathematical calculations indicate there are insufficient source concentrations to present an inhalation exposure concern. However, as these materials are a solid, they will be captured in the RTD result.

RTD Action Levels

The following action levels will be used for all PAHs laden soils (including BaPEq) (as determined by the evaluation of soil concentrations) and percent silica:

Tax Block D:—5 mg/m^3 - Based on the highest reported concentration (22,517µg/kg) of Benzo(a)pyrene Equivalent (BaPEq); dust concentrations would have to exceed over 2,000 mg/m^3 to represent an exposure concern to this specific BaPEq compound. Of this Total dust value, the respirable dust faction will represent only a small fraction. Therefore this action level is considered very conservative.

Tax Block D-Panhandle:—5 mg/m^3 - Based on the highest reported concentration (6,008 µg/kg) of Benzo(a)pyrene Equivalent (BaPEq); hexavalent chromium 1.2 µg/kg. Airborne dust concentrations would have to be well in excess of 600,000 mg/m^3 to exceed the mixture PEL/TWA for these compounds. Of this Total dust value, the respirable dust faction will represent only a small fraction. Therefore this action level is considered very conservative.

Tax Block F:—5 mg/m^3 - Based on the highest reported concentration (38,098µg/kg) of Benzo(a)Pyrene Equivalent (BaPEq), dust concentrations would have to exceed 1,315 mg/m^3 in order to represent an exposure concern to exceed the PEL/TWA for this compound. Of this Total dust value, the respirable dust faction will represent only a small fraction. Therefore this action level is considered very conservative.

Tax Block G:—5 mg/m^3 - Based on the highest reported concentration (24,698µg/kg) of Benzo(a)pyrene Equivalent (BaPEq), dust concentrations would have to exceed 1315 mg/m^3 in order to represent an exposure concern to exceed the PEL/TWA for this compound. Note: One sample G-TP-D-N with a reported concentration of 230,000µg/kg, would require airborne dust levels to exceed 217 mg/m^3 in order to present an exposure concern to this compound. Of this Total dust value, the respirable dust faction will represent only a small fraction. Therefore this action level is considered very conservative.

Tax Block H:—5 mg/m^3 Based on the highest reported concentration (460,008µg/kg) of Benzo(a)Pyrene Equivalent (BaPEq), dust concentrations would have to exceed 1,087 mg/m^3 in order to represent an exposure concern to exceed the PEL/TWA for this compound. Of this Total dust value, the respirable dust faction will represent only a small fraction. Therefore this action level is considered very conservative.

Given the reported soil concentrations and excavation dimensions, it is unlikely that exceedances greater than a chemical-specific time-weighted average - threshold limit values (TWA-TLVs) or permissible exposure limits (PELs) will be observed In addition, these action levels represent 50% of the concentration associated with overexposure, making the action levels even more conservative and protective of human health. These action levels also provide protection from total and respirable dust particulates not otherwise classified.

Table 2-1

LaFarge Materials Safety Data Sheet Excerpt,
Chemical Composition – Limestone and Dolomite
Lockheed Martin, Middle River Complex

Component	Percent (By Weight)	CAS Number	OSHA PEL -TWA (mg/m^3)	ACGIH TLV-TWA (mg/m^3)	LD_{50}	LC_{50}
Calcium Carbonate*	50-100	1317-65-3	15 (T), 5 (R)	10 (T)	NA	NA
Magnesium Carbonate*	0-50	546-93-0	15 (T), 5 (R)	3 (R); 10 (T)	NA	NA
Crystalline Silica (as Quartz)	0-15	14808-60-7	[(10) / (%SiO_2+2)] (R); [(30) / (%SiO_2+2)] (T)	0.025 (R)	NA	NA
Particulate Not Otherwise Regulated	-	NA	5 (R) 15 (T)	3 (R); 10 (T)	NA	NA

Note: Exposure limits for components noted with an * contain no asbestos and <1% crystalline silica

The following table describes the mineral composition of Limestone and Dolomite.

Rock Type	Rock	Mineral	Mineral Formula	Mineral Composition
Sedimentary Rocks	Limestone	Calcite and Aragonite	$CaCO_3$	Calcium Carbonate
		Clay Minerals	(Mg, Al) Si_3O_{12}	Magnesium Aluminum Silicate
		Chert or Diatomite	SiO_2	Silicon Dioxide
	Dolomite (Dolostone)	Dolomite	$CaMg(CO_3)_2$	Calcium Magnesium Carbonate
		Clay Minerals	(Mg, Al) Si_3O_{12}	Magnesium Aluminum Silicate
		Chert or Diatomite	SiO_2	Silicon Dioxide
Crystalline silica content: Sedimentary types 1-20%; Quartz 100%.				

Source: *LaFarge Material Safety Data Sheet Limestone & Dolomite, Revised 03/01/2014*

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Section 3
Real Time Detection (RTD) Monitoring Instrumentation

Area and personal real-time detection (RTD) monitoring instrumentation will be used during remediation activities for at-risk populations, including ground personnel and equipment operators, to assess whether working in the excavation areas are potentially being overexposed to dust generated from contaminated soil. Perimeter air monitoring will be conducted to determine if dust control measures are performing as desired, or if dust concentrations greater than acceptable limits are putting others at risk. Perimeter monitoring will use RTD monitoring instrumentation at multiple locations (one location upwind, and two to three downwind) at identified cardinal points. Area monitors will be placed at or near the fence lines and/or associated tax block demarcations. Final placement will be determined in the field based on existing (real time) environmental conditions.

3.1 SELECTED INSTRUMENTATION

The Dust Trak II, Aerosol Monitor PM 2.5 8530 Desk Top Model will be used to monitor airborne dusts/particulates. This instrument comes with an environmental enclosure and tripod unit that permits the air intake to be set at varying vertical elevations. The environmental enclosure is equipped with a wireless modem to permit real time notification and alerts.

The SidePak AM510 Personal Aerosol Monitor is a personal monitor that can be worn on a belt with the air intake positioned within the breathing zone of high risk personnel. High-risk personnel are those based on their assigned tasks would place them in areas where dust exposure would have the potential to be the greatest. These persons would include ground support personnel employed to direct and oversee truck loading, survey personnel and equipment operators. Specification sheets for RTD air monitoring instrumentation are in Appendix B.

3.2 RTD POSITIONING

Monitoring instrumentation for RTD will be spatially positioned to detect, measure, and display dust concentrations from the one upwind and 2-3 selected downwind positions on the perimeter of each tax block, based on wind direction and variability in wind direction. Variations in placement are possible based on actual field conditions.

Each tax block will be marked for 15 cardinal positions (north, north-northeast, east-northeast, east, east-southeast, etc.). The final distance or placement of the instrument from the source will be determined in the field, based on wind direction (along with site orientation), wind speed, and visual observations. If visible dust appears to be carrying over established stations, monitors may be moved.

3.3 FREQUENCY OF MONITORING

Air monitoring will be performed within each tax block to measure airborne dust concentrations at the perimeter of the work area, and for personnel occupying potential high exposure risk locations (selected ground personnel and equipment operators) in addition to assessing the efficacy of the dust control measures.

- **Base Monitoring Frequency** - Air monitoring using RTDs will be conducted daily to monitor generation of dust and potential off site migration. RTDs will be positioned and monitored continuously during activities that could potentially generate airborne dusts.

- If predetermined action levels as specified in section 2.4 are approached, the frequency of dust-control measures will be increased, as will monitoring intensity, to reduce airborne dust levels and to quantify success.

- The highest concentrations of polycyclic aromatic hydrocarbons (PAHs/BaPEq) in soil were in Block F. Therefore, additional air sampling will be conducted in this tax block during remediation activities.

- The frequency of the dust monitoring may be reduced if sufficient data establish contaminant concentrations below action levels.

- Monitoring for airborne dusts/particulates will not be conducted during rain events, because rain washes dust and particulates from the air. Monitoring during heavy rains may also damage instrumentation.

3.4 METEOROLOGICAL DATA

Meteorological data will be gathered from a portable meteorological station positioned at each tax block during remediation activity. Additional meteorological data will also be obtained from a station at the Martin State Airport. Wind socks will be placed at two locations at each tax block during remediation activities as these provide visual indication of wind direction and speed. Meteorological data for each work day will be downloaded and maintained as part of the project record.

3.5 RECORDKEEPING

All particulate monitors will be set to record data (data logging) as it is collected during potential dust generating activities as defined in Section 1. Data will be downloaded periodically to avoid overwriting any data collected during instrument operation. The placement of the instruments (based on meteorological data), distances from potential dust and particulate sources, and any information that may affect the outcome of the data or derived results will also be recorded either electronically or written within a logbook.

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Section 4
Air Sampling

Air sampling (the collection of analytical air samples for PAHs and crystalline silica) will be conducted to:

- Assess personal exposure of those persons working within high exposure risk job classifications including ground support personnel and equipment operators.
- Gather information to support the validity of air monitoring results obtained through the use of RTDs.
- Obtain data to support the efficacy of dust control measures employed.

Air sampling will not be conducted at each tax block. It will however be conducted at:

- The start of the project in an effort to correlate real-time detection (RTD) instrumentation data with collected sample data.
- Air samples will also be collected at Tax Block F, as it has the highest reported polycyclic aromatic hydrocarbon (PAH) concentrations in soil.
- Air samples shall be collected to quantify dust generation during those activities as defined in Section 1.

The SSHO will determine when and where additional air samples shall be collected based on derived field data and field observations.

4.1 POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

PAHs, including BaPEq, represent the most abundant contaminant within the soils for all of the tax blocks. Air sampling for PAHs (including BaPEq) will be conducted using:

- **NIOSH Manual of Analytical Methods (NMAM) Number 5506** – uses a 37 millimeter (mm), 2-micron (µm) polytetrafluoroethylene (PTFE, i.e., Teflon®) filter + washed XAD sorbent tube (100 milligram [mg] front section; 50 mg back section); during collection, the XAD tube is placed in a tube holder to protect against ultraviolet (UV) light and temperature degradation.

- **Sample flow rate:** two liters per minute for a preferred eight-hour time frame. Shorter sample runs may be collected provided minimum volume is obtained.
- **Pump calibration** - with a representative media in line.
    - volume (minimum): 200 liters
    - volume (maximum): 1000 liters
- **Shipment:** transfer filters to culture tubes; wrap sorbent and culture tubes in aluminum foil; ship at 0 degrees Centigrade (C).
- **Sample stability**: protect from heat and UV light.

The NIOSH methodology used for PAH sampling is in Appendix C.

4.2 CRYSTALLINE SILICA

We have determined that silica is contaminant that best represents the potential exposure scenario for total dust or respirable dust particulates, not otherwise classified. The NIOSH methodology used for silica sampling is in Appendix C. Air sampling for crystalline silica will be conducted using:

- **NIOSH Method 7500:** silica is present in excavated or backfilled soil band can be liberated from degrading dolomitic limestone placed on haul roads.
- **Sampler:** cyclone + filter (10-mm nylon cyclone, Higgins-Dewell cyclone, or aluminum cyclone + 5-µm polyvinyl chloride membrane)
- **Flow rate:** nylon cyclone: 1.7 L/min; HD cyclone: 2.2 L/min; aluminum cyclone: 2.5 L/min
    - Volume (minimum): 400 liters
    - Volume (maximum): 1000 liters
- **Shipment:** routine
- **Sample stability:** stable

4.3 QUALITY ASSURANCE/QUALITY CONTROL

The site safety and health officer (SSHO) or the industrial hygiene (IH) technician will conduct quality assurance/quality control (QA/QC) by ensuring that proper sampling, collection, and chemical analysis procedures were followed. QA/QC procedures assess the precision, accuracy, representativeness, and comparability of monitoring results.

4.4 SAMPLE NUMBERING AND MANAGEMENT

The SSHO or the IH technician will record all air samples on chain-of-custody (COC) forms. Each COC form will include:

- the identification numbers of the samples collected on a given day
- time(s) (on- and off-duration) of collection
- estimated flow rate
- total volume of air collected
- names of the samplers
- any pertinent information regarding the sampling event that may affect sampling results

The COC form will identify the requested chemical analyses, and the record of the release and custody to document sample possession. The SSHO, IH technician, or appropriate designee is responsible for the care and custody of the samples collected until they are delivered to the analytical laboratory or entrusted to a carrier. Transfer of custody to another party is formally documented on the COC form. Sample logs or other records will be signed and dated according to protocol. Containers used to ship samples will be sealed according to United States Environmental Protection Agency (USEPA) requirements to maintain sample integrity, and the shipments will be accompanied by the COC record identifying the contents. The COC may be carbon copy or electronic, providing the necessary information is provided. One copy of the COC record will accompany the shipment, and the SSHO or the IH Technician will retain another copy of each COC. A sample of the COC custody form is in Appendix D.

4.4.1 Nomenclature for Ambient Air Samples

Perimeter air samples will be collected at up to four of 15 cardinal positions (north, north-northeast, northeast, east-northeast, east, east-southeast, etc.). Sample nomenclature used to identify air samples will be identified by the facility (Middle River Complex [MRC]), followed by the tax block, followed by the media type (AS for air sample) and its sequential number, followed by the sample category (perimeter, operator, or ground support), the analytical code (PAH-low volume [PAHL] or crystalline silica [CSLO]), followed by the sampling date. For

example, sample MRC-BLDA-S01-PER-PAHL-022615 represents the first air sample collected at Block D along the perimeter, for PAHs-low volume on February 26, 2015.

4.4.2 Quality Control (QC) Sample Numbering

The QC code will consist of a three- to four-segment alpha-numeric code that identifies the sample QC type, the date the sample was collected, and the number of this type of QC sample collected on that date. QC types are identified as field duplicate (FD) or method blanks (MB), and the valid matrix code is air sample (AS). The sampling time recorded for duplicate samples on the COC form and labels will be "0000" so that the samples are "blind" to the laboratory. Notes detailing the duplicate sample number, time, date, and type will be recorded on the sample log sheet and in the field log book to document its location. The time on blind samples will always be recorded as "0000" on the COC. Sample log sheets are not provided to the laboratory.

4.4.2.1 Field Duplicates

Field duplicates are collected to check the laboratory accuracy under identical conditions. Duplicate samples will be collected side by side with the original. Duplicate nomenclature will consist of QC type (FB or MB), followed by sample type (AS), followed by analytical code (PAH-L or CSLO), followed by the date, followed by a sequential number. For example, sample FD-AS-PAHL-021615-001 indicates a field duplicate for an air sample analyzed for PAHs and collected on February 16, 2015, with a sequential number (001) assigned by the SSHO and/or the IH technician. Field duplicates will be collected for each analysis at Blocks D, D-Panhandle, F, G, and H at a frequency of one QC sample per ten analytical air samples.

4.5 RECORDKEEPING

4.5.1 Air Sample Log Sheets

Each sample will be recorded on a sample log sheet or multi-sample log sheet. These forms are used to document daily air sampling activities and other pertinent on-site information that may impact the collection of samples. Examples of log sheets are in Appendix D.

4.5.2 Calibration Record

Calibration of the air sampling pumps will be recorded on the "Air Sample/Multi-Air Sample Log Sheet" provided in Appendix D.

4.6 DATA MANAGEMENT

Data management procedures used in this dust control and air monitoring/sampling plan are designed to ensure that all sampling and analytical data are collected, stored, and maintained in an efficient and secure environment, so the data quality meets the plan objectives. The efficiency of the data management process will be maximized by using standardized data collection and review procedures.

4.7 DATA QUALITY REVIEW

Data quality review will be conducted on all ambient samples to determine whether analytical laboratory data collected are of acceptable quality for use in decision-making. This review begins with data validation, which is a comparison of data quality indicators (DQIs) to prescribed acceptance criteria. The DQIs are measures used to assess the completeness, sensitivity, accuracy, precision, comparability, and representativeness of the sample collection and sample analysis process. The output of this review is a set of alphabetic flags such as "U" – not detected, "J" - estimated, "R" - rejected, or combinations thereof that may apply to individual results based on its validation. These flags infer the general quality of the data.

4.7.1 Certified Industrial Hygienist (CIH) Review

All data collected during air sampling efforts will be submitted to a CIH, who will approve or identify discrepancies within sample collection, analytical screening, and/or laboratory reporting. Data analyzed will include air sample log sheets, COC forms, calibration records, calculations of air volumes, and laboratory-provided information.

Table 4-1

Sample Summary Table
Lockheed Martin Middle River Complex
Page 1 of 3

Sample Number	Media	Comments
Geotechnical Particulate Sieve Analysis		
MRC-SS-BL___MMDDYR-0001	Soils	Geotechnical Soil Particulate analysis
MRC-SG-BL___MMDDYR-0001	Dolomitic limestone	Geotechnical Dolomitic limestone Particulate analysis
Air Sampling Block ___ – Perimeter (Area) Samples		
MRC-BL_-AS_ _PER-PAHL-mmddyr	PAH analysis	Perimeter air sample collected during potential dust generating activities – up wind
MRC-BL_-AS_ _PER-PAHL-mmddyr	PAH analysis	Perimeter air sample collected during potential dust generating activities – down wind
MRC-BL_-AS_ _-PER-PAHL-mmddyr	PAH analysis	Perimeter air sample collected during potential dust generating activities – down wind
MRC-BL_-AS_ _-PER-CSLO-mmddyr	Crystalline silica – respirable dust	Perimeter air sample collected during potential dust generating activities – down wind
MRC-BL_-AS_ _-PER-CSLO-mmddyr	Crystalline silica – respirable dust	Perimeter air sample collected during potential dust generating activities – down wind
MRC-BL_-AS_ _-PER-CSLO-mmddyr	Crystalline silica – respirable dust	Perimeter air sample collected during potential dust generating activities – down wind

Table 4-1

Sample Summary Table
Lockheed Martin Middle River Complex
Page 2 of 3

Sample Number	Media	Comments
Air Sampling Block ___ – High Risk Personnel - Personal Air Samples		
MRC-BL_-AS_ _-PER-CSLO-mmddyr	Crystalline silica – respirable dust	Perimeter air sample collected during potential dust generating activities – down wind
MRC-BL_-AS_ _-OPR-PAHL-mmddyr	PAH analysis	High Risk Personnel – Personal Air Samples to quantitate exposure potential within these job classifications considered high risk (for exposure)
MRC-BL_-AS_ _-OPR-PAHL-mmddyr	Crystalline silica – respirable dust	High Risk Personnel – Personal Air Samples to quantitate exposure potential within these job classifications considered high risk (for exposure)
MRC-BL_-AS_ _-GRD-PAHL-mmddyr	PAH analysis	High Risk Personnel – Personal Air Samples to quantitate exposure potential within these job classifications considered high risk (for exposure)
MRC-BL_-AS_ _-GRD-PAHL-mmddyr	Crystalline silica – respirable dust	High Risk Personnel – Personal Air Samples to quantitate exposure potential within these job classifications considered high risk (for exposure)

Table 4-1

Sample Summary Table
Lockheed Martin Middle River Complex
Page 3 of 3

Quality Control Samples			
Sample Number	**Analysis**	**Frequency**	**Comments**
FD-ASPAHL-mmddyr__ __	PAH analysis	Duplicate – 1 for every 10 air samples collected	Duplicate air sample collected within the immediate proximity and flow rate to establish duplicate conditions
FD-ASCSLO-mmddyr__ __	Crystalline silica – respirable dust analysis	Duplicate – 1 for every 10 air samples collected	Duplicate air sample collected within the immediate proximity and flow rate to establish duplicate conditions
MB-ASPAHL-mmddyr__ __	Method blank for PAH analysis	Method blank	The media employed in these samples will travel and be exposed to all of the same conditions that the samples are exposed with the exception, there will be no active air drawn across or through this media. The sample media will be opened then sealed up, then subjected to the same shipping constraints as the sample media.
MB-ASCSLO-mmddyr__ __	Method blank for crystalline silica, respirable dust analysis	Method blank	The media employed in these samples will travel and be exposed to all of the same conditions that the air samples are exposed to with the exception, there will be no active air drawn across or through this media. The sample media will be opened then sealed up, then subjected to the same shipping constraints as the sample media.

Section 5
References

1. Grading and Erosion and Sediment Control Plan for Soil Remedial Action, Lockheed Martin Middle River Complex, Middle River, Maryland, Tetra Tech, March, 2015.

2. LaFarge Material Safety Data Sheet Limestone & Dolomite, Revised 03/01/2014.

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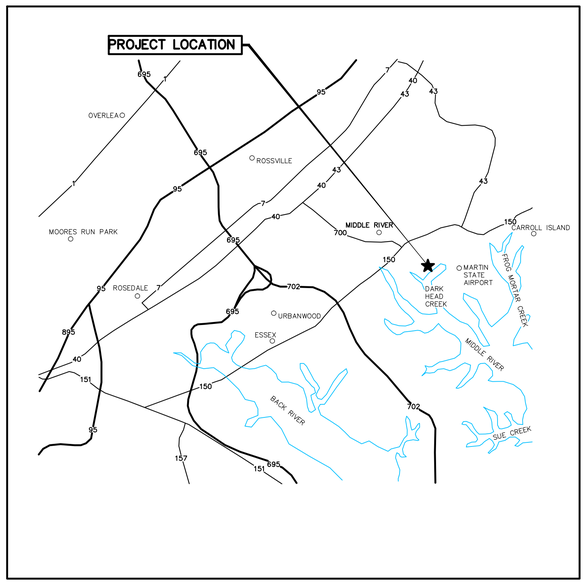
APPENDIX A—EXCAVATION AREAS IN TAX BLOCKS D; D-PANHANDLE; F; G; AND H

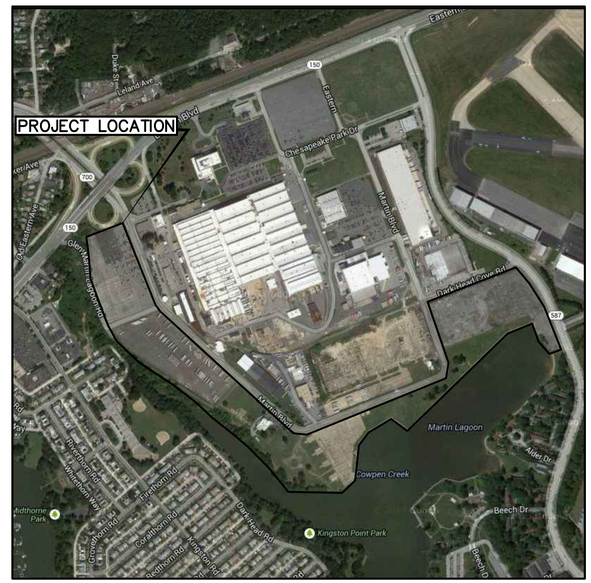
GRADING AND
EROSION AND SEDIMENT CONTROL PLAN FOR
SOIL REMEDIAL ACTION
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND



PROJECT VICINITY MAP
NOT TO SCALE

DRAWING INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES, GRADING NOTES, AND LEGEND
C-1	FACILITY WIDE EXISTING CONDITIONS
C-2	BLOCK D – EXISTING CONDITIONS
C-3	BLOCK D PANHANDLE – EXISTING CONDITIONS
C-4	BLOCK F – EXISTING CONDITIONS
C-5	BLOCK G – EXISTING CONDITIONS (SHEET 1 OF 2)
C-6	BLOCK G – EXISTING CONDITIONS (SHEET 2 OF 2)
C-7	BLOCK H – EXISTING CONDITIONS
C-8	EROSION AND SEDIMENT CONTROL NOTES
C-9	BLOCK D – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-10	BLOCK D PANHANDLE – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-11	BLOCK F – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-12	BLOCK G – GRADING AND EROSION & SEDIMENT CONTROL PLAN (SHEET 1 OF 2)
C-13	BLOCK G – GRADING AND EROSION & SEDIMENT CONTROL PLAN (SHEET 2 OF 2)
C-14	BLOCK H – GRADING AND EROSION & SEDIMENT CONTROL PLAN
C-15	EROSION AND SEDIMENT CONTROL DETAILS (SHEET 1 OF 3)
C-16	EROSION AND SEDIMENT CONTROL DETAILS (SHEET 2 OF 3)
C-17	EROSION AND SEDIMENT CONTROL DETAILS (SHEET 3 OF 3)
C-18	SEEDING SPECIFICATIONS



MIDDLE RIVER, MARYLAND, GOOGLE EARTH 2013

PROJECT LOCATION MAP
SCALE: 1"=1000'

DATUM:
HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL= NAVD 88

0 1000 2000
SCALE IN FEET

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT

APPROVED FOR SEDIMENT CONTROL _____ DATE

_____ DISTRICT OFFICIAL _____ PLAN NO.

TECHNICAL REVIEW FOR THE DISTRICT BY:

_____

IF A GRADING PERMIT HAS NOT BEEN OBTAINED WITHIN TWO YEARS OF THIS APPROVAL, THIS PLAN SHALL BE RE-SUBMITTED TO THE DISTRICT.

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

STATE OF MARYLAND
SCOTT I. SABIN
No. 29015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
TITLE SHEET

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 20

COPYRIGHT TETRA TECH INC.

T-1

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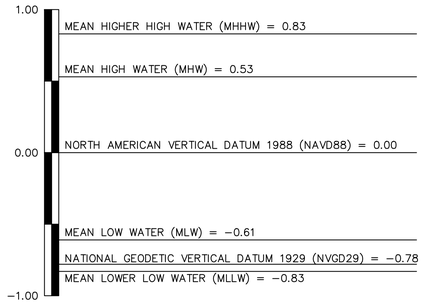
GENERAL NOTES:

1. GRID COORDINATES REFERENCE MARYLAND STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (MDSPCS NAD83). ELEVATIONS REFERENCE NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88).
2. UNLESS OTHERWISE NOTED, GROUND SURFACE TOPOGRAPHY OBTAINED FROM DRAWING NO. 22042C01 TITLED "SITE PLAN, CHESAPEAKE PARK, LMC PROPERTIES, INC." (REV C DATED 10/02/02) PREPARED BY TAI CONSULTING ENGINEERS, OWINGS MILLS, MARYLAND AND NOTED THEREON AS BEING OBTAINED FROM FIELD RUN SURVEY CONDUCTED BY DMW, INC. DURING JUNE 1999 FLOATED TO STATE GRID. GROUND SURFACE TOPOGRAPHY BETWEEN COW PEN CREEK AND CHESAPEAKE PARK PLAZA AND DELINEATED WETLAND LIMITS SURVEYED BY TETRA TECH, NEWARK, DELAWARE DURING NOVEMBER AND DECEMBER 2009.
3. ADDITIONAL HORIZONTAL INFORMATION OBTAINED FROM TAI DRAWING NOTED ABOVE AND NOTED THEREON AS BEING OBTAINED FROM BALTIMORE COUNTY OFFICE OF INFORMATION TECHNOLOGY GIS SERVICES UNIT WITH MARCH 1995 DATE OF CAPTURE.
4. EXISTING UTILITIES OBTAINED FROM TAI DRAWING NOTED ABOVE AND NOTED THEREON AS BEING OBTAINED FROM DMW FIELD RUN SURVEY AND LOCKHEED MARTIN PROPERTIES, INC. DRAWING TITLED "EXHIBIT #6 EXISTING UTILITIES PLAN."
5. BOUNDARY LINES OBTAINED FROM TAI DRAWING NOTED ABOVE AND NOTED THEREON AS BEING OBTAINED FROM RECORDED PLAT E.H.K., JR. 51 FOLIO 43 "1ST AMENDED CHESAPEAKE PARK RE-SUBDIVISION" PREPARED BY MARYLAND SURVEYING AND ENGINEERING CO., INC. 4/24/84 WITH BOUNDARY ORIENTED TO BALTIMORE COUNTY METROPOLITAN DISTRICT GRID, BUT SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.
6. 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD) ELEVATION IS 8.5-FT NAVD88 BASED ON "FLOOD INSURANCE STUDY, BALTIMORE COUNTY, MARYLAND (UNINCORPORATED AREAS)" FLOOD INSURANCE STUDY NUMBER 240010V000C [FEMA, SEPTEMBER 2009 (PRELIMINARY)].
7. CHESAPEAKE BAY CRITICAL AREA BOUNDARY OBTAINED FROM MARYLAND DEPARTMENT OF NATURAL RESOURCES WEBSITE. AREAS WITHIN THE CHESAPEAKE BAY CRITICAL AREA ARE INTENSELY DEVELOPED AREA (IDA) CATEGORY.
8. TWO FOOT CONTOUR INTERVAL FOR GROUND SURFACE TOPOGRAPHY UNLESS OTHERWISE NOTED.
9. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. CHECK GRAPHIC SCALE BEFORE SCALING DRAWING.
10. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. VERIFICATION OF UTILITY LOCATIONS MUST BE MADE PRIOR TO WORK ON-SITE. NOTIFY MISS UTILITY OF MARYLAND (1-800-257-7777; www.missutility.net) AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS, PRIOR TO THE DAY EXCAVATION WILL COMMENCE. MISS UTILITY OF MARYLAND IS NOT EXPECTED TO HAVE COMPLETE RECORD OF UTILITIES FOR THE MIDDLE RIVER COMPLEX. IN ADDITION TO NOTIFYING MISS UTILITY OF MARYLAND, VERIFY UTILITY LOCATIONS PRIOR TO BEGINNING ANY WORK USING A MINIMUM OF TWO PASSIVE METHODS (E.G., ELECTROMAGNETIC INDUCTION, GROUND PENETRATING RADAR, MAGNETIC LOCATORS, ACOUSTIC SURVEY, ETC.).
11. INSPECT INDIVIDUAL AREAS PRIOR TO CONSTRUCTION TO VERIFY EXISTING SITE CONDITIONS.
12. PROVIDE HORIZONTAL AND VERTICAL CONTROL FOR CONSTRUCTION.
13. STAKE THE LOCATION OF REMOVAL AND DISTURBED AREAS PRIOR TO ACTUAL WORK.
14. THE SOLE LOCATION FOR INGRESS AND EGRESS TO INDIVIDUAL AREAS SHALL BE VIA CONSTRUCTION ENTRANCE(S) WHICH SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. PROVIDE INGRESS/EGRESS CONTROL INTO INDIVIDUAL AREAS AS PART OF AREA-SPECIFIC MOBILIZATION ACTIVITIES.
15. PROVIDE PROTECTION FOR EXISTING UTILITIES TO REMAIN IN SERVICE.
16. LIMIT WORK TO INDIVIDUAL AREAS WITHIN THE APPROVED LIMITS OF DISTURBANCE.
17. MAINTAIN WORK AREAS FREE FROM DUST AND ODORS.
18. PROPERTY LINE INFORMATION TAKEN FROM RECORDED PLAT E.H.K., JR 51 FOLIO 43 "1ST AMENDED CHESAPEAKE PARK RE-SUBDIVISION" PREPARED BY MARYLAND SURVEYING AND ENGINEERING CO. INC. 4/24/84. PROPERTY LINES HAVE BEEN ORIENTED TO THE BALTIMORE COUNTY METROPOLITAN DISTRICT GRID. SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.
19. IN ACCORDANCE WITH THE CODE OF MARYLAND REGULATIONS 26.17.04.11 (5) ALL IN-STREAM CONSTRUCTION IN DARK HEAD COVE WHICH MAY ADVERSELY AFFECT ANADROMOUS FISH SPAWNING AREAS, SHALL BE PROHIBITED FROM MARCH 15 THROUGH JUNE 15.

TIDAL DATUMS AT BALTIMORE, FORT McHENRY, PATAPSCO RIVER, MARYLAND

TIDAL EPOCH: 1983-2001



ELEVATIONS OF TIDAL DATUMS REFERRED TO IN FEET.
ELEVATIONS OF TIDAL DATUMS COMPUTED USING BENCHMARK 857 4680 TIDAL 32.

TRAFFIC AND STOCKPILE NOTES:

ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT VIA A STABILIZED CONSTRUCTION ENTRANCE. CONTRACTOR SHALL REMOVE OR IMPORT DIRT AS REQUIRED. ANY STOCKPILE AREA CREATED FOR THIS MATERIAL SHALL BE MANAGED BY A SEDIMENT CONTROL DEVICE AT ALL TIMES.
TEMPORARY STOCKPILES SHALL BE:

1. LOCATED WITHIN THE LIMIT OF DISTURBANCE (LOD).
2. DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.
3. POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.
4. POSITIONED TO NOT ALTER DRAINAGE DIVIDES.

GENERAL GRADING NOTES AND CERTIFICATIONS:

1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
2. ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
3. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
4. STORMWATER MANAGEMENT HAS BEEN ADDRESSED BY A STORMWATER MANAGEMENT VARIANCE.

SITE DATA:

1. DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
   VERTICAL=NAVD 88
2. BENCHMARK: NORTHING: 604746.50 EASTING: 1473183.47 ELEVATION: 15.73 CONCRETE MONUMENT

OWNER'S / DEVELOPER'S CERTIFICATION - GRADING:

I/WE HEREBY CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT AND WITH THE REQUIREMENTS SPECIFIED IN ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE.

OWNER / DEVELOPER SIGNATURE TITLE DATE

PRINTED NAME

OWNER'S / DEVELOPER'S CERTIFICATION - AIR QUALITY:

I ACKNOWLEDGE THAT I AM RESPONSIBLE UNDER THE CODE OF MARYLAND REGULATION (26.11.06.03) TO PREVENT PARTICULATE MATTER FROM BECOMING AIRBORNE DUE TO GRADING, LAND CLEARING, EXCAVATION, CONSTRUCTION OR OTHER RELATED ACTIVITIES. I HAVE RECEIVED A COPY OF "GUIDELINES TO THE AIR POLLUTION REGULATIONS FOR CONTROLLING EXCESS ABP (DUST) ON ACTIVITY SITES" WHICH INCLUDES A COPY OF COMAR 26.11.06.03. I WILL CONTACT THE ENVIRONMENTAL HEALTH SECTION AT 887-4065 AT LEAST THREE DAYS PRIOR TO BEGINNING WORK.

OWNER / DEVELOPER SIGNATURE TITLE DATE

PRINTED NAME

GENERAL LEGEND:

- PROPOSED EXCAVATION TO 2-FOOT DEPTH
- PROPOSED EXCAVATION TO 3-FOOT DEPTH
- PROPOSED EXCAVATION TO 4-FOOT DEPTH
- PROPOSED EXCAVATION TO 6-FOOT DEPTH
- PROPOSED EXCAVATION TO 7-FOOT DEPTH
- UNDERGROUND STORAGE TANK REMOVAL AREA
- DELINEATED WETLAND AREA
- EXISTING BUILDINGS
- PROPOSED BLOCK D PANHANDLE STORM DRAIN REPAIR EXCAVATION TO 5-FOOT DEPTH

GENERAL LEGEND:

- EXISTING PROPERTY LINE/BLOCK BOUNDARY
- EXISTING EDGE OF PAVEMENT
- 10 — EXISTING ELEVATION CONTOUR (10 FT. INTERVAL)
- 8 — EXISTING ELEVATION CONTOUR (2 FT. INTERVAL)
- EXISTING EDGE OF WATER
- X X X — EXISTING FENCELINE
- MH — EXISTING MANHOLE
- E E E — EXISTING ELECTRIC LINE
- SAN SAN — EXISTING SANITARY SEWER LINE
- GAS GAS — EXISTING GAS LINE
- W W W — EXISTING WATER LINE
- FW — EXISTING FIRE PROTECTION WATER LINE
- OIL — EXISTING OIL LINE
- EXISTING STORM SEWER LINE
- LIMITS OF EXCAVATION LINE
- RAILROAD
- TREE LINE
- 100 YEAR FLOODPLAIN (SEE GENERAL NOTE 6)
- CHESAPEAKE BAY CRITICAL AREA BUFFER
- LIMITS OF DISTURBANCE
- GROUNDWATER INJECTION SYSTEM
- MW — MONITORING WELL
- INLET PROTECTION
- CONCRETE CURBS
- TAB TAB — TEMPORARY ASPHALT BERM
- SFPA SFPA — SILT FENCE ON PAVED SURFACE
- SF SF SF SF — SILT FENCE
- SSF SSF — SUPER SILT FENCE
- TC TC — TURBIDITY CURTAIN
- PST — PORTABLE SEDIMENT TANK
- PERIMETER DIKE/SWALE
- STABILIZED CONSTRUCTION ENTRANCE (WITH MOUNTABLE BERM)
- IMPERVIOUS AREAS
- MODIFIED ROCK OUTLET PROTECTION III
- SOIL STOCKPILE/MATERIAL STAGING AREA

DETAIL NUMBER
FIRST SHEET CALLED OUT ON — FIRST SHEET SHOWN ON

DETAIL INDICATOR

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT
APPROVED FOR SEDIMENT CONTROL

DATE

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

STATE OF MARYLAND — SCOTT I. SAMUEL — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
GENERAL NOTES, GRADING NOTES, AND LEGEND

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	2 OF 20

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T-2

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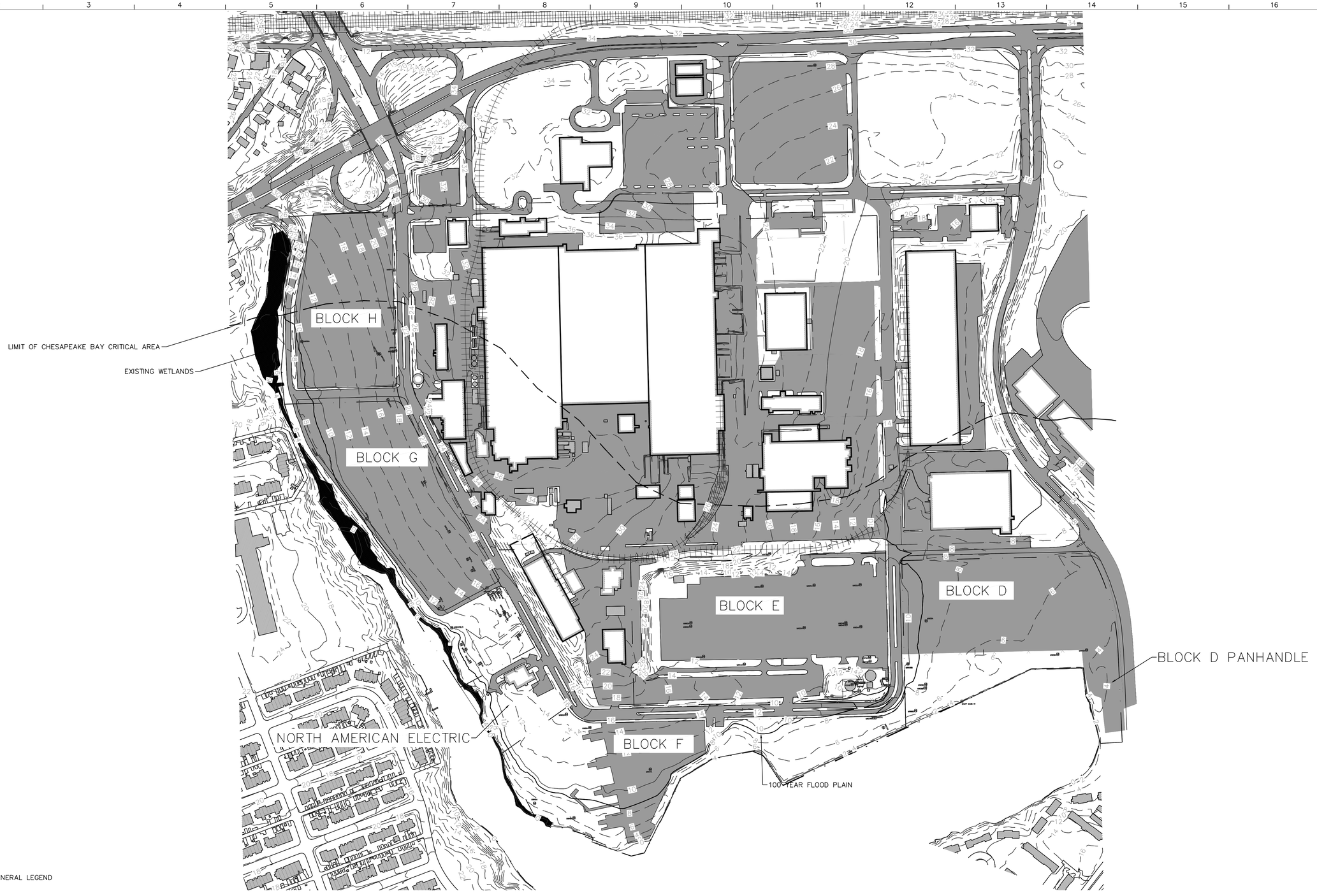

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. THIS DRAWING PRESENTS FACILITY WIDE EXISTING CONDITIONS. REFER TO DRAWINGS C-2 THROUGH C-7 FOR EXISTING CONDITIONS (INCLUDING UTILITIES AND CONTOUR LABELS) FOR INDIVIDUAL REMEDIAL ACTION AREAS. REFER TO DRAWINGS C-9 THROUGH C-14 FOR GRADING AND EROSION AND SEDIMENT CONTROL PLANS FOR INDIVIDUAL REMEDIAL ACTION AREAS.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 200 400
SCALE IN FEET

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STATE OF MARYLAND
SCOTT L. NELSON
No. 20015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
FACILITY WIDE EXISITING CONDITIONS

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	3 OF 20

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C-1

K:\CADD\MRC\CIVIL\X-C-ES.DWG IVANNA.GOLDSBERRY 3/24/2015 12:46:19 PM

DARK HEAD COVE ROAD

BLOCK BOUNDARY

N

24" Ø RCP STORM SEWER

24" Ø RCP STORM SEWER

24" Ø RCP STORM SEWER

30" Ø RCP STORM SEWER

5' X 5', CONC. BOX CULVERT STORM SEWER

PARKING LOT NO. 6

MATCHLINE (SEE SHEET C-3)

24" CMP

32" CMP

MH

MH

MW35A

MW105B

MW73A

MW73B

MW38A

MW38B

'96D

STAFF GAGE 01

OUTFALL 9

MW39A

MW40A

OUTFALL 7

8OF001 (MSA)

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND SEED MIXTURES
2. REFER TO DRAWING C-9 FOR THE BLOCK D EROSION AND SEDIMENT CONTROL PLAN
3. THE LIMITS OF THE 100-YEAR FLOOD PLAIN AND CHESAPEAKE BAY CRITICAL AREA ARE INDICTED ON DRAWING C-1. THE BLOCK D REMEDIAL ACTION AREA IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA. THE BLOCK D REMEDIAL ACTION IS MOSTLY LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 40 80
SCALE IN FEET

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STATE OF MARYLAND
SCOTT A. RESSLER
No. 29015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
BLOCK D – EXISTING CONDITION

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	4 OF 20

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C-2

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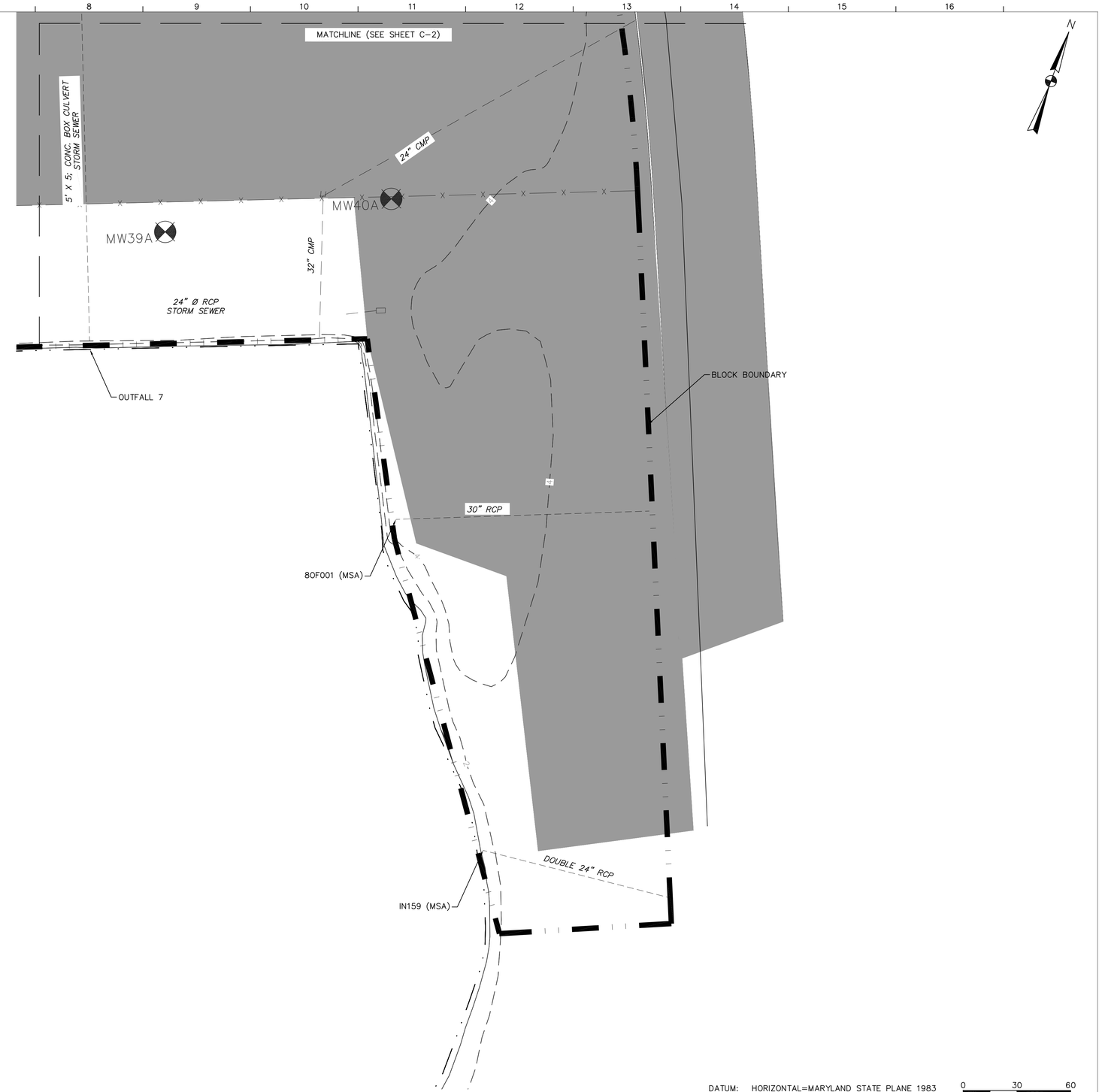

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. REFER TO DRAWING T-2 FOR GENERAL NOTES
2. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES.
3. REFER TO DRAWING C-10 FOR BLOCK D PANHANDLE EROSION AND SEDIMENT CONTROL PLAN.
4. THE LIMITS OF THE 100-YEAR FLOOD PLAIN AND CHESAPEAKE BAY CRITICAL AREA ARE INDICATED ON DRAWING C-1. THE BLOCK D PANHANDLE REMEDIAL ACTION AREA IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA. THE BLOCK D PANHANDLE REMEDIAL ACTION AREA IS LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 30 60
SCALE IN FEET

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STATE OF MARYLAND SCOTT A. NESBITT No. 28015 PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK D PANHANDLE – EXISTING CONDITION

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	5 OF 20

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LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES.
2. REFER TO DRAWING C-11 FOR THE BLOCK F EROSION AND SEDIMENT CONTROL PLAN.
3. THE LIMIT OF THE 100-YEAR FLOOD PLAIN AND CHESAPEAKE BAY CRITICAL AREA ARE INDICATED ON DRAWING C-1. THE BLOCK F REMEDIAL ACTION AREA IS LOCATED ENTIRELY WITHIN THE CHESAPEAKE BAY CRITICAL AREA. THE BLOCK F REMEDIAL ACTION IS PARTIALLY LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

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SCALE IN FEET

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STATE OF MARYLAND
SCOTT A. NESBIT
No. 25015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK F – EXISTING CONDITIONS

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	6 OF 20

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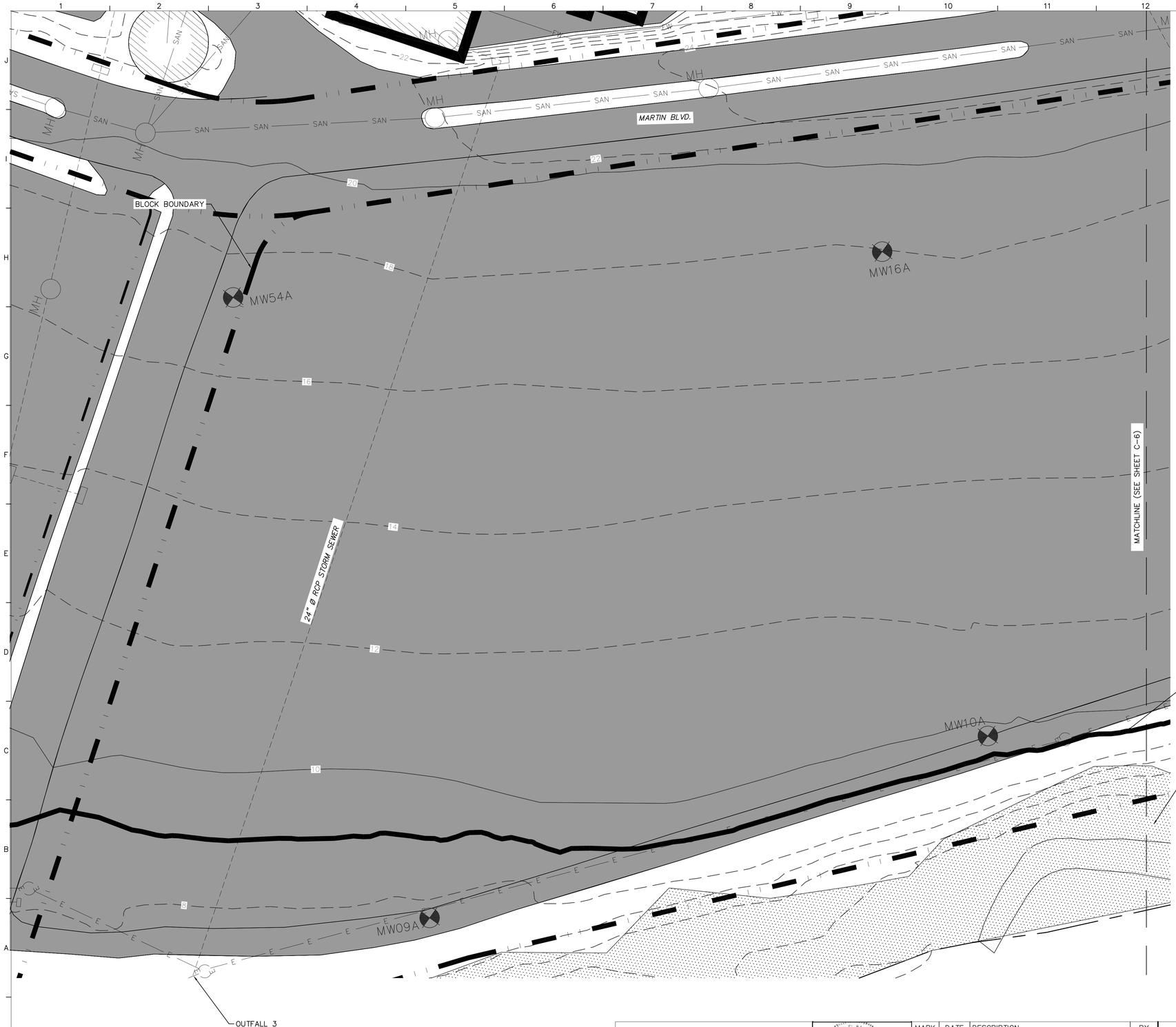

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND SEED MIXTURES
2. REFER TO DRAWING C-12 FOR THE BLOCK G EROSION AND SEDIMENT CONTROL PLAN SHEET 1 OF 2
3. THE LIMITS OF THE 100-YEAR FLOOD PLAIN AND CHESAPEAKE BAY CRITICAL AREA ARE INDICTED ON DRAWING C-1. THE BLOCK G REMEDIAL ACTION AREA IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA. THE BLOCK G REMEDIAL ACTION IS PARTIALLY LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 30 60
SCALE IN FEET

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STATE OF MARYLAND
SCOTT A. KESSLER
No. 26015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
BLOCK G – EXISTING CONDITIONS
(SHEET 1 OF 2)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	7 OF 20

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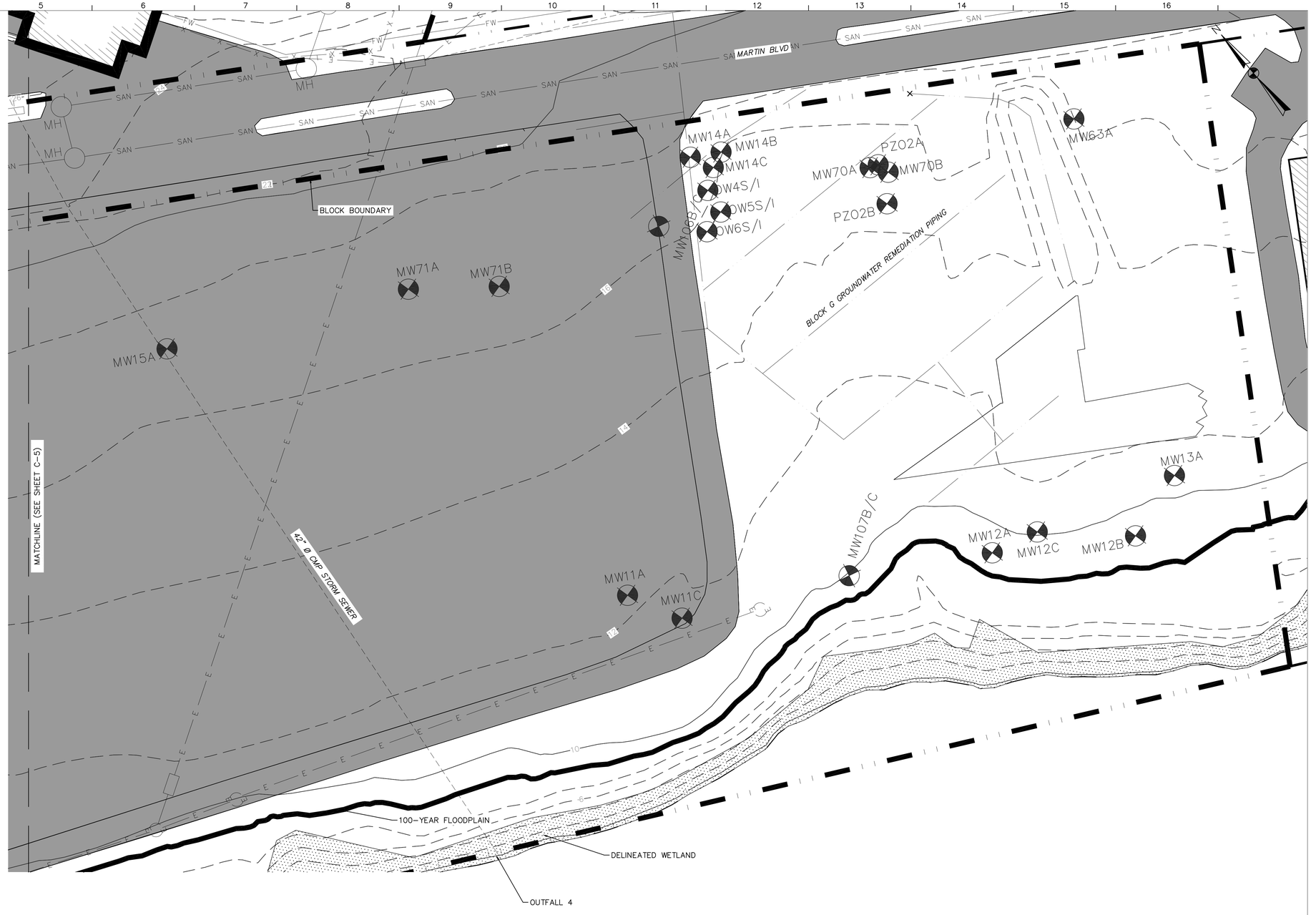

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND SEED MIXTURES
2. REFER TO DRAWING C-13 FOR THE BLOCK G EROSION AND SEDIMENT CONTROL PLAN SHEET 2 OF 2
3. THE LIMITS OF THE 100-YEAR FLOOD PLAIN AND CHESAPEAKE BAY CRITICAL AREA ARE INDICATED ON DRAWING C-1. THE BLOCK G REMEDIAL ACTION AREA IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA. THE BLOCK G REMEDIAL ACTION IS PARTIALLY LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

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SCALE IN FEET

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STATE OF MARYLAND
SCOTT A. RESSLER
No. 29015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
BLOCK G – EXISTING CONDITIONS
(SHEET 2 OF 2)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	8 OF 20

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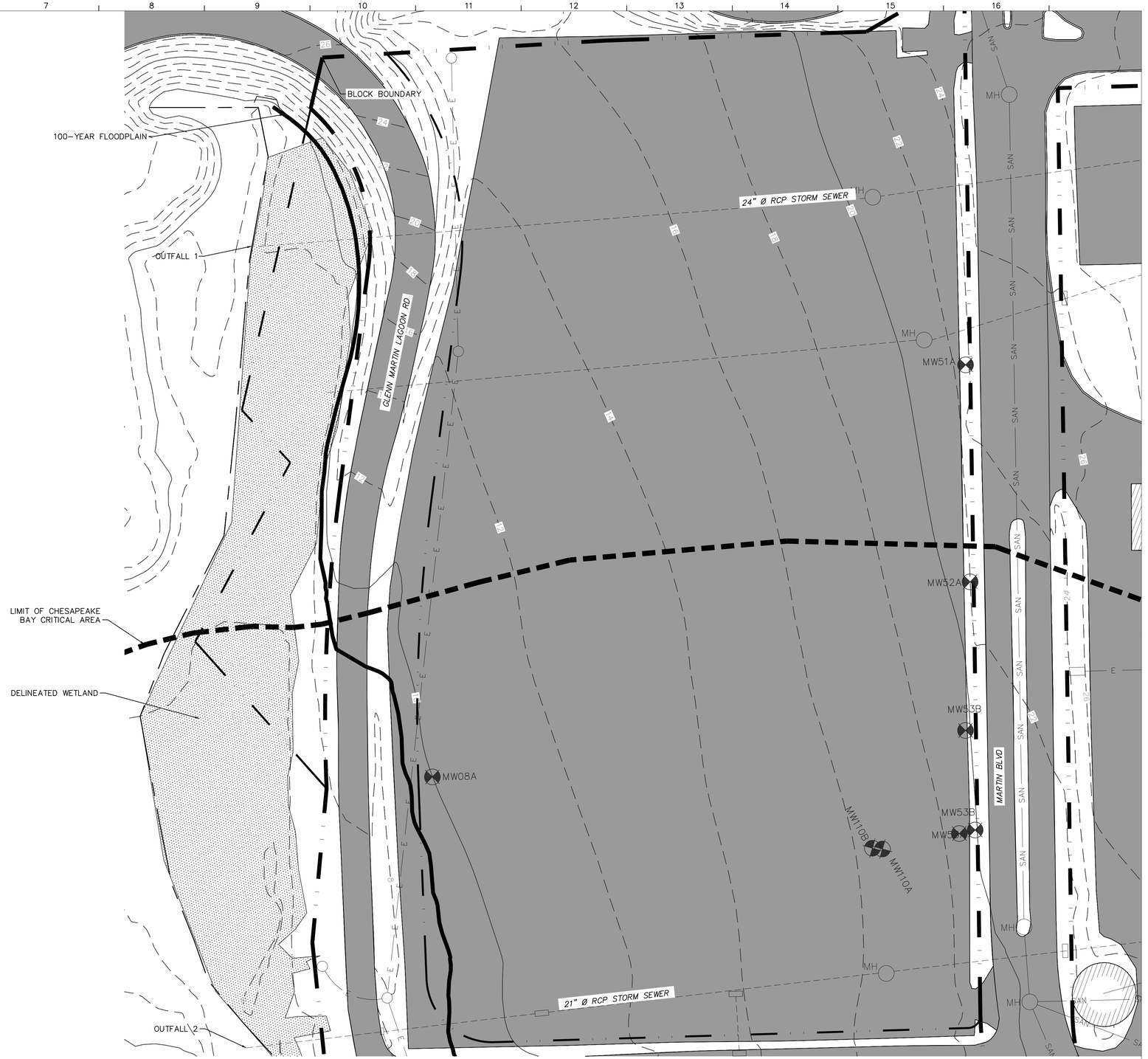

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 40 80
SCALE IN FEET

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES.
2. REFER TO DRAWING C-14 FOR THE BLOCK H EROSION AND SEDIMENT CONTROL PLAN.
3. THE LIMIT OF THE 100-YEAR FLOOD PLAIN AND CHESAPEAKE BAY CRITICAL AREA ARE INDICATED ON DRAWING C-1. THE BLOCK H REMEDIAL ACTION AREA IS LOCATED OUTSIDE OF THE 100-YEAR FLOOD PLAIN AND PARTIALLY INSIDE OF THE CHESAPEAKE BAY CRITICAL AREA.

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STATE OF MARYLAND
SCOTT I. SAMUELSON
No. 29015
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
BLOCK H – EXISTING CONDITIONS

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
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SHEET:	9 OF 20

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BALTIMORE COUNTY SPECIFIC EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES:

1. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
2. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES, REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT.
3. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
4. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1), AND B.) SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
5. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO BALTIMORE COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
6. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H-30-1, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
7. ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION OF THE CHANGE.
8. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT.
9. THE FOLLOWING ITEM MAY BE USED AS APPLICABLE: REFER TO MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION" BY THE WATER MANAGEMENT ADMINISTRATION OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT,REVISED NOVEMBER,2000, FOR THE STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED WEREIN FOR WATERWAY CONSTRUCTION.
10. PUMPING SEDIMENT-LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.

ADDITIONAL STATE OF MARYLAND EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES:

1. THE CONTRACTOR SHALL NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS – SEDIMENT CONTROL (PAI-SC) AT (410) 887-3226 AT LEAST 48 HOURS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES AND THE PAI-SC INSPECTOR.
2. THE CONTRACTOR MUST NOTIFY PAI-SC IN WRITING AND BY TELEPHONE AT THE FOLLOWING POINTS:
   a. THE REQUIRED PRE-CONSTRUCTION MEETING
   b. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES.
   c. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).
   d. PRIOR TO REMOVAL OF ALL SEDIMENT CONTROL DEVICES.
   e. PRIOR TO FINAL ACCEPTANCE.
3. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE PAI-SC INSPECTOR PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES.
4. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC ROADS. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY.
5. THE CONTRACTOR SHALL APPLY SOD OR SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. (REQUIREMENT MAY BE REDUCED TO THREE (3) DAYS FOR SENSITIVE AREAS.)
6. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL CONTRIBUTORY DISTURBED AREAS USING SOD OR AN APPROVED PERMANENT SEED MIXTURE WITH REQUIRED SOIL AMENDMENTS AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHERE THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE, BUT NO LATER THAN SEVEN (7) CALENDAR DAYS AFTER ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, TEMPORARY SEED AND ANCHORED STRAW MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE APPLIED BY MARCH 15 OR EARLIER IF GROUND AND WEATHER CONDITIONS ALLOW.
7. THE SITES APPROVAL LETTER, APPROVED EROSION AND SEDIMENT CONTROL PLANS, DAILY LOG BOOKS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF WMA AND THE AGENCY RESPONSIBLE FOR PROJECT.
8. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOW FROM TRAVERSING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWN SLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF A CUT OR FILL SLOPE UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADES DONE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
9. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING, RIP-RAP, OR BY OTHER APPROVED STABILIZATION MEASURES.
10. TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF THE PAI-SC INSPECTOR, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATIONS WITHIN THIS TIME PERIOD AS WELL.
11. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NON-MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.
12. FOR FINISHED GRADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE GRADIENTS TO PREVENT WATER FROM PONDING FOR MORE THAN TWENTY FOUR (24) HOURS AFTER THE END OF THE RAINFALL EVENT. DRAINAGE COURSES AND SWALE FLOW AREAS MAY TAKE AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL EVENT TO DRAIN. AREAS DESIGNATED TO HAVE STANDING WATER SHALL NOT BE REQUIRED TO MEET THIS REQUIREMENT.
13. SEDIMENT TRAPS AND BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A FOUNDATION THAT EXISTS OR IS UNDER CONSTRUCTION. NO STRUCTURE MAY BE CONSTRUCTED WITHIN 20 FEET OF AN ACTIVE SEDIMENT TRAP OR BASIN.
14. THE PAI-SC INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SAFETY OR SEDIMENT CONTROL MEASURES, IF DEEMED NECESSARY.
15. ALL TRAP DEPTH DIMENSIONS ARE RELATIVE TO OUTLET ELEVATION. ALL TRAPS MUST HAVE A STABLE OUTFALL. ALL TRAPS AND BASINS SHALL HAVE STABLE INFLOW POINTS.
16. VEGETATIVE STABILIZATION SHALL BE PREFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. REFER TO APPROPRIATE SPECIFICATIONS FOR TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, SODDING, AND GROUND COVERS.
17. SEDIMENT SHALL BE REMOVED AND THE TRAP OR BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE QUARTER OF THE TOTAL DEPTH OF THE TRAP OR BASIN. TOTAL DEPTH SHALL BE MEASURED FROM THE TRAP OR BASIN BOTTOM TO THE CREST OF THE OUTFALL.

ADDITIONAL STATE OF MARYLAND EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES (CONTINUED):

18. SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND, OR TREE-SAVE AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS THEMSELVES ARE BEING PUMPED OUT.
19. ALL WATER REMOVED FROM EXCAVATED AREAS SHALL BE PASSED THROUGH AN APPROVED DEWATERING PRACTICE OR PUMPED TO A SEDIMENT TRAP OR BASIN PRIOR TO DISCHARGE FROM THE SITE
20. WHERE DEEMED APPROPRIATE BY THE ENGINEER OR INSPECTOR, SEDIMENT BASINS AND TRAPS MAY NEED TO BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE MUST CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE DEVELOPER OR OWNER SHALL CHECK WITH LOCAL BUILDING OFFICIALS ON APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY FENCE IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD: THE SAFETY FENCE MUST BE MADE OF WELDED WIRE AND AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THAN 2 INCHES IN WIDTH AND 4 INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.
21. OFF-SITE SPOIL OR BORROW AREAS ON STATE OR FEDERAL PROPERTY MUST HAVE PRIOR APPROVAL BY WMA AND OTHER APPLICABLE STATE, FEDERAL, AND LOCAL AGENCIES; OTHERWISE APPROVAL MUST BE GRANTED BY THE LOCAL AUTHORITIES. ALL WASTE AND BORROW AREAS OFF-SITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED.
22. SITES WHERE INFILTRATION DEVICES ARE USED FOR THE CONTROL OF STORMWATER, EXTREME CARE MUST BE TAKEN TO PREVENT RUNOFF FROM UNSTABILIZED AREAS FROM ENTERING THE STRUCTURE DURING CONSTRUCTION. SEDIMENT CONTROL DEVICES PLACED IN INFILTRATION AREAS MUST HAVE BOTTOM ELEVATIONS AT LEAST TWO (2) FEET HIGHER THAN THE FINISH GRADE BOTTOM ELEVATION OF THE INFILTRATION PRACTICE. WHEN CONVERTING A SEDIMENT TRAP TO AN INFILTRATION DEVICE, ALL ACCUMULATED SEDIMENT MUST BE REMOVED AND DISPOSED OF PRIOR TO FINAL GRADING OF INFILTRATION DEVICE.
23. WHEN A STORM DRAIN SYSTEM OUTFALL IS DIRECTED TO A SEDIMENT TRAP OR SEDIMENT BASIN AND THE SYSTEM IS TO BE USED FOR TEMPORARILY CONVEYING SEDIMENT LADEN WATER, ALL STORM DRAIN INLETS IN NON-SUMP AREAS SHALL HAVE A TEMPORARY ASPHALT BERMS CONSTRUCTED AT THE TIME OF BASE PAVING TO DIRECT GUTTER FLOW INTO THE INLETS TO AVOID SURCHARGING AND OVERFLOW OF INLETS IN SUMP AREAS.
24. SITE INFORMATION:
   a. TOTAL AREA OF FACILITY = 205.94 ACRES
   b. TOTAL AREA OF PROJECT SITE = 80.29 ACRES
   c. AREA WITHIN LIMITS OF DISTURBANCE = 24.41 ACRES
   d. AREA TO BE ROOFED OR PAVED = 0 ACRES OF NEWLY PAVED AREAS
   e. EXCAVATION AREA = 2.37 ACRES
   f. TOTAL CUT = 6,979 CUBIC YARDS
   g. TOTAL FILL = 6,979 CUBIC YARDS
   h. OFF-SITE WASTE / BORROW AREA LOCATION – KING AND QUEEN LANDFILL, PLYMOUTH VIRGINIA

REFER TO DRAWINGS C-9 THROUGH C-14 FOR LIMITS OF DISTURBANCE, EXCAVATION AREAS, AND CUT/FILL VOLUMES RELATED TO INDIVIDUAL AREAS.

INLET PROTECTION NOTE:

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

1. ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.*
2. INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC.

ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E-23 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAINS SHALL BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

MAINTENANCE NOTE:

SILT FENCE ON PAVED AREAS, SUPER SILT FENCE, AND INLET PROTECTION SHALL BE INSPECTED AND MAINTAINED EACH DAY AND AFTER EACH STORM EVENT. MAINTENANCE INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION. ANY DAMAGED OR REMOVED SUPER SILT FENCE SHALL BE REPAIRED OR REPLACED BY THE END OF EACH DAY.

SEQUENCE OF OPERATIONS FOR EACH AREA:

1. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS – SEDIMENT CONTROL (PAI-SC) AT (410) 887-3226 AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
2. NOTIFY MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE), INSPECTION AND COMPLIANCE PROGRAM (410) 537-3510 AT LEAST 7 DAYS PRIOR TO BEGINNING WORK.
3. CONTACT MISS UTILITY TO LOCATE ALL SITE UTILITIES WITHIN LIMITS OF DISTURBANCE. FOLLOWING UTILITY LOCATION, VISIT SITE TO VERIFY SITE CONDITIONS
4. IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE, WHERE THE LIMIT IS WITHIN 50 FEET OF THE FOREST BUFFER/CONSERVATION EASEMENT. THIS SHALL BE COMPLETED BY AND INSPECTED AT, THE PRECONSTRUCTION MEETING.
5. CLEAR AND GRUB FOR SEDIMENT & EROSION CONTROL MEASURES OR DEVICES ONLY.
6. INSTALL SEDIMENT & EROSION CONTROL MEASURES AND DEVICES IN BLOCK G. SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED ONE BLOCK AT A TIME IN THE ORDER OF SEQUENCE NOTED IN ITEM NUMBER 8 BELOW.
7. NOTIFY PAI-SC, INSPECTION AND COMPLIANCE DIVISION UPON COMPLETION OF SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES INSTALLATION.
8. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, CLEAR REMAINDER OF PROPOSED EXCAVATION AREAS. EXCAVATION ACTIVITIES WILL BEGIN IN BLOCK H AND PROCEED TO BLOCKS G, F, D PANHANDLE, AND D. PRIOR TO BEGINNING NEXT BLOCK, CURRENT BLOCK MUST BE STABILIZED. SILT FENCE ON PAVED AREAS, SUPER SILT FENCE, AND INLET PROTECTION SHALL BE INSPECTED AND MAINTAINED EACH DAY AND AFTER EACH STORM EVENT. MAINTENANCE INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION. ANY DAMAGED OR REMOVED FILTER FENCE SHALL BE REPAIRED OR REPLACED BY THE END OF EACH DAY.
9. EXCAVATE SOIL IDENTIFIED IN THE RESIDUAL RISK ANALYSIS AS NEEDING TO BE REMOVED TO MEET A SITE-WIDE 95% UPPER CONFIDENCE LIMIT OF 1 X 10 -5 CANCER RISK, AND TRANSPORT SOIL OFF-SITE FOR DISPOSAL WITHIN A PERMITTED LANDFILL (LANDFILL TO BE IDENTIFIED PRIOR TO EXCAVATION). PERFORM VERIFICATION SAMPLING TO VERIFY REMOVAL OF SOIL TO MEET A SITE-WIDE 95% UCL BELOW THE PRELIMINARY REMEDIAL GOALS. IF SOIL WITH COC CONCENTRATIONS GREATER THAN THE PRG REMAINS, ADJUST EROSION AND SEDIMENT CONTROLS AS REQUIRED, OBTAIN ADJUSTMENT APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR, THEN CONTINUE EXCAVATION. REPEAT THIS PROCESS UNTIL VERIFICATION SAMPLES INDICATE REMOVAL OF SOIL TO MEET THE SITE-WIDE 95% UCL AND BACKFILL EXCAVATION. UPON COMPLETION PERMANENTLY STABILIZE ALL DISTURBED AREAS.
10. DUE TO CONTAMINANT DISTRIBUTION IN BLOCK H AND THE REQUIREMENT TO MAINTAIN PUBLIC PARKING DURING IMPLEMENTATION OF REMEDIAL ACTIVITIES, THE REMEDIAL ACTIVITIES IN BLOCK H WILL BE PERFORMED IN 2 PHASES. PHASE 1 WILL INCLUDE INSTALLING AND MAINTAINING EROSION CONTROL MEASURES WHILE EXCAVATION IS CONDUCTED WITHIN THE SOUTHERN HALF OF BLOCK H. ONCE THESE EXCAVATIONS ARE BACKFILLED AND STABILIZED, EROSION CONTROL MEASURE WILL BE MOVED TO ESTABLISH EROSION CONTROL FOR PHASE 2. DURING IMPLEMENTATION OF PHASE 2 THE EROSION CONTROL MEASURES WILL BE MAINTAINED. EROSION CONTROL MEASURES WILL BE REMOVED FROM BLOCK H FOLLOWING STABILIZATION.
11. UPON STABILIZATION OF SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

STANDARD STABILIZATION NOTE:

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

CONSULTANT'S CERTIFICATION:

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT AND THE CURRENT STATE OF MARYLAND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

DATE _____ SIGNATURE _____

MD. LICENSE NO. _____ PRINTED NAME _____

OWNER'S / DEVELOPER'S CERTIFICATION:

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THIS CONSTRUCTION WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE ALSO CERTIFY THAT THE SITE WILL BE INSPECTED AT THE END OF EACH WORKING DAY, AND THAT ANY NEEDED MAINTENANCE WILL BE COMPLETED SO AS TO INSURE THAT ALL SEDIMENT CONTROL PRACTICES ARE LEFT IN OPERATIONAL CONDITION. I/WE AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATIONS BY THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT BOARD OF SUPERVISORS OR THEIR AUTHORIZED AGENTS.

OWNER / DEVELOPER SIGNATURE _____ DATE _____

PRINTED NAME _____ TITLE _____

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT

APPROVED FOR SEDIMENT CONTROL

_____ DATE _____

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GERMANTOWN, MD 20874
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STATE OF MARYLAND SCOTT A. NESH No. 29015 PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
EROSION AND SEDIMENT CONTROL NOTES

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	TWS
DRAWN BY:	SPC
CHECKED BY:	SAN
SHEET:	10 OF 20

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Point Table			
Point #	Raw Description	Northing	Easting
1	D1	605643.4548	1474446.6578
2	D2	605647.7145	1474474.4289
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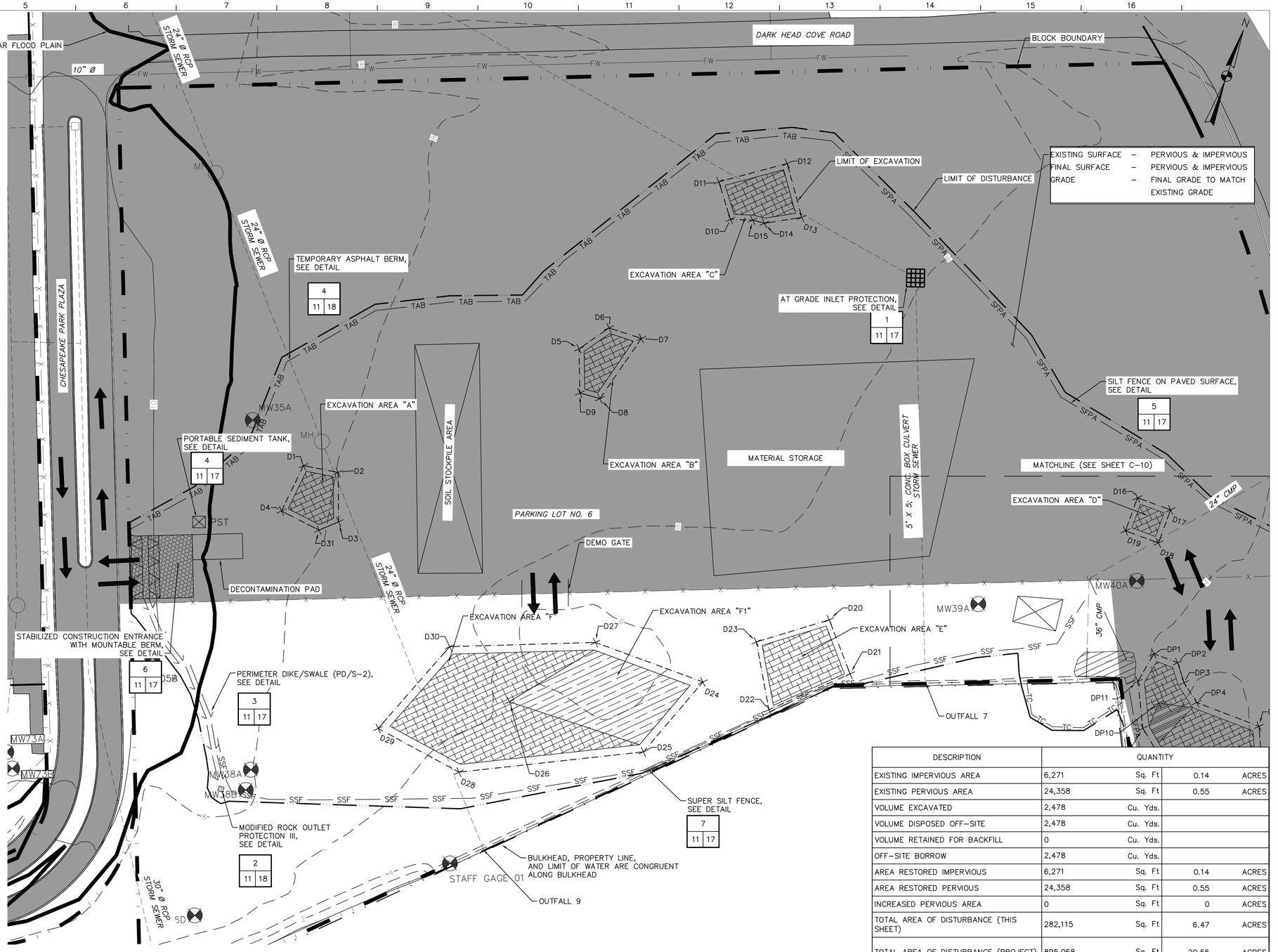
4	D4	605603.4768	1474442.5575
5	D5	605805.6712	1474620.8770
6	D6	605829.5058	1474637.5612
7	D7	605830.4793	1474664.6645
8	D8	605774.1437	1474650.0589
9	D9	605772.9664	1474633.5043
10	D10	605943.7603	1474698.8152
11	D11	605968.6820	1474679.8931
12	D12	606000.9313	1474726.0725
13	D13	605964.6195	1474751.6517
14	D14	605950.0287	1474725.2642
15	D15	605949.2290	1474715.6669
16	D16	605846.3091	1475078.9600
17	D17	605846.2680	1475106.9600
18	D18	605818.2681	1475106.9189
19	D19	605818.3091	1475078.9189
20	D20	605671.1652	1474881.6919
21	D21	605636.4024	1474912.0003
22	D22	605587.5506	1474861.0774
23	D23	605634.7897	1474833.2040
24	D24	605590.3211	1474804.1472
25	D25	605521.8349	1474778.6712
26	D26	605522.8742	1474664.7885
27	D27	605590.6217	1474713.0453
28	D28	605456.5107	1474646.3149
29	D29	605467.1882	1474573.9990
30	D30	605547.8034	1474605.2206
31	D31	605599.4211	1474475.8952



DESCRIPTION	QUANTITY			
EXISTING IMPERVIOUS AREA	6,271	Sq. Ft	0.14	ACRES
EXISTING PERVIOUS AREA	24,358	Sq. Ft	0.55	ACRES
VOLUME EXCAVATED	2,478	Cu. Yds.		
VOLUME DISPOSED OFF–SITE	2,478	Cu. Yds.		
VOLUME RETAINED FOR BACKFILL	0	Cu. Yds.		
OFF–SITE BORROW	2,478	Cu. Yds.		
AREA RESTORED IMPERVIOUS	6,271	Sq. Ft	0.14	ACRES
AREA RESTORED PERVIOUS	24,358	Sq. Ft	0.55	ACRES
INCREASED PERVIOUS AREA	0	Sq. Ft	0	ACRES
TOTAL AREA OF DISTURBANCE (THIS SHEET)	282,115	Sq. Ft	6.47	ACRES
TOTAL AREA OF DISTURBANCE (PROJECT)	895,068	Sq. Ft	20.55	ACRES

LEGEND:

REFER TO DRAWING T–2 FOR GENERAL LEGEND

CONSTRUCTION TRAFFIC

NOTES:

1. REFER TO DRAWING C–8 FOR EROSION AND SEDIMENT CONTROL NOTES AND DRAWING C–18 FOR SEED MIXTURES
2. STORM DRAINS LOCATED WITHIN THE LIMITS OF EXCAVATION WILL BE PROTECTED AND SUPPORTED DURING EXCAVATION AND BACKFILL ACTIVITIES
3. PERVIOUS AREAS TO BE STABILIZED WITH PERMANENT SEED MIXTURE PROVIDED ON DRAWING C–18.
4. ASPHALT WILL BE REMOVED IN THE AREAS DESIGNATED FOR PLACEMENT OF THE CONSTRUCTION ENTRANCE PRIOR TO THE CONSTRUCTION ENTRANCE INSTALLATION.
5. FOR ACCESS PURPOSES THE EASTERNMOST EXCAVATION AREAS WILL BE EXCAVATED FIRST. AFTER RESTORATION OF THE EASTERNMOST EXCAVATION AREAS EXCAVATION WILL PROCEED WEST.
6. THE FENCE SOUTH OF THE PAVED SURFACE WILL BE CUT TO GAIN ACCESS TO THE EXCAVATION AREAS IN THE GRASS.
7. NO NEW UTILITIES PROPOSED.
8. ALL WORK PERFORMED WITHIN LOCKHEED MARTIN PROPERTY LINES.
9. EXISTING CONTOURS AND SURFACE CONDITIONS WILL BE RE–ESTABLISED ONCE THE CONTAMINATED SOIL HAS BEEN REMOVED.
10. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE DISTURBED AREA ONLY VIA THE STABILIZED CONSTRUCTION ENTRANCE.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

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GERMANTOWN, MD 20874
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STATE OF MARYLAND — SCOTT A. NASH — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK D –
GRADING AND EROSION & SEDIMENT CONTROL PLAN

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	11 OF 20

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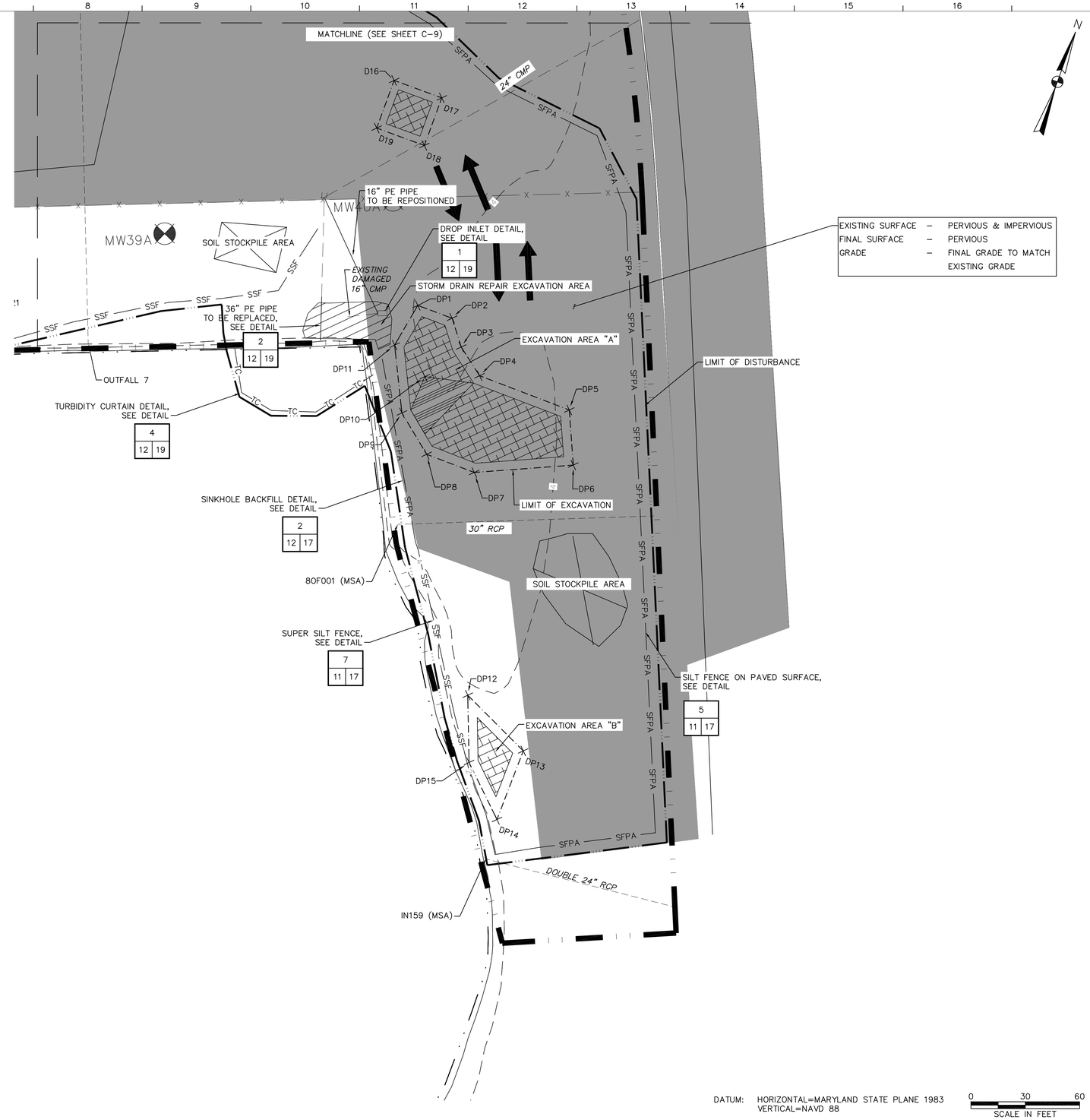
Point Table			
Point #	Raw Description	Northing	Easting
32	DP1	605734.1158	1475133.6770
33	DP2	605733.9248	1475153.9137
34	DP3	605720.7363	1475164.0736
35	DP4	605709.3020	1475179.0102
36	DP5	605708.4685	1475232.0015
37	DP6	605680.6582	1475244.4845
38	DP7	605658.1438	1475194.5103
39	DP8	605658.5608	1475166.3780
40	DP9	605675.3543	1475145.7523
41	DP10	605698.5194	1475150.7839
42	DP11	605709.1517	1475129.1654
43	DP12	605541.3988	1475233.1791
44	DP13	605522.9955	1475272.4765
45	DP14	605482.4726	1475271.7826
46	DP15	605506.7529	1475246.5366

DESCRIPTION	QUANTITY			
EXISTING IMPERVIOUS AREA	34,486	Sq. Ft	0.79	ACRES
EXISTING PERVIOUS AREA	2,031	Sq. Ft	0.05	ACRES
VOLUME EXCAVATED	1,139	Cu. Yds.		
VOLUME DISPOSED OFF-SITE	1,139	Cu. Yds.		
VOLUME RETAINED FOR BACKFILL	0	Cu. Yds.		
OFF-SITE BORROW	1,139	Cu. Yds.		
AREA RESTORED IMPERVIOUS	0	Sq. Ft	0	ACRES
AREA RESTORED PERVIOUS	36,517	Sq. Ft	0.84	ACRES
INCREASED PERVIOUS AREA	34,486	Sq. Ft	0.79	ACRES
TOTAL AREA OF DISTURBANCE (THIS SHEET)	59,771	Sq. Ft	1.37	ACRES
TOTAL AREA OF DISTURBANCE (PROJECT)	895,068	Sq. Ft	20.55	ACRES

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND
→ CONSTRUCTION TRAFFIC

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND DRAWING C-18 FOR SEED MIXTURES
2. STORM DRAINS LOCATED WITHIN THE LIMITS OF EXCAVATION WILL BE PROTECTED AND SUPPORTED DURING EXCAVATION AND BACKFILL ACTIVITIES
3. STORM DRAIN REPAIR WILL BE COMPLETED BEFORE ANY OTHER INTRUSIVE WORK BEGINS IN THE BLOCK D PANHANDLE.
4. ALL IMPERVIOUS SURFACES WITHIN THE LIMITS OF DISTURBANCE IN THE BLOCK D PANHANDLE WILL BE REMOVED AND MADE PERVIOUS.
5. PERVIOUS AREAS TO BE STABILIZED WITH PERMANENT SEED MIXTURE PROVIDED ON DRAWING C-18.
6. FOR ACCESS PURPOSES THE SOUTHERNMOST EXCAVATION AREA WILL BE EXCAVATED FIRST. AFTER RESTORATION OF THE SOUTHERNMOST EXCAVATION AREAS EXCAVATION WILL PROCEED NORTH.
7. ACCESS TO THE BLOCK D PANHANDLE WILL BE THROUGH THE BLOCK D CONSTRUCTION ENTRANCE.
8. NO NEW UTILITIES PROPOSED.
9. ALL WORK PERFORMED WITHIN LOCKHEED MARTIN PROPERTY LINES.
10. EXISTING CONTOURS WILL BE RE-ESTABLISED ONCE THE CONTAMINATED SOIL HAS BEEN REMOVED.
11. SINKHOLE BACKFILL WILL BE USED AS NEEDED AS SINKHOLES ARE ENCOUNTERED. SINKHOLE BACKFILL WILL ALSO BE USED TO BACKFILL STORM DRAIN REPAIR AREA.
12. THE TURBIDITY CURTAIN WILL BE REMOVED UPON COMPLETION OF THE STORM DRAIN REPAIR AND RELOCATED TO ADDRESS ANY SINKHOLE REPAIRS NEEDED ALONG THE BULKHEAD WALL.
13. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE DISTURBED AREA ONLY VIA THE STABILIZED CONSTRUCTION ENTRANCE.



DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

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STATE OF MARYLAND SCOTT A. KEISER No. 29015 PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK D PANHANDLE –
GRADING AND EROSION & SEDIMENT CONTROL PLAN

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	12 OF 20

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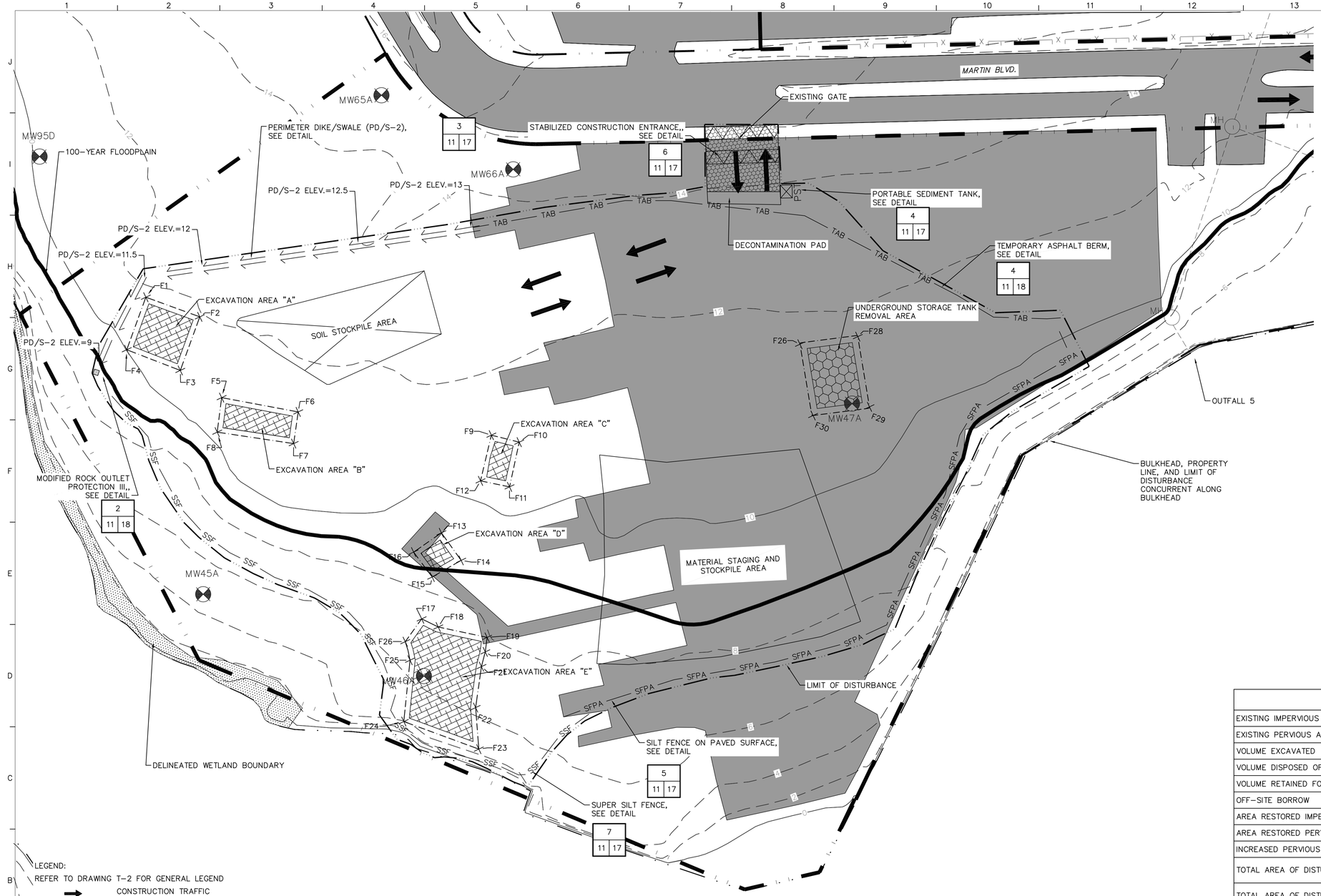

Point Table			
Point #	Raw Description	Northing	Easting
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50	F4	604483.7677	1472935.3877
51	F5	604473.9629	1473017.8872
52	F6	604483.9090	1473077.9563
53	F7	604459.4165	1473083.0865
54	F8	604447.3925	1473023.8814
55	F9	604518.4736	1473226.0233
56	F10	604520.7860	1473248.3761
57	F11	604485.3408	1473253.2089
58	F12	604481.9954	1473230.2882
59	F13	604433.3480	1473215.4459
60	F14	604418.4130	1473237.3150
61	F15	604398.4393	1473220.4951
62	F16	604411.7920	1473200.1990
63	F17	604364.8863	1473223.9564
64	F18	604363.3333	1473238.2922
65	F19	604368.7718	1473277.0110
66	F20	604357.6111	1473279.5046
67	F21	604345.7951	1473280.6390
68	F22	604314.1102	1473287.3261
69	F23	604284.4666	1473300.7645
70	F24	604284.6576	1473238.3046
71	F25	604331.4227	1473226.4848
72	F26	604343.7209	1473218.0049
73	F26	604667.7844	1473428.3732
74	F28	604688.8209	1473468.8011
75	F29	604640.3633	1473496.1634
76	F30	604618.9307	1473457.0665

DESCRIPTION	QUANTITY			
EXISTING IMPERVIOUS AREA	2,625	Sq. Ft	0.06	ACRES
EXISTING PERVIOUS AREA	9,810	Sq. Ft	0.23	ACRES
VOLUME EXCAVATED	1,504	Cu. Yds.		
VOLUME DISPOSED OFF-SITE	1,504	Cu. Yds.		
VOLUME RETAINED FOR BACKFILL	0	Cu. Yds.		
OFF-SITE BORROW	1504	Cu. Yds.		
AREA RESTORED IMPERVIOUS	2,625	Sq. Ft	0.06	ACRES
AREA RESTORED PERVIOUS	9,810	Sq. Ft	0.23	ACRES
INCREASED PERVIOUS AREA	0	Sq. Ft	0	ACRES
TOTAL AREA OF DISTURBANCE (THIS SHEET)	228,674	Sq. Ft.	5.25	ACRES
TOTAL AREA OF DISTURBANCE (PROJECT)	895,068	Sq. Ft	20.55	ACRES

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND
CONSTRUCTION TRAFFIC

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND DRAWING C-18 FOR SEED MIXTURES
2. STORM DRAINS LOCATED WITHIN THE LIMITS OF EXCAVATION WILL BE PROTECTED AND SUPPORTED DURING EXCAVATION AND BACKFILL ACTIVITIES
3. PERVIOUS AREAS TO BE STABILIZED WITH PERMANENT SEED MIXTURE PROVIDED ON DRAWING C-18.
4. NO NEW UTILITIES PROPOSED.
5. ALL WORK PERFORMED WITHIN LOCKHEED MARTIN PROPERTY LINES.
6. EXISTING CONTOURS AND SURFACE CONDITIONS WILL BE RE-ESTABLISED ONCE THE CONTAMINATED SOIL HAS BEEN REMOVED.
7. ASPHALT WILL BE REMOVED IN THE AREAS DESIGNATED FOR PLACEMENT OF THE CONSTRUCTION ENTRANCE PRIOR TO THE CONSTRUCTION ENTRANCE INSTALLATION.
8. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE DISTURBED AREA ONLY VIA THE STABILIZED CONSTRUCTION ENTRANCE.

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 40 80
SCALE IN FEET

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GERMANTOWN, MD 20874
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STATE OF MARYLAND — SCOTT I. ASSOUR — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK F - GRADING AND EROSION & SEDIMENT CONTROL PLAN

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	13 OF 20

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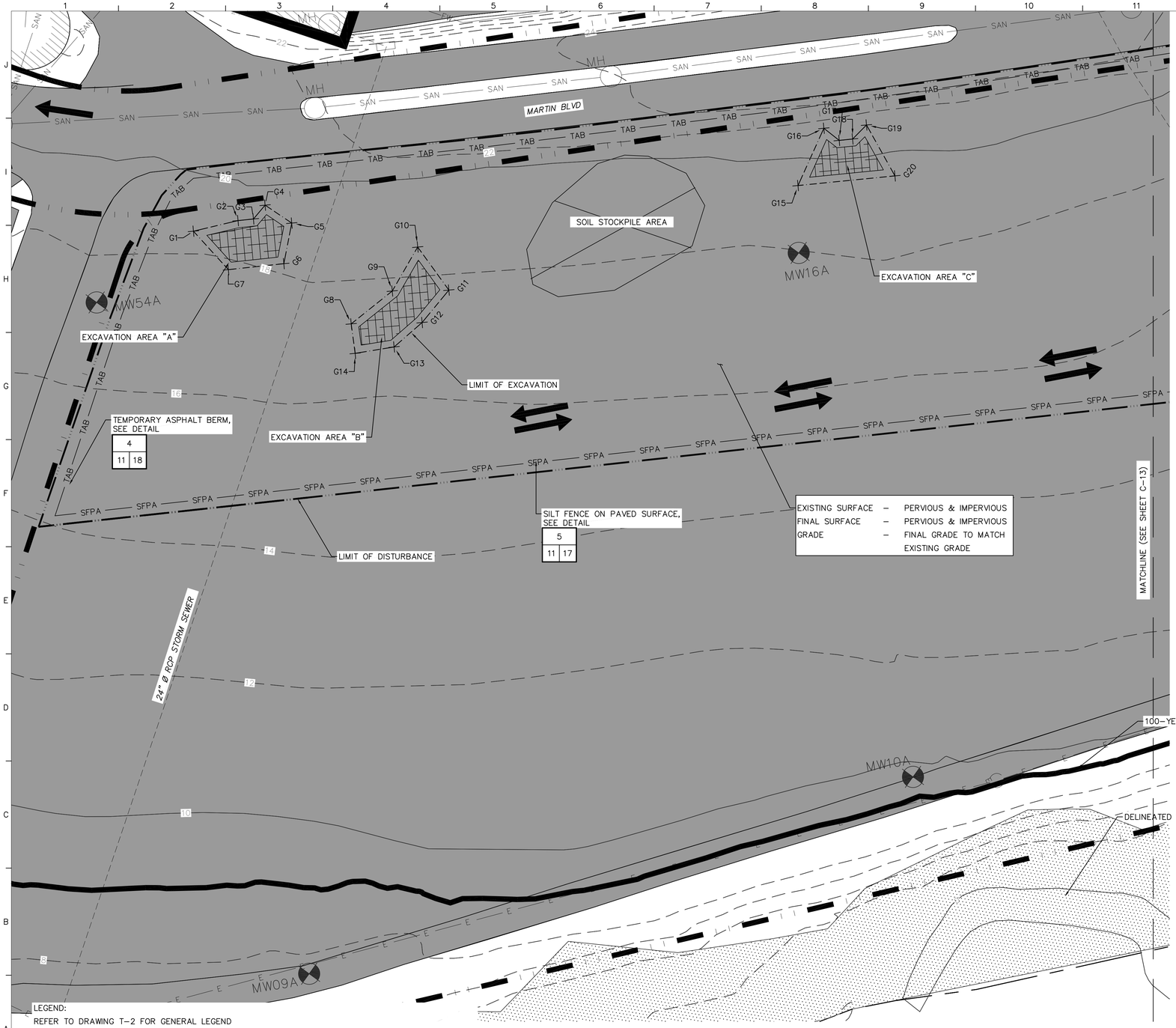

Point Table			
Point #	Raw Description	Northing	Easting
77	G1	605752.2724	1471912.8890
78	G2	605736.8995	1471933.5871
79	G3	605730.8434	1471939.8416
80	G4	605730.8197	1471950.0107
81	G5	605712.8725	1471951.9336
82	G6	605701.5950	1471931.5855
83	G7	605723.3387	1471908.9543
84	G8	605650.8421	1471929.9968
85	G9	605645.0128	1471958.9837
86	G10	605649.9680	1471987.1254
87	G11	605620.9742	1471979.8407
88	G12	605620.7772	1471956.1961
89	G13	605624.0044	1471935.5594
90	G14	605638.4710	1471918.7280
91	G15	605508.3654	1472151.0680
92	G16	605517.9383	1472185.0722
93	G17	605506.9528	1472185.3953
94	G18	605501.6709	1472190.8341
95	G19	605500.7677	1472201.8988
96	G20	605470.1179	1472190.2561

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND
➡ CONSTRUCTION TRAFFIC

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND DRAWING C-18 FOR SEED MIXTURES
2. STORM DRAINS AND ELECTRIC UTILITIES LOCATED WITHIN OR IN CLOSE PROXIMITY TO THE LIMIT OF EXCAVATION WILL BE PROTECTED AND SUPPORTED DURING EXCAVATION AND BACKFILLING ACTIVITIES
3. NO NEW UTILITIES PROPOSED.
4. ALL WORK PERFORMED WITHIN LOCKHEED MARTIN PROPERTY LINES.
5. EXISTING CONTOURS AND SURFACE CONDITIONS WILL BE RE-ESTABLISED ONCE THE CONTAMINATED SOIL HAS BEEN REMOVED.
6. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE DISTURBED AREA ONLY VIA THE STABILIZED CONSTRUCTION ENTRANCE.

DESCRIPTION	QUANTITY			
EXISTING IMPERVIOUS AREA	3,778	Sq. Ft	0.09	ACRES
EXISTING PERVIOUS AREA	0	Sq. Ft	0	ACRES
VOLUME EXCAVATED	280	Cu. Yds.		
VOLUME DISPOSED OFF-SITE	280	Cu. Yds.		
VOLUME RETAINED FOR BACKFILL	0	Cu. Yds.		
OFF-SITE BORROW	280	Cu. Yds.		
AREA RESTORED IMPERVIOUS	3,778	Sq. Ft	0.09	ACRES
AREA RESTORED PERVIOUS	0	Sq. Ft	0	ACRES
INCREASED PERVIOUS AREA	0	Sq. Ft	0	ACRES
TOTAL AREA OF DISTURBANCE (THIS SHEET)	120,093	Sq. Ft	2.76	ACRES
TOTAL AREA OF DISTURBANCE (PROJECT)	895,068	Sq. Ft	20.55	ACRES

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 30 60
SCALE IN FEET

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STATE OF MARYLAND — SCOTT A. KESSLER — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK G – GRADING AND EROSION & SEDIMENT CONTROL PLAN (SHEET 1 OF 2)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	14 OF 20

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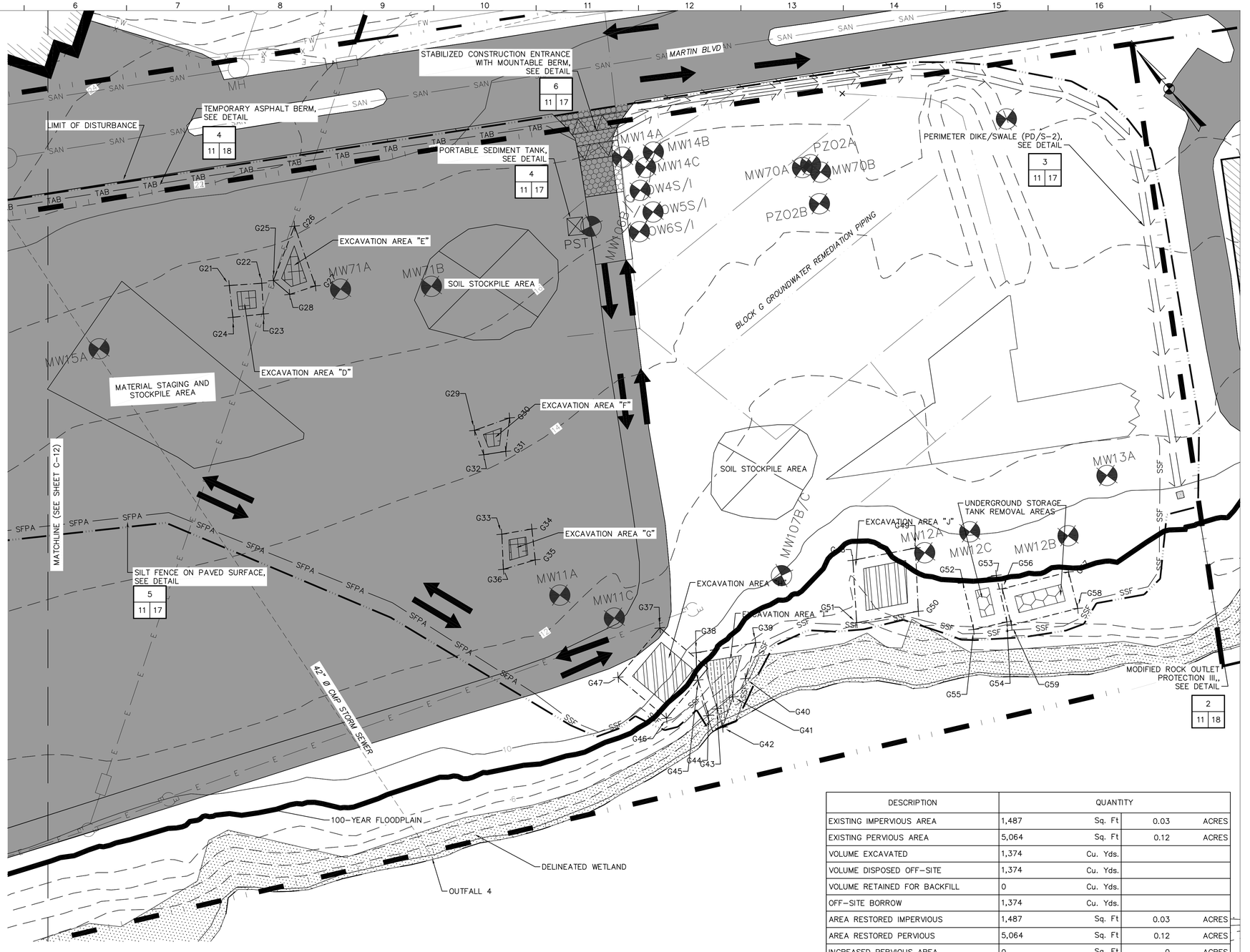
Point Table			
Point #	Raw Description	Northing	Easting
97	G21	605281.0611	1472374.7767
98	G22	605267.3422	1472388.0344
99	G23	605254.9137	1472374.9090
100	G24	605267.4747	1472361.8871
101	G25	605263.1946	1472393.6652
102	G26	605274.1281	1472426.0283
103	G27	605242.2320	1472407.0660
104	G28	605250.6220	1472393.5549
105	G29	605116.4282	1472402.0919
106	G30	605105.3364	1472420.8960
107	G31	605094.4613	1472404.4108
108	G32	605103.0649	1472394.6775
109	G33	605065.0474	1472365.7439
110	G34	605053.4663	1472379.3838
111	G35	605040.3530	1472366.7691
112	G36	605051.0903	1472350.5861
113	G37	604958.7707	1472383.2082
114	G38	604933.1068	1472385.7139
115	G39	604910.2330	1472412.5966
116	G40	604901.2642	1472392.7244
117	G41	604899.9372	1472379.6902
118	G42	604893.1760	1472362.1662
119	G43	604902.7147	1472368.3659
120	G44	604903.9658	1472362.1483
121	G45	604921.9642	1472374.1472
122	G46	604921.7659	1472345.1663
123	G47	604958.8661	1472345.2596
124	G48	604897.6387	1472486.2604
125	G49	604874.1448	1472515.2867
126	G50	604849.0230	1472487.9639
127	G51	604872.3648	1472459.6203
128	G52	604839.6392	1472517.5697
129	G53	604827.5434	1472533.4974
130	G54	604805.2446	1472516.5633
131	G55	604817.3404	1472500.6356
132	G56	604819.7954	1472529.7292
133	G57	604796.4135	1472562.1836
134	G58	604778.5636	1472549.3235
135	G59	604801.9455	1472516.8692



DESCRIPTION	QUANTITY			
EXISTING IMPERVIOUS AREA	1,487	Sq. Ft	0.03	ACRES
EXISTING PERVIOUS AREA	5,064	Sq. Ft	0.12	ACRES
VOLUME EXCAVATED	1,374	Cu. Yds.		
VOLUME DISPOSED OFF-SITE	1,374	Cu. Yds.		
VOLUME RETAINED FOR BACKFILL	0	Cu. Yds.		
OFF-SITE BORROW	1,374	Cu. Yds.		
AREA RESTORED IMPERVIOUS	1,487	Sq. Ft	0.03	ACRES
AREA RESTORED PERVIOUS	5,064	Sq. Ft	0.12	ACRES
INCREASED PERVIOUS AREA	0	Sq. Ft	0	ACRES
TOTAL AREA OF DISTURBANCE (THIS SHEET)	197,381	Sq. Ft	4.53	ACRES
TOTAL AREA OF DISTURBANCE (PROJECT)	895,068	Sq. Ft	20.55	ACRES

DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

0 30 60
SCALE IN FEET

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND
TBD TO BE DETERMINED
➡ CONSTRUCTION TRAFFIC

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES AND DRAWING C-18 FOR SEED MIXTURES
2. STORM DRAINS AND ELECTRIC UTILITIES LOCATED WITHIN OR IN CLOSE PROXIMITY TO THE LIMIT OF EXCAVATION WILL BE PROTECTED AND SUPPORTED DURING EXCAVATION AND BACKFILLING ACTIVITIES
3. NO NEW UTILITIES PROPOSED.
4. ALL WORK PERFORMED WITHIN LOCKHEED MARTIN PROPERTY LINES.
5. EXISTING CONTOURS AND SURFACE CONDITIONS WILL BE RE-ESTABLISED ONCE THE CONTAMINATED SOIL HAS BEEN REMOVED.
6. COORDINATES LISTED IN TABLE ABOVE FOR POINTS 128 THROUGH 135 ARE APPROXIMATE. ACTUAL COORDINATES WILL BE DETERMINED IN THE FIELD FOLLOWING GEOPHYSICS TO LOCATE UNDERGROUND STORAGE TANKS.
7. ASPHALT WILL BE REMOVED IN THE AREAS DESIGNATED FOR PLACEMENT OF THE CONSTRUCTION ENTRANCE PRIOR TO THE CONSTRUCTION ENTRANCE INSTALLATION.
8. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE DISTURBED AREA ONLY VIA THE STABILIZED CONSTRUCTION ENTRANCE.

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STATE OF MARYLAND SCOTT A. GOLD No. 29015 PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK G – GRADING AND EROSION & SEDIMENT CONTROL PLAN (SHEET 2 F 2)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	15 OF 20

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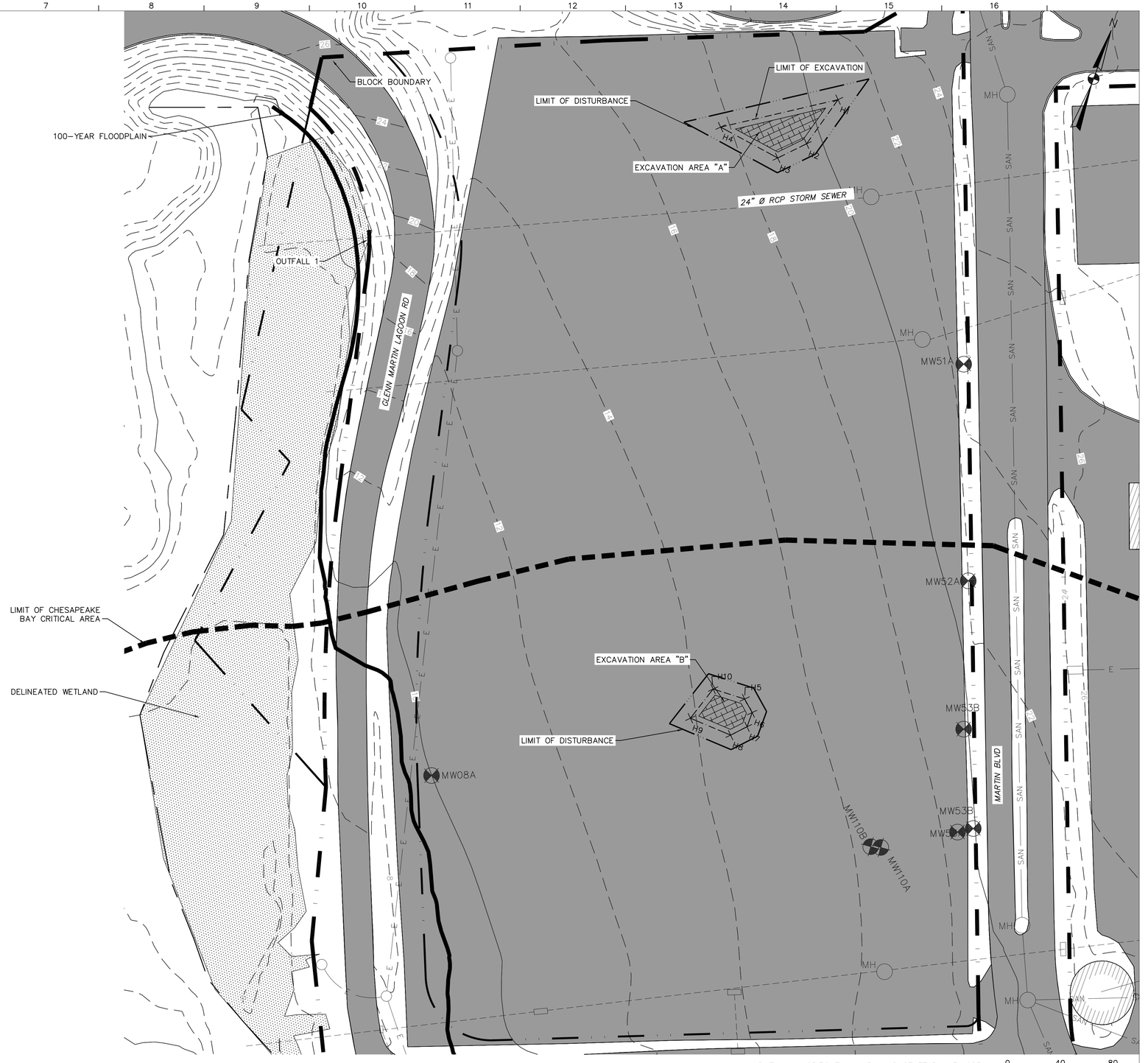
Point Table			
Point #	Raw Description	Northing	Easting
136	H1	606467.6187	1471519.7712
137	H2	606427.8785	1471508.7632
138	H3	606410.2361	1471491.7907
139	H4	606417.4512	1471442.9496
140	H5	606014.9504	1471608.9217
141	H6	606007.2382	1471617.8162
142	H7	605995.7544	1471617.8162
143	H8	605985.4932	1471608.2688
144	H9	605987.1208	1471575.1174
145	H10	606013.9053	1471583.7971

DESCRIPTION	QUANTITY			
EXISTING IMPERVIOUS AREA	2,751	Sq. Ft	0.06	ACRES
EXISTING PERVIOUS AREA	0	Sq. Ft	0	ACRES
VOLUME EXCAVATED	204	Cu. Yds.		
VOLUME DISPOSED OFF-SITE	204	Cu. Yds.		
VOLUME RETAINED FOR BACKFILL	0	Cu. Yds.		
OFF-SITE BORROW	204	Cu. Yds.		
AREA RESTORED IMPERVIOUS	2,751	Sq. Ft	0.06	ACRES
AREA RESTORED PERVIOUS	0	Sq. Ft	0	ACRES
INCREASED PERVIOUS AREA	0	Sq. Ft	0	ACRES
TOTAL AREA OF DISTURBANCE (THIS SHEET)	7,034	Sq. Ft	0.16	ACRES
TOTAL AREA OF DISTURBANCE (PROJECT)	895,068	Sq. Ft	20.55	ACRES

LEGEND:
REFER TO DRAWING T-2 FOR GENERAL LEGEND
CONSTRUCTION TRAFFIC

NOTES:
1. REFER TO DRAWING C-8 FOR EROSION AND SEDIMENT CONTROL NOTES.
2. NO NEW UTILITIES PROPOSED.
3. ALL WORK PERFORMED WITHIN LOCKHEED MARTIN PROPERTY LINES.
4. EXISTING CONTOURS AND SURFACE CONDITIONS WILL BE RE-ESTABLISED ONCE THE CONTAMINATED SOIL HAS BEEN REMOVED.
5. CONTRACTOR SHALL ONLY DISTURB THE AREAS WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY.
6. STABILIZATION SHALL BE THE APPLICATION OF STONE BASE.
7. EROSION AND SEDIMENT CONTROLS WILL NOT BE INSTALLED IN BLOCK H DUE TO SAME DAY STABILIZATION OF EXCAVATED AREAS. CONTRACTOR SHALL DISTURB ONLY THAT WHICH CAN BE COMPLETED AND STABILIZED WITH STONE BASE (MINIMUM) BY THE END OF EACH WORK DAY.



DATUM: HORIZONTAL=MARYLAND STATE PLANE 1983
VERTICAL=NAVD 88

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STATE OF MARYLAND — SCOTT A. KEISER — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
BLOCK H -
GRADING AND EROSION & SEDIMENT CONTROL PLAN

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	16 OF 20

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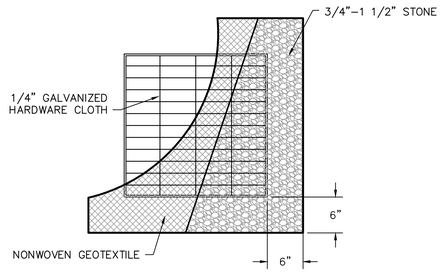
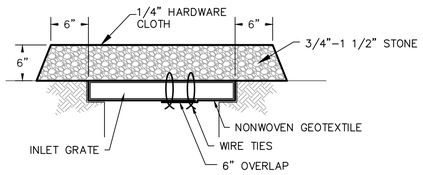


PLAN/CUT AWAY VIEW



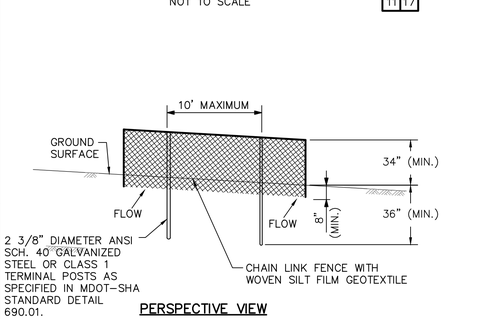
CROSS SECTION

CONSTRUCTION SPECIFICATIONS

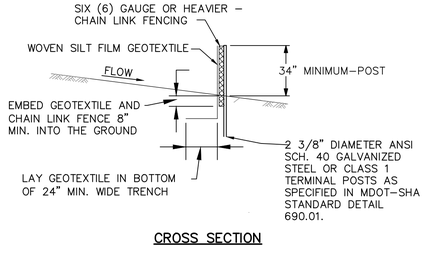
1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

AT GRADE INLET PROTECTION DETAIL

NOT TO SCALE — 1 | 11 | 17



PERSPECTIVE VIEW



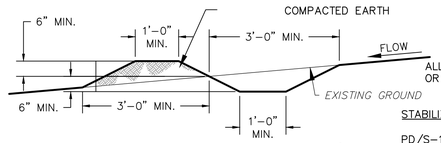
CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 6 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. LAY THE GEOTEXTILE IN THE BOTTOM OF THE 24 INCH WIDE TRENCH.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF THREE VERTICAL FEET TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

SUPER SILT FENCE DETAIL

NOT TO SCALE — 7 | 11 | 17

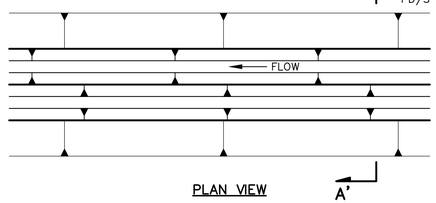


CROSS SECTION A–A'

STABILIZATION

PD/S–1: SEED AND MULCH (DRAINING ≤ 1 ACRE) (NOT ALLOWED FOR CLEAR WATER DIVERSION)

PD/S–2: SEED AND COVER WITH SOIL, STABILIZATION MATTING OR LINE WITH SOD (DRAINING BETWEEN 1 AND 2 ACRES)



PLAN VIEW

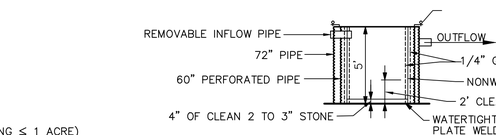
CONSTRUCTION SPECIFICATIONS

1. REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF DIKE/SWALE.
2. EXCAVATE OR SHAPE DIKE/SWALE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
3. COMPACT FILL.
4. CONSTRUCT DIKE/SWALE ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
6. STABILIZE DIKE/SWALE WITHIN 3 DAYS OF INSTALLATION. STABILIZE DIKE/SWALES USED FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
7. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP PERIMETER DIKE/SWALE AND POINT OF DISCHARGE FREE OF EROSION AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B–4 VEGETATIVE STABILIZATION.
8. UPON REMOVAL OF DIKE/SWALE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, MULCH, OR AS SPECIFIED ON APPROVED PLAN.

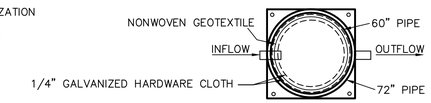
NOTE: MAXIMUM DRAINAGE AREA FOR THIS PRACTICE IS 2 ACRES.

PERIMETER DIKE/SWALE DETAIL

NOT TO SCALE — 3 | 11 | 17



ELEVATION



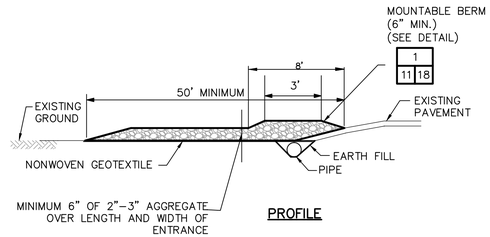
PLAN VIEW

CONSTRUCTION SPECIFICATIONS

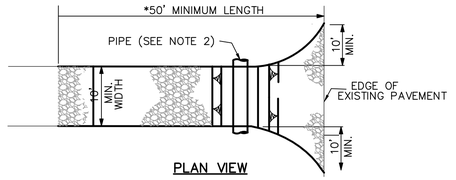
1. PROVIDE 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP CAPACITY. REQUIRED STORAGE VOLUME MAY BE ATTAINED BY PLACEMENT OF TANKS IN PARALLEL WITH INFLOW EVENLY DISTRIBUTED AMONG TANKS. OVERTOPPING OF TANKS IS NOT PERMITTED.
2. USE 60 INCH CORRUGATED METAL OR PLASTIC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER FOR THE INNER PIPE. LINE PIPE WITH NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS, SANDWICHED BETWEEN, AND ATTACHED TO, ¼ INCH HARDWARE CLOTH.
3. OVERLAP GEOTEXTILE 8 INCHES MINIMUM AT VERTICAL SEAM AND AT THE BOTTOM PLATE.
4. ANCHOR GEOTEXTILE AT BOTTOM OF TANK WITH 4 INCHES OF 2 TO 3 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE.
5. USE 72 INCH CORRUGATED METAL OR PLASTIC OUTER PIPE WITH PERMANENT OUTFLOW PIPE WITH INVERT LOWER THAN INFLOW PIPE
6. INFLOW PIPE MUST DISCHARGE INTO INNER PIPE AND BE REMOVABLE.
7. PLACE TANK ON LEVEL SURFACE AND DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
8. A PORTABLE SEDIMENT TANK REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT FROM INNER PIPE WHEN IT REACHES TWO FEET IN DEPTH. IF SYSTEM CLOGS, PULL OUT INNER PIPE, REMOVE ACCUMULATED SEDIMENT, AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

PORTABLE SEDIMENT TANK DETAIL

NOT TO SCALE — 4 | 11 | 17



PROFILE



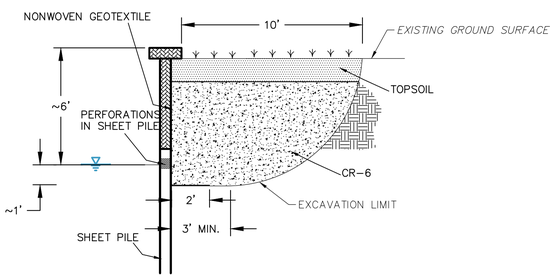
PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM DETAIL

NOT TO SCALE — 6 | 11 | 17

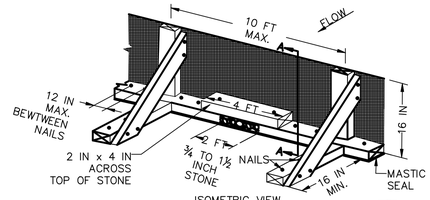


CONSTRUCTION SPECIFICATIONS

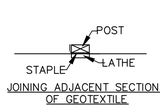
1. CR–6 WILL HAVE COMPRESSIVE STRENGTH OF 50 TO 100 PSI.
2. CR–6 WILL BE PLACED IN MAX 12–INCH LIFTS. THE NEXT LIFT WILL NOT BE PLACED UNTIL THE UNDERLYING LIFT IS STRONG ENOUGH TO HAVE A ONE FOOT VERTICAL FACE UNDER LOAD OF THE NEXT LIFT (I.E. APPROXIMATELY 2 PSI OR 288 PSF OF COMPRESSIVE STRENGTH).
3. BOTTOM OF THE EXCAVATION LIMIT NEAR THE SHEET PILE WILL BE 3 FEET HORIZONTAL OR SLOPING AWAY FROM THE SHEET PILE.

SINKHOLE BACKFILL DETAIL

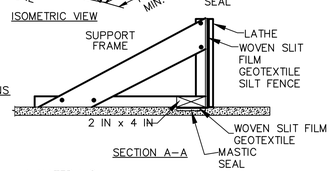
NOT TO SCALE — 2 | 12 | 17



ISOMETRIC VIEW



JOINING ADJACENT SECTIONS OF GEOTEXTILE



SECTION A–A

1. USE NOMINAL 2 INCH X 4 INCH LUMBER.
2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS.
3. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
4. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
5. PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
6. KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
7. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH LATHE.
8. PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT–LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
9. SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
10. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

SILT FENCE ON PAVED SURFACE DETAIL

NOT TO SCALE — 5 | 11 | 17

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT

APPROVED FOR SEDIMENT CONTROL

DATE

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GERMANTOWN, MD 20874
T: (301) 528–5552 | F: (301) 528–3000

STATE OF MARYLAND — SCOTT A. NESH — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
EROSION AND SEDIMENT CONTROL DETAILS
(SHEET 1 OF 3)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	TWS
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	17 OF 20

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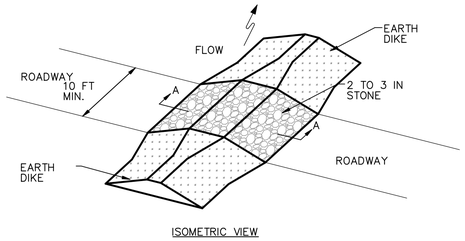
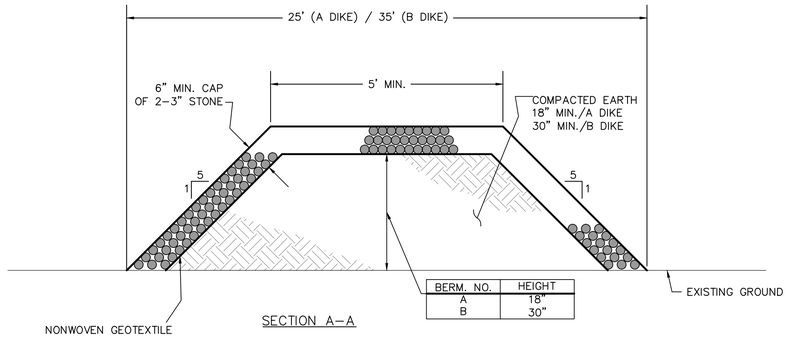


ISOMETRIC VIEW



BERM. NO.	HEIGHT
A	18"
B	30"

SECTION A-A

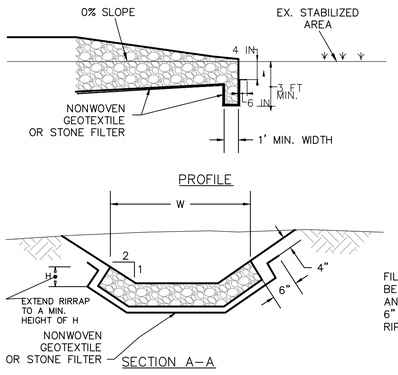
CONSTRUCTION SPECIFICATIONS

1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
3. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
4. MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

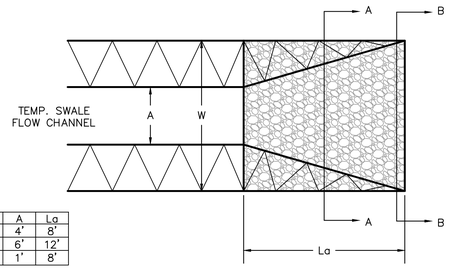
MOUNTABLE BERM DETAIL

NOT TO SCALE

1 | 11 | 18



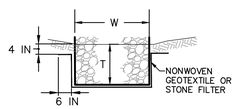
STONE SHALL BE CLASS I RIP-RAP D50=9.5" T=19"



	W	A	La
'A' TEMP. SWALE	8'	4'	8'
'B' TEMP. SWALE	12'	6'	12'
PD/S	2'	1'	8'

PLAN VIEW

FILTER FABRIC SHALL BE EMBEDDED A MIN. OF 4" AND SHALL EXTEND AT LEAST 6" BEYOND THE EDGE OF THE RIP-RAP



SECTION B-B

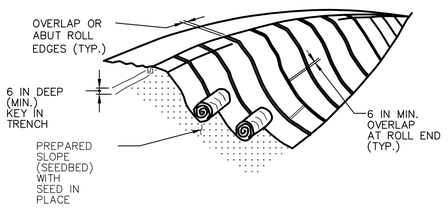
CONSTRUCTION SPECIFICATIONS

1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (⅜ TO 1½ INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MODIFIED ROCK OUTLET PROTECTION III DETAIL

NOT TO SCALE

2 | 11 | 18



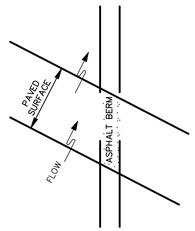
TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

NOT TO SCALE

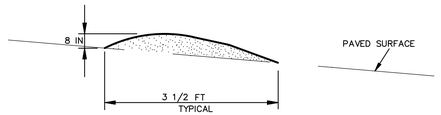
3 | 11 | 18

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN 1.5 LB/FT^2.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 11/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.



PLAN VIEW



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. CONSTRUCT BERM ON AN UNINTERRUPTED, CONTINUOUS GRADE.
2. INSTALL BERM TO CONFORM TO CROSS SECTION DIMENSIONS OF A UNIFORM HEIGHT OF 8 INCHES MINIMUM AND APPROXIMATE WIDTH OF 3½ FEET.
3. PROVIDE OUTLET PROTECTION AS REQUIRED ON PLAN.
4. COMPACT ASPHALT BERM.
5. REPAIR DAMAGED ASPHALT. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.
6. UPON REMOVAL OF ASPHALT BERM, RETURN TO ORIGINAL CONDITIONS OR AS SPECIFIED ON APPROVED PLAN.

TEMPORARY ASPHALT BERM

NOT TO SCALE

4 | 11 | 18

GEOTEXTILE SPECIFICATIONS

		WOVEN SILT FILM		WOVEN MONOFILAMENT		NONWOVEN GEOTEXTILE	
		MINIMUM AVERAGE ROLL VALUE*					
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD
GRAB TENSILE STRENGTH	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb
GRAB TENSILE ELONGATION	ASTM D-4632	15%	10%	15%	15%	50%	50%
TRAPEZODIAL TEAR STRENGTH	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb
PUNCTURE STRENGTH	ASTM D-6241	450 lb		900 lb		450 lb	
APPARENT OPENING SIZE**	ASTM D-4751	U.S. SIEVE 30 (0.59 mm)		U.S. SIEVE 70 (0.21 mm)		U.S. SIEVE 70 (0.21 mm)	
PERMITTIVITY	ASTM D-4491	0.05 sec^{-1}		0.28 sec^{-1}		1.1 sec^{-1}	
ULTRAVIOLET RESISTANCE RETAINED AT 500 HOURS	ASTM D-4355	70% strength		70% strength		70% strength	

* ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.
** VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM TO THE VALUES IN THIS TABLE.

THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS, AND FORMED INTO A STABLE NETWORK SO THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING SELVAGES.

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY OVERLAP THE SECTIONS BY AT LEAST ONE FOOT. THE GEOTEXTILE MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER EXPOSED FABRIC. WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT

APPROVED FOR SEDIMENT CONTROL

DATE

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GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

STATE OF MARYLAND SCOTT A. NESBIT No. 29015 PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
EROSION AND SEDIMENT CONTROL DETAILS
(SHEET 2 OF 3)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	TWS
DRAWN BY:	SPC
CHECKED BY:	SAN
SHEET:	18 OF 20

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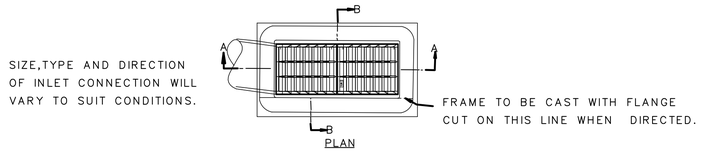
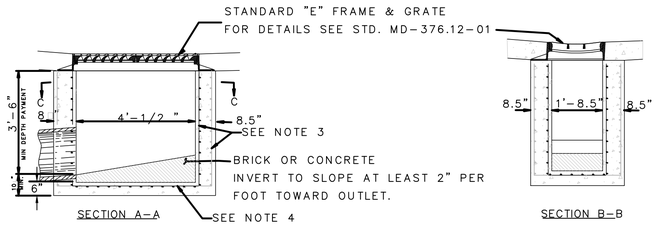
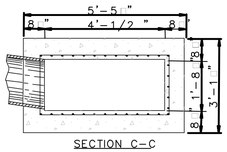




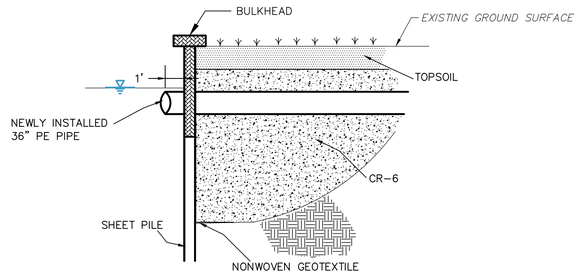


CONSTRUCTION SPECIFICATIONS

1. BRICK FOR MASONRY TO COMPLY WITH THE LATEST SHA. SPECIFICATIONS.
2. INLET SHALL BE CONSTRUCTED OF REINFORCED CONCRETE MIX NO. 2 (3,000 PSI)
3. WHEN DEPTH IS LESS THAN 7'-0", WALL REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 6" C/C, TWO WAYS, AND HAVE 3" COVER ON INSIDE. WHEN DEPTH IS GREATER THAN 7'-0" AND LESS THAN 15'-0", WALL REINFORCEMENT TO BE TWO LAYERS OF NO. 4 DEFORMED BARS @ 6" C/C, TWO WAYS, ON INSIDE AND OUTSIDE OF WALL WITH 2" COVER.
4. BASE REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 6" C/C, TWO WAYS, WITH 2" COVER FROM TOP OF BASE.
5. FROM THE CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND FOR A MAXIMUM DEPTH OF 15'-0".

STANDARD TYPE E INLET DETAIL

NOT TO SCALE — 1 | 12 | 19

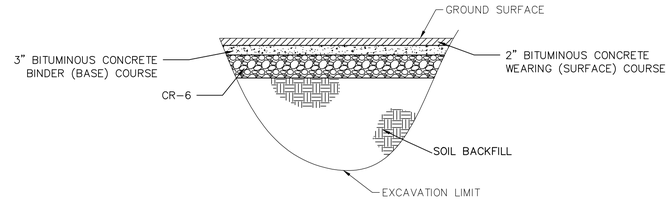


CONSTRUCTION SPECIFICATIONS

1. CR-6 WILL HAVE COMPRESSIVE STRENGTH OF 50 TO 100 PSI.
2. CR-6 WILL BE PLACED IN MAX 12-INCH LIFTS. THE NEXT LIFT WILL NOT BE PLACED UNTIL THE UNDERLYING LIFT IS STRONG ENOUGH TO HAVE A ONE FOOT VERTICAL FACE UNDER LOAD OF THE NEXT LIFT (I.E. APPROXIMATELY 2 PSI OR 288 PSF OF COMPRESSIVE STRENGTH).
3. BOTTOM OF THE EXCAVATION LIMIT NEAR THE SHEET PILE WILL BE 3 FEET HORIZONTAL OR SLOPING AWAY FROM THE SHEET PILE.
4. 36" PE PIPE WILL BE PLACED IN EXISTING HOLE IN THE BULKHEAD.

STORM DRAIN PIPE REPAIR DETAIL

NOT TO SCALE — 2 | 15 | 19

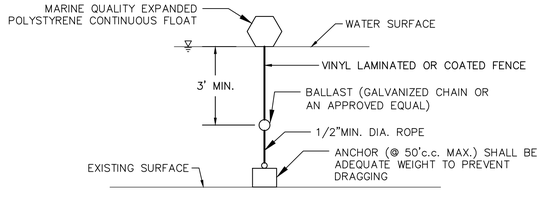


CONSTRUCTION SPECIFICATIONS

1. CR-6 WILL HAVE COMPRESSIVE STRENGTH OF 50 TO 100 PSI.

ASPHALT RESURFACING DETAIL

NOT TO SCALE — 3 | 11 | 19



CONSTRUCTION SPECIFICATIONS

1. BARRIERS SHOULD BE A BRIGHT COLOR (YELLOW OR "INTERNATIONAL" ORANGE ARE RECOMMENDED) THAT WILL ATTRACT THE ATTENTION OF NEARBY BOATERS
2. CONSTRUCTION FABRIC – THICKNESS, 45 MILS. WEIGHT 18 OZ. SQ YD. GRAB TENSILE STRENGTH, 300 LBS. UV INHIBITOR MUST BE INCLUDED.
3. SEAMS IN THE FABRIC SHALL BE EITHER VULCANIZED, WELDED, OR SEWN, AND SHALL DEVELOP THE FULL STRENGTH OF THE FABRIC.
4. FLOTATION DEVICES SHALL BE FLEXIBLE, BUOYANT UNITS, CONTAINED IN AN INDIVIDUAL FLOTATION SLEEVE OR COLLAR ATTACHED TO THE CURTAIN. BUOYANCY PROVIDED BY THE FLOTATION UNITS SHALL BE SUFFICIENT TO SUPPORT THE WEIGHT OF THE CURTAIN AND MAINTAIN A FREEBOARD OF AT LEAST 3 INCHES ABOVE THE WATER SURFACE.

TURBIDITY CURTAIN DETAIL

NOT TO SCALE — 4 | 12 | 19

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT

APPROVED FOR SEDIMENT CONTROL

DATE

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

STATE OF MARYLAND — SCOTT A. NESH — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
EROSION AND SEDIMENT CONTROL DETAILS
(SHEET 3 OF 3)

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	19 OF 20

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C-17

MARYLAND AVIATION ADMINISTRATION SEEDING SPECIFICATIONS

REFERENCES TO ITEM #S NOTED BELOW ARE FOUND IN MARYLAND AVIATION ADMINISTRATION'S MANUAL ENTITLED SPECIFICATIONS FOR PERFORMING LANDSCAPING ACTIVITIES FOR THE MARYLAND AVIATION ADMINISTRATION DATED JANUARY 2008.

ITEM 903 SEEDING

DESCRIPTION

903–1.1 GENERAL. This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item have been designed to reduce the attractiveness of airport grounds to wildlife. Only MAA–approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. All activities associated with seeding including soil preparation, seed application, fertilization, and maintenance shall also conform to these approved standards.

MATERIALS

903–2.1 SEED. All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland). Only MAA–approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All lawn and turf seed and mixtures shall be free from the following state–listed restricted noxious weeds:

corn cockle (agrostemma githago),
bentgrass (Agrostis spp.),*
redtop (Agrostis gigantea) *
wild onion (Allium canadense),
wild garlic (Allium vineale),
bindweed (Calstegia spp.),
dodder (Cuscuta spp.),
Bermuda grass (Cynodon dactylon),
orchardgrass (Dactylis glomerata),
tall fescue (Festuca arundinacea) *
meadow fescue (Festuca pratensis) *,
velvetgrass (Holcus lanatus),
annual bluegrass (Poa annua),
rough bluegrass (Poa trivialis),*
timothy (Phleum pratense), and
Johnson grass (Sorgum halepense).

* These species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

Restricted noxious–weed seed may not exceed 0.5 percent by weight of any seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited noxious weeds: balloonvine (Cardiospermum halicacabum), quackgrass (Elytrigia repens), sicklepod (Senna obtusifolia), sorghum (Sorghum spp.), Canada thistle (Cirsium arvense), plumeless thistle (Carduus spp.–includes musk thistle and curled thistle), and serrated tussock (Nassella trichotoma).

903.2.1.1 APPROVED SPECIES. The following table contains species that are approved by MAA for use in seed mixtures. Purity requirements and germination requirements are also provided.

APPROVED PLANT SPECIES
MMA SEED MIXTURES

	PURITY* NOT LESS THAN %	MINIMUM % GERMINATION**	PURE LIVE SEED FACTOR
CERTIFIED TURF–TYPE TALL FESCUE (Festua arundinacea)	98	90	1.1300
CERTIFIED KENTUCKY BLUE GRASS (poa pratensis)	90	80	1.3900
FOWL BLUEGRASS (Poa Palustris)	90	80	1.3900
HARD FESCUE (Festuca longifolia)	98	90	1.1300
CHEWING RED FESCUE (Festuca rubra commutata)	98	90	1.1300
ANNUAL RYEGRASS (Lolium multiflorum)	95	85	1.2400
PERENNIAL RYEGRASS (Lolium perenne)	90	80	1.3900
CREEPING BENTGRASS (Agrostis Stolonifera)	90	80	1.3900
SWITCHGRASS (Panicum Virgatum)	90	80	1.3900
LITTLE BLUESTEM (Andropogon scoparius)	62	94	1.7100

*THE PERCENTAGE WEIGHT OF PURE SEED PRESENT SHALL BE FREE OF ANY AGRICULTURE SEEDS, INERT MATTER, AND OTHER SEEDS DISTINGUISHABLE BY THEIR PERCENTAGE.

**THE PERCENTAGE OF GERMINATION SHALL BE ACTUAL SPROUTS AND SHALL NOT INCLUDE HARD SEEDS UNLESS SPECIFICALLY PERMITTED BY THE MAA ENGINEER.

903–2.1.2 PURITY. All seed shall be free of all state–designated noxious weeks listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

- name and address of laboratory,
- date of test,
- lot number,
- the results of tests as to name, percentages of purity and of germination,
- percentage of weed content for the seed furnished,
- and, in the case of a mixture, the proportions of each kind of seed.

Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentages of purity, germination rate and hard seed, and percentage of maximum weed seed content clearly marked. All seed containers shall be tagged with a MDA supervised mix program seed tag.

903–2.1.3 MIXTURES AND APPLICATION RATES. Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. seed mixtures shall meet criteria detailed in Paragraph 903–2.1.2. Seed mixtures have been formulated to minimize the attractiveness of areas to wildlife of common landscape scenarios. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application scenarios, and rates for permanent cool–season grasses are as follows:

a. Seed Mixture No. 1 – relatively flat areas (grade less than 4:1) subject to normal conditions and regular mowing (Application rate = 234 lbs PLS/acre)
b. Seed Mixture No. 2 – sloped areas (grade greater than 4:1) not subject to regular mowing (Application Rate = 115 lbs PLS/acre); and
c. Seed Mixture No. 3 – wetlands and their associated buffer zones (Application rate = 131 lbs PLS/acre).

Seed Mixture No. 1: Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

Seed		Rate of Application (lbs of PLS/acre)
85%	Certified Turf–Type Tall Fescue	192
10%	Certified Kentucky Bluegrass	28
5%	Perennial Ryegrass	14
Supplemental Seed		
	Annual Ryegrass	25

Seed Mixture No. 2: Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed		Rate of Application (lbs of PLS/acre)
75%	Hard Fescue	85
20%	Chewing Fescue	23
5%	Kentucky Bluegrass	7
Supplemental Seed		
	Redtop	3

Seed Mixture No. 3: Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

Seed		Rate of Application (lbs of PLS/acre)
60%	Creeping Bentgrass	83
30%	Fowl Bluegrass	34
10%	Switchgrass	14
Supplemental Seed		
	Redtop	3

903.2.1.4 SEEDING SEASON. Application of seed and seed mixtures shall occur within a specified seeding season unless otherwise approved by the MAA Engineer. No seed or seed mixtures are to be applied on frozen ground or when the temperature is at or below 35 degrees Farenheit (7.2 degrees Centigrade). Under these conditions, a layer of mulch should be applied in accordance with Item 905, Mulching, to stabilize the site, and permanent seeding should occur in the subsequent seeding season. Seed application may occur during the seeding season dates listed below. Seeding performed after October 20 should be a temporary cover of annual ryegrass and followed by overseeding of the appropriate seed mixture during the spring seeding season.

SEEDING SEASONS

PERMANENT COOL–SEASON GRASSES	MARCH 1 TO APRIL 20 AND AUGUST 1 TO OCTOBER 20, INCLUSIVE
TEMPORARY COVER OF ANNUAL RYE/REDTOP	MARCH 1 TO APRIL 30 AND AUGUST 1 TO NOVEMBER 30, INCLUSIVE
TEMPORARY COVER OF WARM–SEASON GRASSES (LITTLE BLUESTEM ONLY)	MAY 1 TO JULY 31, INCLUSIVE. RATE OF APPLICATION SHOULD BE 13.6 LBS. PLS PER ACRE

903–2.2 LIME. Lime shall consist of ground limestone and contain at least 85 percent total carbonates. Lime shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve and 50 percent will pass through a No. 100 mesh sieve. Dolomitic lime or a high magnesium lime shall contain at least 10 percent magnesium oxide. Lime shall be applied by approved methods detailed in Section 903–3.3 of this item. The rate of application will be based on results of soil tests.

903–2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizer (supplied separately or in mixtures) and meet the requirements of applicable state and federal laws (O–F–241) as well as standards of the Association of Official Agricultural Chemists. Nitrogen–Phosphorus–Potassium (N–P–K) concentrations shall be determined from analysis of soil samples. Methods of fertilizer application shall conform to standards described in Section 903–3.3 of this item. Fertilizer shall be furnished in standard containers that are clearly labeled with name, weight, and guaranteed analysis of the contents (percentage of total nitrogen, available phosphoric acid, and water–soluble potash). Mixed fertilizers shall not contain any hydrated lime or cyanamide compounds. Fertilizers failing to meet the specified analysis may be approved by the MAA Engineer, providing sufficient materials are applied to conform with the specified nutrients per unit of measure without additional cost to MAA.

The fertilizers may be supplied in the following forms:
a. A dry, free–flowing fertilizer suitable for application by a common fertilizer spreader;
b. A finely ground fertilizer soluble in water, suitable for application by power sprayers; or
c. A granular or pellet form suitable for application by blower equipment.

The rate of application will be based on results of soil tests performed by the University of Maryland Soil Testing Laboratory. By law, persons applying fertilizer to State–owned land shall follow the recommendations of the University of Maryland as set forth in the "Plant Nutrient Recommendations Based on Soil Tests for Turf Maintenance" and the "Plant Nutrient Recommendations Based on Soil Tests for Sod Production". Application of the fertilizer shall be in a manner that is consistent with the recommendations of the University of Maryland Cooperative Extension.

CONSTRUCTION METHODS AND EQUIPMENT

903–3.1 GENERAL. This section provides approved methods for the application of and includes standards for seedbed preparation, methods of application, and equipment to be used during the process. Lime and fertilizer shall be applied to seeded areas before the seed is spread. The mixture of seed will be determined for sites based on environmental conditions as described in Paragraph 903–2.1.3.

903–3.2 ADVANCE PREPARATION. Areas designated for seeding shall be properly prepared in advance of seed application. The area shall be tilled and graded prior to application of lime and fertilizer, and the surface area shall be cleared of any stones larger than 1 inch in diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass–covered areas. Damage caused by erosion or other forces that occur after the completion of grading shall be repaired prior to the application of fertilizer and lime. The Contractor will repair such damage, which may include filling gullies, smoothing irregularities, and repairing other incidental damage before beginning the application of fertilizer and ground limestone.

If an area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, all grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory condition by discing or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

An area to be seeded shall be considered a satisfactory seedbed (without requiring additional treatment) if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches; the top 3 inches of soil is loose, friable, and is reasonably free from large clods, rocks, large roots, or other undesirable matter; appropriate amounts of fertilizer and lime have been added; and, if it has been shaped to the required grade immediately prior to seeding. For slope areas steeper than 3:1 (three horizontal to one vertical), the subsoil shall be loose to a depth of 1 inch.

After completion of tilling and grading, lime and fertilizer shall be applied within 48 hours according to the specified rate (Paragraphs 903–2.2 and 2.3) and methods (Paragraphs 903–3.3.1 and 903–3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

903–3.3 METHODS OF APPLICATION. Lime, fertilizer, and seed mixes shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

903–3.3.1 DRY APPLICATION METHOD

a. Liming. If soil test results indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903–3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.
b. Fertilizing. Following advance preparations (and liming if necessary), fertilizershall be spread uniformly at the specified rate to provide no less than the minimum quantity stated in Paragraph 903–2.3.
c. Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1 inch for newly graded and disturbed areas.
d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnroller.

903–3.3.2 WET APPLICATION METHOD/HYDROSEEDING

A. GENERAL.The contractor may elect to apply seed and fertilizer as per paragraphs c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in paragraphs 903–2.1 through 903–2.3.

B. SPRAYING EQUIPMENT. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power–driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment shall also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pressure pump assemblage shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump passages and pipelines shall be capable of providing clearance for 5/8–inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick–acting, three–way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be supplied so that mixtures may be properly sprayed over a distance varying from 20 feet to 100 feet. One shall be a close–range ribbon nozzle, one a medium–range ribbon nozzle, and one a long–range jet nozzle. for ease of removal and cleaning, All nozzles shall be connected to the nozzle pipe by means of quick–release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

C. MIXTURES. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime should be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The contractor shall identify all sources of water to the MAA engineer at least two weeks prior to use. The engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The contractor shall not use any water from any source that is disapproved by the engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they were mixed or they shall be wasted and disposed of at a location acceptable to the engineer.

D. SPRAYING. Lime shall be sprayed upon previously prepared seedbeds on which the lime, if required, shall have been worked in already. The mixtures shall be applied using a high–pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to guard against misses and overlapped areas. Predetermined quantities of the mixture shall be used in accordance with specifications to cover specified sections of known areas. To checks the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or pans over the area at intervals and observe the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the MAA engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. however, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

903–3.4 MAINTENANCE OF SEEDED AREAS. The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work performed out of season, the contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

ITEM 904 SODDING

DESCRIPTION

904–1 This item provides standards for furnishing, hauling, and placing approved live sod on prepared areas as indicated on site plans. Sod will only be applied to landscape areas and shall be mowed frequently. All sodding activities shall conform to these specifications at the locations shown on site plans or as directed by the MAA Engineer.

MATERIALS

904–2.1 SOD. Sod furnished by the Contractor shall have a good cover of living or growing grass. This includes grass that is seasonally dormant during the cold or dry seasons and capable of renewing growth after the dormant period. All sod shall be obtained from areas in which the soil is reasonably fertile and contains a high percentage of loamy topsoil. Sod shall be cut or stripped from living, thickly matted turf relatively free of weeds or other undesirable foreign plants, large stones, roots, or other materials that might be detrimental to the development of the sod or to future maintenance. Grass sod shall be Maryland–certified or approved and shall comply with the Maryland Sod Law of the Annotated Code of Maryland (Agricultural Article Sections

9–101 through 9–110). Each load of sod shall bear a Maryland State Approved or Certified label at the time of delivery on the job. Sod shall be either: (1) Bluegrass sod containing not less than 80 percent Kentucky bluegrass (Poa pratensis) and not more than 20 percent Red Fescue (Festuca rubra); or (2) certified turf type–tall fescue (Festuca arundinacea) sod containing not less than 80 percent certified turf type–tall fescue (Festuca arundinacea) grass and not more than 20 percent Kentucky Bluegrass (Poa pratensis) and Red Fescue (Festuca rubra). Any vegetation more than 6 inches in height shall be mowed to a height of 3 inches or less before sod is lifted. Sod, including the soil containing the roots and the emergent plant growth, shall be cut uniformly to a thickness not less than that specified in Section 904–3.4.

904–2.2 LIME. Lime shall conform to standards described in Section 903, 'Seeding.'

904–2.3 FERTILIZER. Fertilizers and application methods shall conform to the standards previously described in Section 903, 'Seeding.'

904–2.4 WATER. All water shall conform to the standards previously described in Paragraph 902–2.4, 'Water.'

904–2.5 SOILS FOR REPAIR. All soils for repairs shall conform to the standards previously described in Paragraph 901–2.3, 'Soils for Repair.'

CONSTRUCTION REQUIREMENTS

904–3.1 GENERAL. Areas to be sodded shall be clearly indicated by site plans. Areas requiring special ground surface preparation, such as tilling, and those areas in a satisfactory condition that are to remain undisturbed shall also be shown on the plans.

Suitable equipment necessary for proper preparation of the ground surface and for the handling and placing of all required materials shall be on hand, in good condition, and shall be approved by the MAA Engineer before sodding operations begin. The Contractor shall demonstrate to the MAA Engineer, before starting the various operations, that the application of required materials, such as fertilizer and limestone, will be made at the specified rates.

904–3.2 ADVANCE PREPARATION. If the area to be sodded is sparsely vegetated, weedy, barren and unworked, or packed and hard, all existing herbaceous vegetation shall be removed. The soil shall then be scarified or otherwise loosened to a depth of at least 5 inches (125 mm). Clods shall be pulverized, and the top 3 inches (75 mm) of soil shall be worked into a satisfactory bed by discing or use of cultipackers, rollers, drags, harrows, or other equipment approved by the MAA Engineer. The area shall then be properly graded as indicated by site plans.

After grading of areas is complete and prior to the application of fertilizer and limestone, areas to be sodded shall be raked or otherwise cleared of stones larger than 1 inch in diameter, sticks, stumps, and other debris which might interfere with sodding, growth of grasses, or subsequent maintenance of grass–covered areas. If any damage by erosion or other causes has occurred after grading of areas and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be sodded will be considered a satisfactory seedbed without requiring additional treatment if it recently has been thoroughly loosened and worked to a depth of not less than 5 inches as a result of grading operations and, if immediately prior to sodding, the top 3 inches of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and is shaped to the required grade. For slope areas steeper than 3:1 (three horizontal to one vertical) the subsoil shall be loosened to a depth of 1 inch. Lime and fertilizer shall be applied within 48 hours after tilling as described in 903–3.3 and 3.4. The sod shall be applied immediately after the lime and fertilizer have been worked into the soil.

904–3.3 APPLICATION OF FERTILIZER AND LIME. Following ground surface preparation, fertilizer shall be uniformly spread as described in Section 903–3.3 at a rate that will provide at least the minimum quantity of fertilizer required. If the use of ground limestone is specified, it shall be spread as described in Section 903–3.3, 'Methods of Application'; at a rate that will provide at least the minimum quantity of lime required. These materials shall be incorporated into the soil to a depth of at least 2 inches by discing, raking, or other methods approved by the MAA Engineer. Any stones larger than 1 inch in diameter, large clods, roots, and other litter brought to the surface by this operation shall be removed.

904–3.4 OBTAINING AND DELIVERING SOD. The sod shall be well rooted, grown in the State of Maryland, and field grown for a minimum of 12 months. After inspection and approval of the sod by the MAA Engineer, the sod shall be cut with approved sod cutters to such a thickness that after placement on the prepared bed, but before compaction, it shall have a uniform attached soil thickness of at least 0.75 inch. Sod sections or strips shall be cut in uniform widths of at least 14 inches and in lengths of at least 18 inches, but not to lengths that might inhibit placement without breaking, tearing, or loss of soil. Where strips are required, the sod shall be rolled or folded undamaged, with the grass facing inward. The Contractor may be required to mow high grass before cutting sod.

Sod shall be transplanted within 24 hours from the time of harvest unless circumstances beyond the Contractor's control make storage necessary. In such cases, sod shall be stacked, kept moist, protected from exposure to the air and sun, and shall be kept from freezing. Sod shall only be harvested and mowed when soil moisture conditions are such that favorable results can be expected. Where soil is too dry, permission to cut sod may be granted only after it has been sufficiently watered to moisten the soil to the depth at which the sod will be cut.

904–3.5 PLACING SOD. Sodding shall only be performed during seasons when satisfactory results can be expected. Frozen sod shall not be used and sod shall not be placed upon frozen soil. Sod may be transplanted during periods of drought with the approval of the MAA Engineer, provided the sod bed is watered to moisten the soil to a depth of at least 4 inches immediately prior to laying the sod.

The sod shall be moist and shall be placed on a bed, prepared according to Paragraphs 904–3.2 'Advance Preparation', and 904–3.3, 'Application of Fertilizer and Lime'by hand. Pitchforks shall not be used to handle sod, and dumping from vehicles shall not be permitted. The sod shall be placed carefully by hand, edge to edge and with staggered joints, in rows at right angles to the slopes, starting at the base of the area to be sodded and working upward. The sod shall immediately be pressed firmly into contact with the sod bed by tamping or rolling with approved equipment to provide a true and even surface, and ensure knitting without displacement of the sod or deformation of the surfaces of sodded areas. Where the sod has been displaced during sodding operations, the workmen replacing it shall work from ladders or treaded planks to prevent further displacement. Where the grades are such that the flow of water will be from paved surfaces across sodded areas, the surface of the soil in the sod after compaction shall be set approximately 1.5 inches below the pavement edge. Where the flow will be over the sodded areas and onto the paved surfaces around manholes and inlets, the surface of the soil in the sod after compaction shall be placed flush with pavement edges.

On slopes steeper than 1:2.5 and in V–shaped or flat–bottom ditches or gutters, the sod shall be secured with wooden pegs at least 18 inches long and a cross–sectional area of at least 0.75–square inch, or by other methods of securing sod approved by the MAA Engineer. The pegs shall be driven flush with the surface of the sod. The pegs shall be of sufficient number and at adequate spacing to secure sod from displacement. The use of sod staples or other means of securing the sod from displacement may be approved by the MAA Engineer provided satisfactory results are expected.

904–3.6 WATERING. Adequate water and watering equipment shall be on hand before sodding begins, and sod shall be kept moist until it has become established and its continued growth assured. In all cases, watering shall be done in a manner that will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface.

904–3.7 ESTABLISHING TURF.

904–3.7.1 GENERAL. The Contractor shall provide general care for the sodded areas as soon as the sod has been laid and shall continue to provide such care until final inspection and acceptance of the work.

904–3.7.2 PROTECTION. All sodded areas shall be protected against traffic or other use by warning signs and barricades approved by the MAA Engineer.

904–3.7.3 MOWING. The Contractor shall mow the sodded areas with approved mowing equipment, depending upon climatic and growth conditions and the needs for mowing of specific areas. in the event that weeds or other undesirable vegetation establishes to such an extent that, either cut or uncut, they threaten to smother the sodded species, the weeds shall be mowed and the clippings raked and removed from the area. Spot applications of an appropriate herbicide by a licensed applicator shall be approved by the MAA Engineer to remove invasive species. The appropriate herbicide shall be determined on a case–by–case basis, depending on the location and type of weed.

904–3.7.4 REPAIR. When the surface has become gullied or otherwise damaged during the period covered by this contract, the affected areas shall be repaired to re–establish the grade and the condition of the soil and shall then be re–sodded as specified in Paragraph 904–3.5, 'Placing Sod', at the Contractor's expense

ITEM 905 MULCHING

DESCRIPTION

905–1.1 GENERAL. This item provides the Contractor with MAA–approved specifications for mulch and the application of mulch including distribution of mulch and securing of mulched areas. Areas to be mulched will be clearly shown on site plans or otherwise designated by the MAA Engineer.

MATERIALS

905–2.1 TYPES OF MULCH. Acceptable mulch shall be composed of the materials listed below or composed of any locally available materials that are similar to those specified and approved by the MAA Engineer. Low–grade, shalely, soiled, partially rotted hay, straw, or other materials unfit for animal consumption will not be acceptable for use as mulch. Straw or other material that is fresh, excessively brittle, or is in such an advanced stage of decomposition as to smother or retard the planted grass, is not acceptable. Clean, weed–free straw may be used. Mulch materials containing matured seed with the potential to establish and be detrimental to the project or the surrounding area is not acceptable.

a. Shredded Hardwood Bark. Shredded hardwood bark shall consist of hardwood tree bark that has been milled and screened to ensure a maximum 4–inch (100–mm) particle size, provide a uniform texture, and be free from sawdust, toxic substances, and other foreign materials.

b. Wood Chips. Wood chips shall be produced by a chipping machine to a size specified by the MAA Engineer. Chips may not have been subjected to any conditions that would shorten their useful life or cause them to lose any of their value as mulch. Wood chips shall be free from bark, leaves, twigs, wood shavings, sawdust, toxic substances, and other foreign material.

c. Wood Cellulose Fiber. Wood cellulose fiber shall consist of a processed wood product with uniform fiber characteristics. The fiber shall be capable of remaining in a uniform suspension under agitation in water and blending with seed, fertilizer, and other additives to form a homogeneous slurry. The fiber shall perform satisfactorily in hydraulic seeding equipment without clogging or damaging the system. The slurry shall contain a green dye to provide easy visual inspection for uniformity of application.

Certification showing that the fiber material conforms to the following specifications shall be provided by the manufacturer:

Wood Cellulose Fiber Requirements

Particle Length, in. (mm)	Approximately 1/2 (13)
Particle Thickness, in. (mm)	Approximately 1/16 (1.5)
Net dry Weight Content	Minimum as stated on bag
TAPPI* T 509, pH	4.0 to 8.5
Ash Content, TAPPI* Standard T 413, % max	7.0
Water Holding Capacity, % min	90

*Technical Association of Pulp and Paper Industry

The material shall be delivered in packages of uniform net weight of 75 lbs (34 kg) or less and shall be clearly labeled with the name of the manufacturer, net weight, and a supplemental statement of the net weight content.

905–2.2 INSPECTION. Within five days after acceptance of the bid, the Contractor shall provide representative samples of mulch material to be used to the MAA Engineer and identify the source of the material and quantities of mulch materials available. The samples provided may be used as standards with the approval of the MAA Engineer and any materials brought on the site that do not meet these standards may be rejected.

CONSTRUCTION REQUIREMENTS

905–3.1 ADVANCE PREPARATION. Before spreading mulch, all large clods, stumps, stones, brush, roots, and other foreign material shall be removed from the area to be mulched. Mulch shall be applied immediately after seeding unless otherwise specified. The application and spreading of mulch may be by hand methods, blower, or other mechanical methods, provided a uniform covering is obtained.

905–3.2 APPLICATION OF MULCH. The Contractor shall evenly apply mulch materials to areas indicated by site plans or otherwise designated by the MAA Engineer. Cellulose–fiber or wood–pulp mulch shall be applied at the rate of 1,500 pounds (dry weight) per acre. Mulch may be blown on the slopes and use of cutters in the equipment for this purpose will be permitted to the extent that at least 95 percent of the mulch in place on the slope is 6 inches or more in length. When mulch applied by the blowing methods is cut, the loose depth in place shall be 1 to 2 inches. Cellulose fiber or wood–pulp mulch shall be applied as an aqueous mixture by spraying at the rate of 1,500 pounds (dry weight) per acre using spraying equipment approved by the MAA Engineer.

905–3.3 SECURING MULCH. Mulch shall be held in place by light discing, a thin coating of topsoil, pins, stakes, wire mesh, or other methods approved by the MAA Engineer. If the 'peg and string'method is used, the mulch shall be secured with stakes or wire pins driven into the ground on 5–foot centers or less. Binder twine shall be strung between adjacent stakes in straight lines and crossed diagonally over the mulch. The stakes shall be firmly driven nearly flush to the ground to draw the twine tightly onto the mulch.

905–3.4 MAINTENANCE OF MULCHED AREAS. The Contractor shall care for mulched areas until final acceptance of the project. Care required may consist of providing protection against traffic or other disturbances by placement of warning signs and/or barricades before or immediately after mulching has been completed.

The Contractor may be required to repair or replace any mulching that is defective or becomes damaged before the project is finished and deemed satisfactory by the MAA Engineer. When, in the judgment of the MAA Engineer, defects or damage result from poor workmanship or failure to meet the requirements of the specifications, the cost of the necessary repairs or replacement will be borne by the Contractor. However, once the Contractor has completed the mulching of an area in accordance with the provisions of the specifications and to the satisfaction of the Engineer, no additional work at his expense will be required. Any subsequent repairs and/or replacements deemed necessary by the Engineer may be made by the Contractor and will be paid for as additional or extra work.

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT
APPROVED FOR SEDIMENT CONTROL

DATE

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GERMANTOWN, MD 20874
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STATE OF MARYLAND — SCOTT A. NEWLIN — No. 29015 — PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX
SOIL REMEDIAL ACTION
SEED SPECIFICATIONS

DATE:	03/25/2015
PROJECT NO.:	112IC05956
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	20 OF 20

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APPENDIX B—RTDS SPECIFICATION SHEETS



HEALTH AND SAFETY

Exposure Monitoring



Features and Benefits

- Easy to program, easy to operate
- New graphical user interface with color touch-screen
- Perform in-line gravimetric analysis for custom reference calibrations
- Automatic zeroing (with optional zero module) minimizes the effect of zero drift
- Measure aerosol concentrations corresponding to PM_1, $PM_{2.5}$, PM_{10}, or Respirable size fractions

DustTrak™ II Aerosol Monitor

Models 8530, 8531, and 8532

Desktop or Handheld Units for Any Environment, Any Application

The new DustTrak II Aerosol Monitors are battery-operated, data-logging, light-scattering laser photometers that give you real-time aerosol mass readings. They use a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance. Suitable for clean office settings as well as harsh industrial workplaces, construction and environmental sites and other outdoor applications. DustTrak II monitors measure aerosol contaminants such as dust, smoke, fumes and mists.

Applications

- Industrial/occupational hygiene surveys
- Indoor air quality investigations
- Outdoor environmental monitoring
- Baseline trending and screening
- Point source monitoring
- Engineering control evaluations
- Engineering studies
- Remote monitoring
- Process monitoring
- Emissions monitoring
- Aerosol research studies

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Easy to Program and Operate

The new graphical user interface with color touch-screen puts everything at your fingertips. The easy-to-read display shows real-time mass concentration and graphical data as well as other statistical information along with instrument pump, laser and flow status, and much more. Perform quick walk-through surveys or program the instrument's advanced logging modes for long-term sampling investigations. Program start times, total sampling times, logging intervals, alarm setpoints and many other parameters. You can even set up the instrument for continuous unattended operation.

Desktop Models: Ideal for Long-Term Surveys and Remote Monitoring Applications

Manual and programmable data logging functions also make DustTrak II desktop monitors ideal for unattended applications. They come with USB (device and host), Ethernet, and analog and alarm outputs allowing remote access to data. User adjustable alarm setpoints for instantaneous or 15-minute short-term excursion limit (STEL) are available on desktop models. The alarm output with user-defined setpoint alerts you when upset or changing conditions occur.

All DustTrak II desktop monitors have three unique features:

- Gravimetric sampling capability using a 37-mm filter cassette which can be inserted in-line with the aerosol stream allowing you to perform an integral gravimetric analysis for custom reference calibrations.
- They can be zeroed automatically using the external zeroing module. This optional accessory is used when sampling over extended periods of time. By zeroing the monitor during sampling, the effect of zero drift is minimized.
- STEL alarm feature for tracking 15-minute average mass concentrations when alarm setpoint has been reached for applications like monitoring fugitive emissions at hazardous waste sites.

Handheld Models: Perfect for Walk-Through Surveys and Single-Point Data Collection Applications

DustTrak II handheld models are lightweight and portable. They're perfect for industrial hygiene surveys, point source location monitoring, indoor air quality investigations, engineering control evaluations/validation, and for baseline trending and screening. Like desktop models, they have manual and programmable data logging functions. In addition, they have single-point data logging capability. Single-point data collection is used for walk-through industrial hygiene surveys and indoor air quality investigations.

New Software Makes Monitoring Easier than Ever

TrakPro™ Data Analysis Software allows you to set up and program directly from a PC. A new feature is the ability for remote programming and data acquisition from your PC via wireless (922 MHz or 2.4 GHz) communications or over an Ethernet network. As always, you can print graphs, raw data tables, and statistical and comprehensive reports for recordkeeping purposes.



DustTrak II Aerosol Monitor Features

All Models

- Li-Ion rechargeable batteries
- Internal and external battery charging capabilities
- Outlet port for isokinetic sampling applications
- User serviceable sheath flow and pump filters
- Logged test pause and restart feature
- Logged test programming
  - Color touch screen—either manual mode or program mode
  - TrakPro™ Data Analysis Software via a PC
- User adjustable custom calibration settings
- Instantaneous alarm settings with visual and audible warnings
- Real-time graph display
- View statistical information during and after sampling
- On-screen instrument status indicators: FLOW, LASER and FILTER
- Filter service indicator for user preventative maintenance

All Desktop Models

- Hot swappable batteries
- Gravimetric reference sample capability
- Long life 10,000-hour internal pump
- TrakPro Data Analysis Software
- Auto zeroing module (optional accessory)
- STEL alarm setpoint



All Handheld Models

- Long life 2,500-hour internal pump
- Single-point data collection for walk through surveys
- TrakPro Data Analysis Software



Battery Performance

Models 8530/8531 (typical) 6600 mAH Li-Ion Battery Pack (P/N 801680)	1 Battery	2 Batteries
Battery Runtime (hours)	up to 6	up to 12
Charge Time * (hours) in DustTrak	4	8
Charge Time* (hours) in external battery charger (P/N 801685)	4	8

Model 8532 (typical) 3600 mAH Li-Ion Battery Pack (P/N 801681)	Battery
Battery Runtime (hours)	up to 6
Charge Time * (hours) in DustTrak	4
Charge Time* (hours) in external battery charger (P/N 801686)	4

*of a fully depleted battery





Specifications

Models 8530, 8531, and 8532
DustTrak™ II Aerosol Monitor

Sensor Type
90° light scattering

Particle Size Range
0.1 to 10 µm

Aerosol Concentration Range

8530 Desktop	0.001 to 150 mg/m^3
8531 Desktop High Conc.	0.001 to 400 mg/m^3
8532 Handheld	0.001 to 150 mg/m^3

Resolution
±0.1% of reading or 0.001 mg/m^3, whichever is greater

Zero Stability
±0.002 mg/m^3 per 24 hours at 10 sec time constant

Flow Rate
3.0 L/min set at factory, 1.40 to 3.0 L/min, user adjustable

Flow Accuracy
±5% of factory set point, internal flow controlled

Temperature Coefficient
+0.001 mg/m^3 per °C

Operational Temp
32 to 120°F (0 to 50°C)

Storage Temp
-4 to 140°F (-20 to 60°C)

Operational Humidity
0 to 95% RH, non-condensing

Time Constant
User adjustable, 1 to 60 seconds

Data Logging
5 MB of on-board memory (>60,000 data points)
45 days at 1 minute logging interval

Log Interval
User adjustable, 1 second to 1 hour

Physical Size (HWD)

Handheld	4.9 x 4.8 x 12.5 in. (12.5 x 12.1 x 31.6 cm)
Desktop	5.3 x 8.5 x 8.8 in. (13.5 x 21.6 x 22.4 cm)

Weight

Handheld	2.9 lb (1.3 kg), 3.3 lb (1.5 kg) with battery
Desktop	3.5 lb (1.6 kg), 4.5 lb (2.0 kg)–1 battery, 5.5 lb (2.5 kg)–2 batteries

Communications

8530/31	USB (host and device) and Ethernet. Stored data accessible using flash memory drive
8532	USB (Hose and device). Stored data accessible using flash memory drive

Power–AC
Switching AC power adapter with universal line cord included, 115–240 VAC

Analog Out

8530/31	User selectable output, 0 to 5 V or 2 to 20 mA User selectable scaling range

Alarm Out

8530/31	Relay or audible buzzer Relay Non-latching MOSFET switch User selectable set point –5% deadband Connector 4-pin, Mini-DIN connectors
8532	Audible buzzer

Screen

8530/31	5.7 in. VGA color touchscreen
8532	3.5 in. VGA color touchscreen

Gravimetric Sampling

8530/31	Removable 37 mm cartridge (user supplied)

CE Rating

Immunity	EN61236-1:2006
Emissions	EN61236-1:2006

Specifications are subject to change without notice. TSI, the TSI logo, DustTrak, and TrakPro are trademarks of TSI Incorporated. Microsoft and Windows are trademarks of Microsoft Corporation.

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SidePak™ AM510 Personal Aerosol Monitor



The SidePak AM510 Personal Aerosol Monitor for industrial hygiene and safety professionals displays and data logs aerosol concentration in real time. The rugged, belt-mountable laser photometer is compact and quiet, minimizing interference and worker discomfort. The built-in sampling pump lets you attach a wide variety of size-selective aerosol inlet conditioners for breathing zone or area measurements with a respirable cyclone or one of the three integrated impactors.

The SidePak monitor incorporates TSI's Smart Battery Management System. This system utilizes a built-in "gas gauge" in the battery packs to monitor battery condition and provide precise run time information.

The SidePak monitor's easy-to-read display shows your data as both real-time aerosol mass-concentration and 8-hour time-weighted average (TWA). The monitor's intrinsic safety rating makes it ideal for hazardous/explosive environments. With its convenient data logging and long battery life, the SidePak is also ideal for extended sampling. The easy-to-use TrakPro™ Data Analysis Software lets you create effective graphs and reports.

User Friendly

- Small, lightweight and quiet to maximize worker acceptance
- Rugged design with secure belt clip
- Easy-to-understand user interface with only four keys
- Lockable keypad prevents tampering while sampling
- User-adjustable sample flow rate
- Define, label and store multiple calibration constants
- Easy-to-read LCD display
- Convenient, threaded tripod socket accommodates area sampling

Advanced Features

- Smart Battery Management System provides precise run time information, maximizes battery capacity and speeds charging
- Integrated pump allows use of size-selective aerosol inlet conditioners
- Built-in impactors let you choose "none," 1.0, 2.5 or 10-micron cut off
- Display shows real-time concentrations (mg/m^3) and "on-the-fly" TWA as you data log
- Display statistics: max, min and average readings, elapsed time and 8-hour TWA

Quick and Easy Reports

- Convenient preprogramming for occupational exposure sampling
- Data log for long periods and store multiple tests
- Analyze data, print graphs and create reports with TrakPro software
- USB port lets you conveniently connect to your computer

Power to Spare

- Long-lasting NiMH rechargeable battery packs eliminate "memory" issues
- Choice of rechargeable NiMH smart battery packs or AA-cell pack

TSI.

Specifications

SidePak AM510 Personal Aerosol Monitor

Sensitivity

Sensor type	90° light scattering, 670 nm laser diode
Aerosol concentration range	0.001 to 20 mg/m³ (calibrated to respirable fraction of ISO 12103-1, A1 test dust)
Particle size range	0.1 to 10 micrometer (µm)
Minimum resolution	0.001 mg/m³
Zero stability	±0.001 mg/m³ over 24 hours using 10-second time-constant
Temperature coefficient	Approximately +0.0005 mg/m³ per °C (for variations from temperature at which instrument was last zeroed)

Flow Rate

Range	User-adjustable, 0.7 to 1.8 liters/min (lpm)

Temperature Range

Operating range	0 to 50°C (32 to 120°F)
Storage range	-20 to 60°C (-4 to 140°F)

Time Constant (LCD display)

Range	User-adjustable, 1 to 60 seconds

Data Logging

Data points	Approx. 31,000 (21 days logging once per minute)
Logging interval	User-adjustable, 1 second to 1 hour

User-Select Calibration Factors

Factory setting	1.0 (non-adjustable)
User-defined settings	3, with user-defined labels
Range	0.1 to 10.0, user-adjustable

Physical

External Dimensions	106 mm × 92 mm × 70 mm (4.2 in. × 3.7 in. × 2.8 in.) with 801724 battery 130 mm × 92 mm × 70 mm (5.1 in. × 3.7 in. × 2.8 in.) with 801722 or 801708 battery
Weight	0.46 kg (16 oz) with 801724 battery 0.54 kg (19 oz) with 801722 battery 0.54 kg (19 oz) with 801708 battery
Display	2 line × 12 character LCD
Tripod socket	1/4–20 female thread

Power Supply/Charger (P/N 2613210)

Input voltage range	100 to 240 VAC, 50 to 60 Hz
Output voltage	9 VDC @ 1.0 A
Battery charge time	6.5 hours

Specifications are subject to change without notice.
Windows is a registered trademark of Microsoft Corporation.

Maintenance

Factory clean/calibrate	Recommended annually
User zero calibration	Before each use
User flow calibration	As needed

Battery Information

Battery Option	Charge Time*	Intrinsically Safe
1650 mAH NiMH Pack (P/N 801724)	3.5 Hours	Yes**
2700 mAH NiMH Pack (P/N 801722)	5.5 Hours	Yes**
6-Cell AA-size Pack (P/N 801708)	NA	No

* Of a fully depleted battery
** All dust plugs and gaskets must be installed.

Typical Battery Life

Battery Pack	Cell Type	Hours @ 0.7 lpm	Hours @ 1.7 lpm
1650 mAH NiMH Pack (P/N 801724)	NiMH (4.8 V, 1650 mAH)	11.5	9.2
2700 mAH NiMH Pack (P/N 801722)	NiMH (4.8 V, 2700 mAH)	19.8	15.6
6-Cell AA-size Pack	AA Alkaline Cells	29.6	22.5
(P/N 801708, with six user-supplied AA cells)	AA NiMH Cells (1600 mAH per cell. Cells cannot be charged while inside AA Pack)	8.8	6.7

Communications Interface

Type	USB 1.1
Connector, instrument	USB Mini-B (socket)

Minimum Computer Requirements for TrakPro Software

Communications port	Universal Serial Bus (USB) v1.1 or higher
Operating system	Microsoft Windows® 98, Me, 2000, XP (USB not supported in Windows 95 or NT)

Approvals

Intrinsic Safety Rating Information	TSI Battery Pack P/Ns: 801722 or 801724 INTRINSICALLY SAFE CSA Exia Class I Groups A, B, C, D T2A with 801724 T2C with 801722 File: 200507 TSI Battery Pack P/N: 801708 NOT INTRINSICALLY SAFE
CE Immunity	EN61326-1:1997 + A11998 Clause 6
CE Emissions	EN61326:1997 + Amendment A1:1998

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APPENDIX C—NIOSH ANALYTICAL AIR SAMPLING METHODOLOGY

POLYNUCLEAR AROMATIC HYDROCARBONS by HPLC 5506

Formulae: Table 1 MW: Table 1 CAS: Table 2 RTECS: Table 2

METHOD: 5506, Issue 3 **EVALUATION:** PARTIAL **Issue 1:** 15 May 1985
Issue 3: 15 January 1998

OSHA: Table 3
NIOSH: Table 3
ACGIH: Table 3

PROPERTIES: Table 1

Compounds

acenaphthene	benzo[ghi]perylene	fluorene
acenaphthylene	benzo[a]pyrene	indeno[1,2,3-cd]pyrene
anthracene	benzo[e]pyrene	naphthalene
benz[a]anthracene	chrysene	phenanthrene
benzo[b]fluoranthene	dibenz[a,h]anthracene	pyrene
benzo[k]fluoranthene	fluoranthene	

NAMES & SYNONYMS: Polycyclic aromatic hydrocarbons, PAHs; also see Table 2.

SAMPLING

SAMPLER: FILTER + SORBENT TUBE (37-mm, 2-µm, PTFE + washed XAD-2, 100 mg/50 mg)

FLOW RATE: 2 L/min

VOL-MIN: 200 L
-MAX: 1000 L

SHIPMENT: transfer filters to culture tubes; wrap sorbent and culture tubes in Al foil; ship @ 0 °C

SAMPLE STABILITY: unknown; protect from heat and UV light

FIELD BLANKS: 3 to 10 field blanks per set
MEDIA BLANKS: 6 to 10 media blanks per set

ACCURACY

RANGE STUDIED: not determined

BIAS: not determined

OVERALL PRECISION ($\hat{S}_{rt}$): not determined

ACCURACY: not determined

MEASUREMENT

TECHNIQUE: HPLC, FLUORESCENCE/UV DETECTION

ANALYTE: compounds listed above

EXTRACTION: 5 mL acetonitrile; ultrasonic bath, 30 to 60 minutes

INJECTION VOLUME: 10 to 50 µL

MOBILE PHASE: acetonitrile/water gradient @ ambient temperature, 1 mL/min

COLUMN: 250 x 4.6-mm, reversed-phase, 5-µm C_{18}

DETECTOR: UV @ 254 nm; fluorescence @ 340 nm (excitation), 425 nm (emission)

CALIBRATION: standards in acetonitrile

RANGE: see EVALUATION OF METHOD

ESTIMATED LOD: see EVALUATION OF METHOD

PRECISION ($\hat{S}_r$): see EVALUATION OF METHOD

APPLICABILITY: This method is applicable to samples that can be extracted with acetonitrile. This method is not applicable to samples that require a different extraction solvent or contain large amounts of highly adsorptive particulate matter, e.g., fly ash or diesel soot; also, this method is not applicable to asphalt fume samples.

INTERFERENCES: Any compound that elutes at the same HPLC retention time may interfere. Heat, ozone, NO_2, or UV light may cause sample degradation.

OTHER METHODS: This revises P&CAM 206 and 251 [1]. Method 5515 uses the same sampling technique, with gas chromatographic measurement [2]. Method 5800 uses the same sampling technique, and a flow-injection method to determine total polycyclic aromatic compounds at two different sets of fluorescent wavelengths [3].

REAGENTS:

1. Water, distilled, deionized, degassed.
2. Acetonitrile, HPLC grade, degassed.
3. PAH test mixture,* a liquid standard containing the PAHs except benzo[e]pyrene (EPA 610 Polynuclear Aromatic Hydrocarbons,Supelco, Cat. No. 4-8743; or equivalent).
4. Benzo[e]pyrene,* solid (Supelco, Cat. No. 44-2475; or equivalent).

* See SPECIAL PRECAUTIONS

EQUIPMENT:

1. Sampler:
   a. Filter. 37-mm, 2-µm pore size, PTFE membrane filter laminated to PTFE, (Zefluor, Pall Gelman Sciences, Cat. No. P5PJ037;SKC Inc., Cat. No. 225-17-07; or equivalent filter), cellulose spacer ring, 37-mm OD, 32-mm ID, (SKC Inc., Cat. No. 225-23; or equivalent) in a 37-mm cassette filter holder.
      NOTE: If sampling is to be done in bright sunlight, use opaque or foil-wrapped cassettes to prevent sample degradation.
   b. Sorbent tube, washed XAD-2 resin (front = 100 mg; back = 50 mg) (ORBO 43, Supelco, Cat. No. 2-0258; or equivalent), connected to filter with minimum length of PVC tubing. Plastic caps are required after sampling.
      NOTE: If pressure drop is excessive or pump fails, use a larger diameter sorbent tube with XAD-2 resin (ORBO 42 Large, Supelco, Cat. No. 2-0264U; or equivalent).
2. Personal sampling pump capable of operating for 8 h at 2 L/min, with flexible connecting tubing.
3. Aluminum foil.
4. Refrigerant, bagged.
5. Culture tubes, PTFE-lined screw cap, 13-mm x 100-mm.
6. Forceps.
7. Syringe filters, 0.45-µm, 25-mm, PTFE (Acrodisc-CR, Pall Gelman Sciences, Cat. No. 4219; or equivalent).
8. Pipet, 5-mL.
9. Syringe or micropipets, 1- to 100-µL.
10. Ultrasonic bath.
11. HPLC, with gradient capability, fluorescence (excitation @ 340 nm, emission @ 425 nm) and UV (254 nm) detectors in series, electronic integrator, and a 250 x 4.6-mm C_{18} column (Vydac 201TP, The Separations Group, Hesperia, CA, Cat. No. 201TP54; or equivalent).
12. Volumetric flasks, 10- and 100-mL.
13. Recommendation: lighting in laboratory should be incandescent or UV-shielded fluorescent.

SPECIAL PRECAUTIONS: Treat all polynuclear aromatic hydrocarbons as carcinogens. Samples and unused standards are considered toxic waste. Dispose of in an appropriate manner. Counter tops and equipment should be checked regularly with a "black light" for fluorescence as an indicator of contamination by PAHs.

SAMPLING:

1. Calibrate each personal sampling pump with a representative sampler in line.
2. Take personal samples at 2 L/min for a total sample size of 200 to 1000 L.
3. Immediately after sampling, transfer the filter carefully with forceps to a culture tube. Hold filter at edge to avoid disturbing the collected sample. Cap the tube and wrap in aluminum foil.
   NOTE: This step is necessary to avoid loss of analytes by sublimation.
4. Cap the sorbent tube and wrap in aluminum foil.
5. Ship to laboratory in insulated container with bagged refrigerant.

SAMPLE PREPARATION:

NOTE: UV light may degrade PAHs; therefore, recommend using yellow, UV-absorbing shields for fluorescent lights or use incandescent lighting.

6. Refrigerate samples upon receipt at laboratory.
7. Extract PAH from filters.
   a. Add 5.0 mL of acetonitrile to each culture tube containing a filter. Similarly, add 5.0 mL of acetonitrile to each culture tube containing the media and reagent blanks. Cap the tubes.
   b. Place capped tubes in an ultrasonic bath for 30 to 60 min.
8. Desorb PAH from sorbent.
   a. Score each sorbent tube with a file in front of the front (larger) sorbent section. Break tube at score line.
   b. Transfer front glass wool plug and front sorbent section to a culture tube. Transfer back sorbent section, and the middle glass wool plug to a second culture tube.
   c. Add 5.0 mL acetonitrile to each culture tube. Cap the tubes.
   d. Place capped tubes in an ultrasonic bath for 30 to 60 min.
9. Filter all sample extracts through an 0.45-µm syringe filter.

CALIBRATION AND QUALITY CONTROL:

10. Calibrate daily with at least six working standards.
    NOTE: If a benzo[e]pyrene standard is needed, weigh desired amount and add to a known volume of the PAH test mixture.
    a. Dilute aliquots of the PAH test mixture (containing benzo[e]pyrene if needed) with acetonitrile in 10-mL volumetric flasks. The concentration range should cover most of the PAH concentrations in the samples.
    b. During analysis, intersperse working standards with samples and blanks.
    c. Prepare calibration graphs (peak area vs. µg of each PAH per sample).
11. Recovery and desorption efficiency.
    a. Determine recovery (R) from filters and desorption efficiency (DE) from sorbent tubes at least once for each lot of filters and sorbent tubes used in the range of interest.
       (1) Filters. Using a microliter syringe or a micropipette, spike four filters at each of five concentration levels with a mixture of the analytes. Allow the filters to dry in the dark overnight. Analyze the filters (steps 7, 9, and 13 through 15). Prepare graphs of R vs. amounts found.
       (2) Sorbent tubes. Transfer an unused front sorbent section to a culture tube. Prepare a total of 24 culture tubes in order to measure DE at five concentration levels plus blank in quadruplicate. Using a microliter syringe or micropipette, add calibration stock solution directly to sorbent. Cap culture tubes and allow to stand overnight. Desorb and analyze (steps 8, 9, and 13 through 15). Prepare graphs of DE vs. amounts found.
    b. Check R and DE at two levels for each sample set, in duplicate. Repeat determination of R or DE graphs if checks do not agree to within ±5% of R or DE graph.
12. Analyze at least three field blanks for each sample medium.

MEASUREMENT:

13. Set HPLC according to manufacturer's instructions, conditions on page 5506-1, and steps 14 and 15.
14. Inject sample aliquot (10 to 50 µL). Start mobile phase gradient:
    a. Linear gradient from 60% acetonitrile/40% deionized water to 100% acetonitrile at 1 mL/min over 20 min.
    b. Hold at 100% acetonitrile for 20 min.
    c. Linear gradient to initial condition, 5 min.
15. Measure peak areas for each analyte using the appropriate detector as specified in Table 1.
    NOTE 1: The order of elution for the PAHs appears in Table 4.
    NOTE 2: If peak area is above the calibration range, dilute with acetonitrile, reanalyze, and apply dilution factor in calculations.
    NOTE 3: If sample has many interferences, additional sample cleanup may be necessary.

CALCULATIONS:

16. Read the mass, µg (corrected for R or DE) of each analyte found on the filter (W) and front sorbent (W_f) and back sorbent (W_b) sections, and on the average media blank filter (B) and front sorbent (B_f) and back sorbent (B_b) sections from the calibration graphs.
17. Calculate concentration, C (mg/m^3), as the sum of the particulate concentration and the vapor concentration in the actual air volume sampled, V (L).

$$C = \frac{\left\{ W + W_f + W_b - B - B_f - B_b \right\}}{V}, \ mg/m^3$$

NOTE 1: µg/mL = mg/m^3

NOTE 2: W_f and W_b include analyte originally collected on the filter as particulate, then volatilized during sampling. This can be a significant fraction for many PAHs (e.g., anthracene, fluoranthene, fluorene, naphthalene, phenanthrene).

EVALUATION OF METHOD:

The UV detector is used to analyze for some PAHs (see Table 1), and the remaining PAHs are analyzed by a fluorescent detector, which gave better sensitivity for some PAHs. The ranges of the limit of detection (LOD) and the limit of quantitation (LOQ) values for the 17 PAHs are reported in Table 4 [4]. The LOD and LOQ values varied because of differences in the detectors used and the concentrations of the standards. Therefore, it is important that the LOD and LOQ values be determined for each set of samples. The LOQs are the lower end of the analytical ranges. The upper end of the analytical ranges were not determined.

This method was evaluated by means of a user check [5]. An independent laboratory prepared spiked filters and sorbent tubes for a recovery and desorption efficiency study (see Table 4). For the filters, except naphthalene, the recovery results were greater than or equal to 75%. Since naphthalene is fairly volatile under ambient conditions, this may account for the poor recovery results. For the sorbent tubes, only four of the 17 analytes had desorption efficiencies that were greater than or equal to 75%. During the user check, the sorbent tubes were extracted by adding 5 mL acetonitrile and were allowed to stand for 30 minutes with occasional swirling. In more recent quality control experiments, the desorption efficiencies were often better for some analytes (see Table 4) [4]. These results were achieved using an ultrasonic bath for 30 to 60 minutes. The results indicated the importance of preparing media spikes for recovery and desorption efficiency studies for each set of samples; moreover, the results reenforce this need when using new lots of media.

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METHOD REVISED BY:

L. D. Olsen, B. R. Belinky, C. E. Neumeister, L. B. Jaycox, and D. D. Dollberg, NIOSH/DPSE.

TABLE 1. FORMULAS AND PHYSICAL PROPERTIES.

COMPOUND (by M.W.)	FORMULA	WEIGHT	DETECTOR	MELTING POINT (°C)	BOILING POINT (°C)	REFERENCE
1. NAPHTHALENE	$C_{10}H_8$	128.17	UV	80.2	218	[6]
2. ACENAPHTHYLENE	$C_{12}H_8$	152.20	UV	92.5	280	[6]
3. ACENAPHTHENE	$C_{12}H_{10}$	154.21	UV	93.4	279	[6]
4. FLUORENE	$C_{13}H_{10}$	166.22	UV	115	295	[6]
5. ANTHRACENE	$C_{14}H_{10}$	178.23	UV	215	340	[6]
6. PHENANTHRENE	$C_{14}H_{10}$	178.23	UV	99.2	340	[6
7. FLUORANTHENE	$C_{16}H_{10}$	202.26	FL	108	384	[6]
8. PYRENE	$C_{16}H_{10}$	202.26	FL	151	404	[6]
9. BENZ[a]ANTHRACENE	$C_{18}H_{12}$	228.29	FL	167	435	[7]
10. CHRYSENE	$C_{18}H_{12}$	228.29	UV	258	448	[6]
11. BENZO[b]FLUORANTHENE	$C_{20}H_{12}$	252.32	FL	168	–	[7]
12. BENZO[k]FLUORANTHENE	$C_{20}H_{12}$	252.32	FL	217	480	[6]
13. BENZO[a]PYRENE	$C_{20}H_{12}$	252.32	FL	177	495	[6, 8]
14. BENZO[e]PYRENE	$C_{20}H_{12}$	252.32	FL	178	311	[6]
15. BENZO[ghi]PERYLENE	$C_{22}H_{12}$	276.34	FL	278	–	[7]
16. INDENO[1,2,3-cd]PYRENE	$C_{22}H_{12}$	276.34	FL	164	–	[7]
17. DIBENZ[a,h]ANTHRACENE	$C_{22}H_{14}$	278.35	FL	270	524	[7, 8]

TABLE 2. SYNONYMS, CAS AND RTECS NUMBERS.

COMPOUND (alphabetically)	SYNONYMS, CAS and RTECS Numbers*
1. ACENAPHTHENE	CAS # 83-32-9; RTECS # AB1000000
2. ACENAPHTHYLENE	acenaphthalene; CAS # 208-96-8; RTECS # AB1254000
3. ANTHRACENE	CAS # 120-12-7; RTECS # CA9350000
4. BENZ[a]ANTHRACENE	1,2-benzanthracene; benzo[b]phenanthrene; 2,3-benzophenanthrene; tetraphene; CAS # 56-55-3; RTECS # CV9275000
5. BENZO[b]FLUORANTHENE	3,4-benzofluoranthene; 2,3-benzofluoranthene; benz[e]acephenanthrylene; B(b)F; CAS # 205-99-2; RTECS # CU1400000
6. BENZO[k]FLUORANTHENE	11,12-benzofluoranthene; CAS # 207-08-9; RTECS # DF6350000
7. BENZO[ghi]PERYLENE	1,12-benzoperylene; CAS # 191-24-2; RTECS # DI6200500
8. BENZO[a]PYRENE	3,4-benzopyrene; 6,7-benzopyrene; B(a)P; BP; CAS # 50-32-8; RTECS # DJ3675000
9. BENZO[e]PYRENE	1,2-benzopyrene; 4,5-benzopyrene; B(e)P; CAS # 192-97-2; RTECS # DJ4200000
10. CHRYSENE	1,2-benzophenanthrene; benzo[a]phenanthrene; CAS # 218-01-9; RTECS # GC0700000
11. DIBENZ[a,h]ANTHRACENE	1,2,5,6-dibenzanthracene; CAS # 53-70-3; RTECS # HN2625000
12. FLUORANTHENE	benzo[j]fluorene; CAS # 206-44-0; RTECS # LL4025000
13. FLUORENE	CAS # 86-73-7; RTECS # LL5670000
14. INDENO[1,2,3-cd]PYRENE	2,3-phenylenepyrene; CAS # 193-39-5; RTECS # NK9300000
15. NAPHTHALENE	naphthene; CAS # 91-20-3; RTECS # QJ0525000
16. PHENANTHRENE	CAS # 85-01-8; RTECS # SF7175000
17. PYRENE	benzo[def]phenanthrene; CAS # 129-00-0; RTECS # UR2450000

* Data from [6, 8, and 9].

TABLE 3. EXPOSURE LIMITS*.

COMPOUND	OSHA†	NIOSH‡	ACGIH§
1. ANTHRACENE	0.2 mg/m³	–	
2. BENZ[a]ANTHRACENE	–	–	suspect human carcinogen
3. BENZO[b]FLUORANTHENE	–	–	suspect human carcinogen
4. BENZO[a]PYRENE	0.2 mg/m³	–	suspect human carcinogen
5. CHRYSENE	0.2 mg/m³	potential occupational carcinogen§	animal carcinogen
6. NAPHTHALENE	10 ppm; STEL 15 ppm	10 ppm; STEL 15 ppm	10 ppm; STEL 15 ppm
7. PHENANTHRENE	0.2 mg/m³	–	–
8. PYRENE	0.2 mg/m³	–	–

* This table only includes the compounds with established exposure limit values.
† Information from [10].
‡ Information from [11].
§ Information from [12].

TABLE 4. LOD AND LOQ VALUES, AND RECOVERY DATA.

COMPOUND (by elution order)	Range of values*		Recoveries (%)†	
	LOD (µg per sample)	LOQ (µg per sample)	Filters	Sorbent tubes
1. NAPHTHALENE	0.20 - 0.80	0.39 - 2.6	49.6	68.5
2. ACENAPHTHYLENE	0.090 - 2.0	0.28 - 6.6	98.2	98.2
3. ACENAPHTHENE	0.20 - 5.0	0.58 - 16.	--	--
4. FLUORENE	0.030 - 0.30	0.099 - 0.26	95.0	95.0
5. PHENANTHRENE	0.0070 - 0.060	0.023 - 0.19	99.0, 90.4*	84.0, 92.5*, 82.6*
6. ANTHRACENE	0.0010 - 0.090	0.023 - 0.30	81.8, 94.4*	72.8, 96.2*, 72.9*
7. FLUORANTHENE	0.0020 - 0.090	0.0066 - 0.30	94.9, 90.4*	73.0, 93.5*, 81.7*
8. PYRENE	0.0010 - 0.30	0.0036 - 0.99	94.4, 76.1*	84.9, 77.0*, 75.9*
9. BENZ[a]ANTHRACENE	0.0010 - 0.090	0.0042 - 0.30	86.6, 92.7*	62.4, 95.0*, 72.3*
10. CHRYSENE	0.0070 - 0.20	0.023 - 0.37	94.6, 89.9*	62.7, 89.8*, 74.0*
11. BENZO[e]PYRENE	0.0060 - 0.80	0.020 - 2.6	110	48.3
12. BENZO[b]FLUORANTHENE	0.0030 - 0.20	0.011 - 0.66	94.8	64.2
13. BENZO[k]FLUORANTHENE	0.0020 - 0.040	0.0054 - 0.13	103	53.2
14. BENZO[a]PYRENE	0.0020 - 0.10	0.0051 - 0.33	101, 88.1*	50.4, 91.6*, 68.4*
15. DIBENZ[a,h]ANTHRACENE	0.0040 - 0.60	0.014 - 2.0	76.5	61.0
16. BENZO[ghi]PERYLENE	0.0030 - 0.50	0.011 - 1.7	76.5	61.0
17. INDENO[1,2,3-cd]PYRENE	0.0090 - 0.20	0.027 - 0.66	91.6	36.5

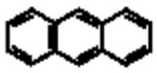
* Data from [4].
† Data from [5]



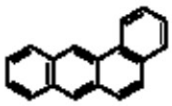
ACENAPHTHENE



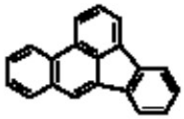
ACENAPHTHYLENE



ANTHRACENE



BENZ[a]ANTHRACENE



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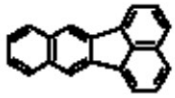
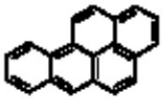


BENZO[k]FLUORANTHENE



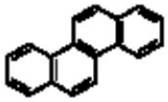
BENZO[g h i]PERYLENE



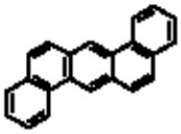
BENZO[a]PYRENE



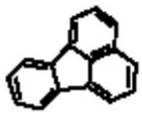
BENZO[e]PYRENE



CHRYSENE



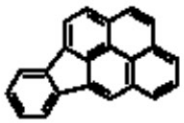
DIBENZ[a,h]ANTHRACENE



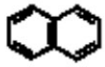
FLUORANTHENE



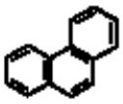
FLUORENE



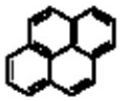
INDENO[1,2,3-c d]PYRENE



NAPHTHALENE



PHENANTHRENE



PYRENE

Figure 1. Structure of the PAHs.

SILICA, CRYSTALLINE, by XRD (filter redeposition) 7500

SiO_2 MW: 60.08 CAS: 14808-60-7 (quartz) RTECS: VV7330000 (quartz)
14464-46-1 (cristobalite) VV7325000 (cristobalite)
15468-32-3 (tridymite) VV7335000 (tridymite)

METHOD: 7500, Issue 4 **EVALUATION: FULL** **Issue 1: 15 August 1990**
Issue 4: 15 March 2003

OSHA : quartz (respirable) 10 mg/m³/(%SiO_2+2); cristobalite and tridymite (respirable) ½ the above
NIOSH: 0.05 mg/m³; carcinogen
ACGIH: quartz (respirable) 0.1 mg/m³
cristobalite (respirable) 0.05 mg/m³
tridymite (respirable) 0.05 mg/m³

PROPERTIES: solid; d 2.65 g/cm³ @ 0 °C; crystalline transformations: quartz to tridymite @ 867 °C; tridymite to cristobalite @ 1470 °C; α-quartz to ß-quartz @ 573 °C

SYNONYMS: free crystalline silica; silicon dioxide

SAMPLING

SAMPLER:	CYCLONE + FILTER (10-mm nylon cyclone, Higgins-Dewell (HD) cyclone, or aluminum cyclone + 5-µm PVC membrane) *see sampling section
FLOW RATE:	Nylon cyclone: 1.7 L/min; HD cyclone: 2.2 L/min; aluminum cyclone: 2.5 L/min
VOL-MIN:	400 L
-MAX:	1000 L
SHIPMENT:	Routine
SAMPLE STABILITY:	Stable
BLANKS:	2 to 10 per set (see step 13.g.)
BULK SAMPLE:	High-volume or settled dust; to identify interferences

ACCURACY

RANGE STUDIED:	25 to 2500 µg/m³ [1] (800-L sample)
BIAS:	None known
OVERALL PRECISION ($\hat{S}_{rT}$):	0.09 (50 to 200 µg) [1]
ACCURACY:	± 18%

MEASUREMENT

TECHNIQUE:	X-RAY POWDER DIFFRACTION
ANALYTE:	Crystalline SiO_2
ASH:	Muffle furnace or RF plasma asher or dissolve in tetrahydrofuran
REDEPOSIT:	On 0.45-µm Ag membrane filter
XRD:	Cu target X-ray tube, graphite monochromator Optimize for intensity; 1° slit Slow step scan, 0.02°/10 sec Integrated intensity with background subtraction
CALIBRATION:	NIST SRM 1878a quartz, NIST SRM 1879a cristobalite, USGS 210-75-0043 tridymite suspensions in 2-propanol.
RANGE:	0.02 to 2 mg SiO_2 per sample [2]
ESTIMATED LOD:	0.005 mg SiO_2 per sample [2]
PRECISION ($\hat{S}_r$):	0.08 @ 0.05 to 0.2 mg per sample [1]

APPLICABILITY: The working range is 0.025 to 2.5 mg/m³ for an 800-L air sample.

INTERFERENCES: Micas, potash, feldspars, zircon, graphite, and aluminosilicates. See APPENDIX.

OTHER METHODS: This is similar to the method in the Criteria Document [3] and P&CAM 259 [4] which has been collaboratively tested [1]. This method is similar, except for sample collection, to S315 [5,6]. Method P&CAM 109 [7,8,9], which incorporates an internal standard, has been dropped. XRD can distinguish the three silica polymorphs and silica interferences can be eliminated by phosphoric acid treatment. IR (methods 7602 and 7603) can also quantify quartz, cristobalite and tridymite if amorphorous silica and silicates are not present in large amounts. However sensitivity is reduced if multiple polymorphs are present and secondary peaks must be used. Crystalline silica can also be determined by visible absorption spectrophotometry (e.g., Method 7601), but polymorphs can not be distinguished. Visible absorption methods also have larger laboratory-to-laboratory variability than XRD and IR methods and therefore are recommended for research use only [10].

REAGENTS:

1. Silica Standards.
   a. Quartz* (SRMs 1878a, 2950, 2951, 2958) and Cristobalite* (SRMs 1879a, 2960, 2957), available from Standard Reference Materials Program, Rm. 204, Bldg. 202, National Institute of Standards and Technology (NIST), Gaithersburg, MD 20899; www.nist.gov.
   b. Tridymite* (210-75-0043) available from U.S. Geological Survey, Box 25046, MS 973, Denver, CO 80225.
2. 2-Propanol*, reagent grade.
3. Desiccant.
4. Glue or tape for securing Ag filters to XRD holders.
5. Optional: tetrahydrofuran (THF)* (if LTA or muffle furnace are unavailable).
6. 1.5 % parlodion solution. (Dissolve 1.5 g of parlodion* in isopentyl acetate* and dilute to 100 mL with isopentyl acetate.)
7. Optional (if calcite present): 25% v/v concentrated hydrochloric acid* (ACS reagent grade) in distilled water and 25-mm filters of PVC or cellulose ester with pore size of 1 µm or less.

* See SPECIAL PRECAUTIONS.

EQUIPMENT:

1. Sampler:
   a. Filter: Polyvinyl chloride (PVC) filter, 37-mm, 5.0-µm pore size supported with backup pad in a two-piece, 37-mm cassette filter holder (preferably, conductive) held together by tape or cellulose shrink band.
      NOTE: Check each new lot of PVC filters by analyzing one or more by this method. For example, Gelman VM-1 filters (all lots) were found to be unacceptable because of high ash and background. If THF is used, check for complete dissolution by dissolving a blank PVC filter and following steps 5c through 8.
   b. Cyclone: 10-mm nylon, Higgins-Dewell (HD), Aluminum (Al), or equivalent [11].
2. Area air sampler: PVC membrane filter, 37-mm diameter, 5-µm pore size; three-piece filter cassette.
3. Sampling pumps with flexible connecting tubing, capable of the following flow rates: nylon cyclone, 1.7 L/min; HD cyclone, 2.2 L/min; Al cyclone, 2.5 L/min; and bulk sampler, 3 L/min.
4. Silver membrane filters, 25-mm diameter, 0.45-µm pore size, available from Sterlitech Corp., 22027 70th Ave S, Kent, WA 98032-1911; www.sterlitech.com.
5. X-ray powder diffractometer (XRD) equipped with copper target X-ray tube, graphite monochromator, and scintillation detector.
6. Reference specimen (mica, Arkansas stone, or other stable standard) for data normalization.
7. Low-temperature radio-frequency plasma asher (LTA) or muffle furnace, or ultrasonic bath (≥150 W), for filter preparation.
8. Vacuum filtration assembly and side-arm vacuum flask with a 25-mm filter holder.
9. Sieve, 10-µm, for wet sieving.
10. Analytical balance (0.001 mg); magnetic stirrer with thermally insulated top; ultrasonic bath or probe; volumetric pipettes and flasks; Pyrex crucibles with covers (muffle furnace); 40-mL wide-mouth or 50-mL centrifuge tubes (THF method); desiccator; reagent bottles with ground glass stoppers; drying oven; polyethylene wash bottle.
11. Explosion-resistant hot plate.
12. Teflon sheet, 0.3 to 1 mm thick.

SPECIAL PRECAUTIONS: Avoid inhaling silica dust [3]. THF is extremely flammable and should be used in a fume hood. 2-Propanol, parlodion and isopentyl acetate are flammable. Hydrochloric acid is corrosive and should be used in a fume hood.

SAMPLING:

1. Calibrate each personal sampling pump with a representative sampler in line.
2. Sample at 1.7 ± 5% L/min with nylon cyclone or 2.2 ± 5% L/min with HD cyclone for a total sample size of 400 to 1000 L. Do not exceed 2 mg dust loading on the filter.
   NOTE 1: Do not allow the sampler assembly to be inverted at any time when using a cyclone. Turning the cyclone to anything other than a horizontal orientation may deposit oversized material from the cyclone body onto the filter.
   NOTE 2: A single sampler/flow rate should be used for a given application. Sampling for both crystalline silica and coal mine dust should be done in accordance with the ISO/CEN/ACGIH/ASTM respirable aerosol sampling convention. Flow rates of 1.7 L/min for the Dorr-Oliver nylon cyclone and 2.2 L/min for the Higgins-Dewell cyclone have been found to be optimal for this purpose. Outside of coal mine dust sampling, the regulatory agencies currently use these flow rates with the Dorr-Oliver cyclone in the United States and the Higgins-Dewell sampler in the United Kingdom. Though the sampling recommendations presented in a NIOSH Criteria Document have been formally accepted by MSHA for coal mine dust sampling, the Dorr-Oliver cyclone at 2.0 L/min with 1.38 conversion factor is currently used in the United States for the purpose of matching an earlier sampling convention [12]. In any case, a single sampler/flow rate should be used in any given application so as to eliminate bias introduced by differences between sampler types and sampler conventions [11].
3. Take an area air sample or collect a settled dust sample, if dust in the work environment has not been previously characterized.

SAMPLE PREPARATION:

4. Samples may be characterized by one of the following methods, as appropriate.
   a. **Interference check.** Prepare area dust sample or settled dust bulk sample for XRD analysis by mounting the collection sample directly on an XRD sample holder, or by depositing or redepositing the dust on another filter for mounting, or by packing an XRD powder holder. Proceed to step 11.
   b. **Qualitative Analysis.** Prepare the area air sample or settled dust sample for qualitative analysis by grinding and/or wet sieving to best match the airborne dust particle size. Wet sieve with a 10-µm sieve, 2-propanol, and an ultrasonic bath [13], followed by evaporation of excess alcohol, drying in an oven for 2 hours, and overnight storage in a desiccator. Deposit the end product on a filter (steps 7-8) or pack in a conventional XRD powder holder.
      NOTE 1: For quantitative determination of % SiO_2, weigh out, in triplicate, 2 mg sieved dust, transfer to a 50-mL beaker, add 10 mL 2-propanol, and continue with step 6.
      NOTE 2: In a bulk sample, if there is an interfering compound(s) that renders the identification and quantitation of quartz very difficult, the sample will need to be carefully treated in hot phosphoric acid [14] to dissolve the interfering compound(s) and avoid the loss of quartz. This treatment can be used to dissolve several 50-mg sample aliquots in order to concentrate the quartz content for the purpose of lowering the LOD.
5. Use one of the following methods to prepare filter samples and blanks:
   a. **Low Temperature Ashing:** Place the filters in 50-mL beakers within the low temperature asher so that the sample exposure to the plasma is optimized. Ash according to manufacturer's instructions. After ashing, carefully add 15 mL 2-propanol to each beaker; or
   b. **Muffle Furnace Ashing:**
      i. If the samples contain a significant amount of calcite (>20% of total dust loading), silica may be lost due to formation of $CaSiO_3$. Remove the calcite by the following procedure: Place a 0.5-µm, 25-mm PVC filter in the filtration apparatus and clamp the filter funnel over it. Remove the sample filter from the cassette, fold, and drop it on the 25-mm filter. Add 10 mL 25% v/v HCl and

5 mL 2-propanol to the filter funnel and allow to stand for 5 min. Apply vacuum and slowly aspirate the acid and alcohol in the funnel, washing with three successive 10-mL portions of distilled water. Release the vacuum. Carry both filters through the ashing step together.

ii. Place the filter samples in porcelain crucibles, loosely cover and ash in muffle furnace for 2 h at 600 °C (800 °C if graphite is present). Add several mL 2-propanol to the ash, scrape the crucible with a glass rod to loosen all particles and transfer the residue to a 50-mL beaker. Wash the crucible several more times and add wash to beaker. Add 2-propanol to the beaker to bring the volume to about 15 mL; or

c. **Filter Dissolution:** Using forceps and a spatula, remove the filter from the cassette, fold the filter three times, and place in the bottom of a 40- or 50-mL centrifuge tube. Add 10 mL THF and allow to stand for at least 5 min. Cap the centrifuge tube with aluminum foil to prevent contamination. Gently agitate the centrifuge tube by hand or with a vortex mixer making sure the THF does not go near the top of the tube. Place the tube in an ultrasonic bath (water level 2.5 cm from top) for at least 10 min. (The filter should be totally dissolved.) Just prior to filtering, agitate the sample for 10 to 20 sec on a vortex mixer. Continue with step 6, substituting THF for 2-propanol and centrifuge tube for beaker.

6. Cover the beaker with a watchglass and agitate in an ultrasonic bath for at least 3 min. Observe the suspension to make sure that the agglomerated particles are broken up. Wash the underside of the watchglass with 2-propanol, collecting the washings in the beaker.

7. Place a silver filter in the filtration apparatus. Attach the funnel securely over the entire filter circumference. With no vacuum, pour 2 to 3 mL 2-propanol onto the filter. Pour the sample suspension from the beaker into the funnel. After the transfer, rinse the beaker several times and add rinsings to the funnel for a total volume of 20 mL. In order to minimize feathering of the sample outside the deposition area, allow the suspension to settle for a few minutes prior to applying vacuum. Do not rinse the chimney after the material has been deposited on the silver filter. Rinsing the chimney can disturb the thin layer deposition.

8. Leave the vacuum on after filtration to produce a dry filter. Place 2 drops of 1.5% parlodion solution on a glass slide. Remove the silver filter with forceps and fix the material to the filter by placing the bottom side of the filter in the parlodion solution. Place the saturated filter on top of the Teflon sheet which has been heated on the hot plate at a low temperature setting. When thoroughly dry, mount the silver filter in the XRD sample holder.

CALIBRATION AND QUALITY CONTROL:

9. Prepare and analyze at least 6 levels of standard filters.

NOTE 1: Calibration standards are limited to NIST and USGS certified standards of known purity, particle size, and sample-to-sample homogeneity. At least 12 materials, including 5-µm Min-U-Sil, previously used by laboratories throughout the United States and Canada, have been evaluated, and none have been found to be acceptable alternatives to the certified standards cited within this method [10]. Standard reference materials should be corrected for phase purity.

NOTE 2: Crystalline silica methods require calibration standards of known purity, specific particle size and distribution, and sample-to-sample homogeneity. Establishing traceability of secondary calibration standards to the specified NIST and USGS primary standards requires the use of measurement methods with better precision and accuracy than the XRD, IR and visible absorption spectrophotometry methods commonly used in the industrial hygiene field can provide. In addition, particle size distribution measurements have considerable error. Therefore, the use of secondary calibration standards that are traceable to NIST and USGS certified standards is not appropriate.

NOTE 3: NIST SRM 2950 calibration set (α-quartz) and NIST SRM 2960 calibration set (cristobalite) may be useful for preparing working standards at known concentrations.

a. Prepare two suspensions of each analyte in 2-propanol by weighing 10 and 50 mg of the standard material to the nearest 0.01 mg. Quantitatively transfer each to a 1-L glass-stoppered bottle using 1.00 L of 2-propanol.

b. Suspend the powder in 2-propanol with an ultrasonic probe or bath for 20 min. Immediately move the bottle to a magnetic stirrer with thermally insulated top and add a stirring bar. Allow the solution to return to room temperature before withdrawing aliquots.

c. Mount a silver filter on the filtration apparatus. Place several mL of 2-propanol on the filter. Turn off the stirrer and shake vigorously by hand. Immediately remove the stopper and withdraw an aliquot from the center at half-height of the 10 mg/L or 50 mg/L suspension. Do not adjust the volume in the pipet by expelling part of the suspension. If more than the desired aliquot is withdrawn, discard the aliquot in a beaker, rinse and dry the pipet, and take a new aliquot. Transfer the aliquot from the pipet to the silver filter, keeping the tip of the pipet near the surface but not submerged in the delivered suspension.

d. Rinse the pipet with several mL 2-propanol, draining the rinse into the funnel. Repeat the rinse several times.

e. Allow the suspension to settle for a few minutes prior to applying vacuum. Apply vacuum and rapidly filter the suspension. Do not wash down the sides of the funnel after the deposit is in place since this will rearrange the material on the silver filter. Leave vacuum on until filter is dry. Place 2 drops of 1.5% parlodion solution on a glass slide. Remove the silver filter with forceps and fix the material to the filter by placing the bottom side of the filter in the parlodion solution. Place the saturated filter on top of the heated Teflon sheet. When thoroughly dry, mount the silver filter in the XRD sample holder. Prepare working standard filters, in triplicate, at e.g., 10, 20, 50, 100, 250, and 500 µg.

f. Analyze the working standards together with samples and blanks (step 12). The XRD intensities for the working standards (step 12.d) are designated I_x^o and are then normalized (step 12.e) to obtain $\bar{I}_x^o$. Correct the intensities of working standards >200 µg for matrix absorption (steps 12.f and 13).

g. Prepare a calibration graph ($\bar{I}_x^o$, vs µg of each standard).

NOTE: Poor repeatability (>10% above 0.04 mg silica) at any given level indicates that new standards should be made. The data should lie along a straight line. A weighted least squares ($1/\sigma^2$ weighting) is preferable.

h. Determine the slope, m, of the calibration graph in counts/µg. The intercept, b, on the abscissa should be within ± 5 µg of zero.

NOTE: A large intercept indicates an error in determining the background, i.e., an incorrect baseline or interference by another phase.

10. NOTE: The following procedure for absorption correction is not necessary in situations that have been previously documented as requiring no corrections.

Select six silver membrane filters as media blanks randomly from the same box of filters to be used for depositing the samples. These will be used to test for sample self-absorption. Mount each of the media blanks on the filtration apparatus and apply vacuum to draw 5 to 10 mL 2-propanol through the filter. Remove, let dry, and mount on XRD holders. Determine the net normalized count for the silver peak, I_{Ag}, for each media blank (step 12.g). Obtain an average value for the six media blanks, $\bar{I}_{Ag}^o$.

NOTE: The analyst is a critical part of this analytical procedure [12]. A high level of analyst expertise is required to optimize instrument parameters and correct for matrix interferences either during the sample preparation phase or the data analysis and interpretation phase [15]. The analyst should have some training (university or short course) in mineralogy or crystallography in order to have a background in crystal structure, diffraction patterns and mineral transformation. In addition, an intensive short course in the fundamentals of X-ray diffraction can be useful.

MEASUREMENT:

11. Obtain a qualitative X-ray diffraction scan (e.g., 10 to 80 °2θ) of the area air sample (or bulk settled dust) to determine the presence of free silica polymorphs and interferences (see APPENDIX). The diffraction peaks are:

Mineral	Peak (2-Theta Degrees)		
	Primary	Secondary	Tertiary
Quartz	26.66	20.85	50.16
Cristobalite	21.93	36.11	31.46
Tridymite	21.62	20.50	23.28
Silver	38.12	44.28	77.47

NOTE: There is an alternative to scanning an area air sample, settled dust sample, or ground bulk sample to prove lack of contamination. A slow scan of the three main peaks of quartz (also cristobalite and tridymite if their absence has not been previously confirmed) on a personal air sample, with verification that their intensity ratios are within 15% of pure quartz, is sufficient evidence that other materials are not interfering in the silica determination.

12. Perform the following for each sample, working standard, and blank filter:
    a. Mount the reference specimen. Determine the net intensity, I_r, of the reference specimen before and after each filter is scanned. Use a diffraction peak of high intensity that can be rapidly but reproducibly (S_r <0.01) measured.
    b. Mount the sample, working standard, or blank filter. Measure the diffraction peak area for each silica polymorph. Scan times must be long, e.g., 15 min (longer scan times will lower the limit of detection).
    c. Measure the background on each side of the peak for one-half the time used for peak scanning. The sum of these two counts is the average background. Determine the position of the background for each sample.
    d. Calculate the net intensity, I_x, (the difference between the peak integrated count and the total background count).
    e. Calculate and record the normalized intensity, I_x, for each peak:

$$I_x = \frac{I_x}{I_r} \cdot N$$

NOTE: Select a convenient normalization scale factor, N, which is approximately equivalent to the net count for the reference specimen peak, and use this value of N for all analyses. Normalizing to the reference specimen intensity compensates for long-term drift in X-ray tube intensity. If intensity measurements are stable, the reference specimen may be run less frequently and the net intensities should be normalized to the most recently-measured reference intensity.

    f. Determine the normalized count, I_{Ag}, of an interference-free silver peak on the sample filter following the same procedure. Use a short scan time for the silver peak (e.g., 5% of scan time for analyte peaks) throughout the method.
    g. Field blanks may be analyzed by scanning the 2-theta range used for the analyte and silver peaks to verify that contamination of the filters has not occurred. The analyte peak should be absent. The normalized intensity of the silver peak should match that of the media blank. Each laboratory should determine the specifics of field blank use for its application. When contamination does occur, the reason should be investigated and appropriate action taken. In practice, contamination of field blanks is extremely rare and usually is not consistent across filters. The analysis of blanks may be abbreviated if experience indicates that contamination is not likely with current field and laboratory operations; however, occasional confirmation of non-contamination is prudent.

CALCULATIONS:

13. Calculate the concentration of crystalline silica, C (mg/m^3), in the air volume sampled, V (L):

$$C = \frac{I_x \cdot f(t) - b}{m \cdot V}, mg/m^3$$

I_x = normalized intensity for sample peak
b = intercept of calibration graph (I_x^o vs. µg)
m = slope of calibration graph, counts/µg
f(t) = $-R \ln T/(1 - T^R)$ = absorption correction factor (Table 1)

R = $\sin(\Theta_{Ag})/\sin(\Theta_x)$
T = $I_{Ag}/(\text{average } I^o_{Ag})$ = transmittance of sample
I_{Ag} = normalized silver peak intensity from sample
I^o_{Ag} = normalized silver peak intensity from media blanks (average of six values)

EVALUATION OF METHOD:

This method is based on P&CAM 259 which was collaboratively tested [1]. The testing included a ruggedization step to test the effects of the use of muffle furnace or plasma asher (but not the use of THF), shipment of samples, ashing time, and ultrasonication time. None of these factors was found to have an effect. The method was shown to have no bias when referenced to the Talvitie spectrophotometric method [14] and when all standards and samples were Min-U-Sil 5. The relative standard deviations (S_r) for intralaboratory, total measurement and overall (including sampling) variability are:

	Analyte Level (µg)	Measurement Precision (S_r)	Overall Precision (S_{rT})
Intralaboratory	50-200	0.08 [1]	
	20	0.20 [5]	
	10	0.28 [9]	
Total (intra- and interlaboratory)	50-200	0.17 [1]	0.29 [1]

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APPENDIX: INTERFERENCES

Interferences include barite, micas (muscovite, biotite), potash, feldspars (microcline, plagioclase), montmorillonite, sillimanite, zircon, graphite, iron carbide, clinoferrosilite, wollastonite, sanidine, leucite, orthoclase, and lead sulfide.

The patterns for three forms of aluminum phosphate [JCPDS 10-423, 11-500, 20-44] are practically identical to those of quartz, cristobalite and tridymite, respectively. The quartz secondary and cristobalite primary peaks are close; cristobalite secondary peak is overlapped by a quartz peak; tridymite, if present in sufficient quantity, will interfere with all of the main (primary, secondary and tertiary) quartz and cristobalite peaks. Silver chloride, if present on the silver filter, interferes slightly with the primary quartz peak. Many of these interferences occur in the presence of quartz; however, in a study of samples collected in 11 different industries, Altree-Williams [20] found no significant interferences.

The presence of elements such as iron can result in appreciable X-ray fluorescence which leads to high background intensity. A diffracted-beam monochromator will minimize this problem.

If calcite is present, loss of quartz will occur when samples are ashed in a muffle furnace. See SAMPLE PREPARATION (step 5.b) for procedure to remove calcite.

If interferences with the primary silica peak are present, use a less sensitive peak. When overlaps are not severe, a smaller receiving slit or chromium radiation may be used; however, a new calibration curve will be necessary.

Table 1. Absorption correction factor as a function of transmittance for some silica-silver peak combinations [16-21].

		f(T) (at indicated degrees 2-θ)							
Transmittance	Silica	26.66	26.66	20.83	20.83	21.93	21.93	21.62	21.62
T	Silver	38.12	44.28	38.12	44.28	38.12	44.28	38.12	44.28
1.00		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.99		1.0071	1.0082	1.0091	1.0105	1.0087	1.0100	1.0088	1.0101
0.98		1.0144	1.0166	1.0184	1.0212	1.0174	1.0201	1.0177	1.0204
0.97		1.0217	1.0251	1.0278	1.0321	1.0264	1.0305	1.0268	1.0309
0.96		1.0292	1.0337	1.0373	1.0432	1.0355	1.0410	1.0360	1.0416
0.95		1.0368	1.0425	1.0470	1.0544	1.0447	1.0517	1.0453	1.0524
0.94		1.0445	1.0514	1.0569	1.0659	1.0541	1.0625	1.0548	1.0635
0.93		1.0523	1.0605	1.0670	1.0776	1.0636	1.0736	1.0645	1.0747
0.92		1.0602	1.0697	1.0772	1.0894	1.0733	1.0849	1.0743	1.0861
0.91		1.0683	1.0791	1.0876	1.1015	1.0831	1.0963	1.0844	1.0977
0.90		1.0765	1.0886	1.0982	1.1138	1.0932	1.1080	1.0945	1.1096
0.89		1.0848	1.0983	1.1089	1.1264	1.1034	1.1199	1.1049	1.1216
0.88		1.0933	1.1081	1.1199	1.1392	1.1137	1.1320	1.1154	1.1339
0.87		1.1019	1.1181	1.1311	1.1522	1.1243	1.1443	1.1261	1.1464
0.86		1.1106	1.1283	1.1424	1.1654	1.1350	1.1568	1.1370	1.1592
0.85		1.1195	1.1387	1.1540	1.1790	1.1460	1.1696	1.1481	1.1722
0.84		1.1286	1.1493	1.1657	1.1927	1.1571	1.1827	1.1595	1.1854
0.83		1.1378	1.1600	1.1777	1.2068	1.1685	1.1959	1.1710	1.1989
0.82		1.1471	1.1709	1.1899	1.2211	1.1800	1.2095	1.1827	1.2126
0.81		1.1566	1.1821	1.2024	1.2357	1.1918	1.2232	1.1946	1.2266
0.80		1.1663	1.1934	1.2150	1.2506	1.2038	1.2373	1.2068	1.2409
0.79		1.1762	1.2050	1.2280	1.2658	1.2160	1.2516	1.2192	1.2555
0.78		1.1863	1.2168	1.2411	1.2812	1.2284	1.2663	1.2319	1.2703
0.77		1.1965	1.2288	1.2546	1.2971	1.2411	1.2812	1.2447	1.2855
0.76		1.2069	1.2410	1.2683	1.3132	1.2540	1.2964	1.2579	1.3009
0.75		1.2175	1.2535	1.2822	1.3297	1.2672	1.3119	1.2713	1.3167
0.74		1.2283	1.2662	1.2965	1.3456	1.2806	1.3278	1.2849	1.3328
0.73		1.2394	1.2792	1.3110	1.3637	1.2944	1.3440	1.2989	1.3493
0.72		1.2506	1.2924	1.3259	1.3812	1.3084	1.3605	1.3131	1.3661
0.71		1.2621	1.3059	1.3410	1.3991	1.3226	1.3774	1.3276	1.3883
0.70		1.2738	1.3197	1.3565	1.4174	1.3372	1.3946	1.3424	1.4008
0.69		1.2857	1.3337	1.3723	1.4362	1.3521	1.4122	1.3576	1.4187
0.68		1.2979	1.3481	1.3885	1.4553	1.3673	1.4303	1.3730	1.4370
0.67		1.3103	1.3682	1.4050	1.4749	1.3829	1.4487	1.3888	1.4558
0.66		1.3230	1.3777	1.4218	1.4949	1.3987	1.4675	1.4050	1.4749
0.65		1.3359	1.3931	1.4390	1.5154	1.4150	1.4868	1.4215	1.4945
0.64		1.3491	1.4087	1.4567	1.5363	1.4316	1.5064	1.4383	1.5145
0.63		1.3626	1.4247	1.4747	1.5578	1.4485	1.5266	1.4556	1.5350
0.62		1.3765	1.4411	1.4931	1.5797	1.4659	1.5472	1.4732	1.5560
0.61		1.3906	1.4578	1.5120	1.6022	1.4836	1.5684	1.4913	1.5775
0.60		1.4050	1.4749	1.5314	1.6252	1.5018	1.5900	1.5098	1.5995
0.59		1.4198	1.4925	1.5511	1.6488	1.5204	1.6122	1.5287	1.6221
0.58		1.4349	1.5104	1.5714	1.6730	1.5394	1.6349	1.5481	1.6452
0.57		1.4504	1.5288	1.5922	1.6978	1.5590	1.6582	1.5679	1.6689
0.56		1.4662	1.5476	1.6135	1.7233	1.5790	1.6820	1.5883	1.6932
0.55		1.4824	1.5670	1.6353	1.7494	1.5995	1.7065	1.6092	1.7181
0.54		1.4991	1.6858	1.6577	1.7762	1.6205	1.7317	1.6306	1.7437
0.53		1.5161	1.6071	1.6807	1.8037	1.6421	1.7575	1.6525	1.7699
0.52		1.5336	1.6279	1.7043	1.8319	1.6642	1.7840	1.6751	1.7969
0.51		1.5515	1.6493	1.7285	1.8609	1.6870	1.8112	1.6982	1.8246
0.50		1.5699	1.6713	1.7534	1.8908	1.7103	1.8391	1.7220	1.8531

APPENDIX D—CHAIN OF CUSTODY; AIR SAMPLING LOG SHEETS; AND AIR SAMPLING LABELS

Tetra Tech NUS, Inc. CHAIN OF CUSTODY

NO.

Project No:	Facility:	Project Manger:	Phone:	Laboratory Name and Contact:
	LMC/MRC			
Samplers:		Field Ops. Leader:	Phone:	Address:
		Fed Ex Airbill Number:		City, State, Zip:

										Container Type: Plastic (P) or Glass (G)	P/G	P						
										Preservative Used:	0°C							
Date Year: 2015	Time	Sample ID	Location ID	Air Intake (FT)	Elapsed time (minutes)	Average Flow rate (lpm)	Total volume (Liters)	Total No. of Containers	ANALYSIS	*Poly-nucleated Aromatic hydrocarbons, NIOSH Method 5506; 37mm Cassette/XAD-2 Tube 100mg/50mg*	*Crystallie Silca, NIOSH Method 7500; 37mm cassette*							Comments

1. Relinquished By:	Date:	Time:	1. Received By:	Date:	Time:
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:

Comments: PAH samples will be protected from Ultra-violet light degradation. Collected samples will be wrapped in aluminum foil. PAH samples will also be cooled to 0°C for storage and shipment.

Sheet1 Sheet2 Sheet3

TETRA TECH, INC.

AIR SAMPLE LOG SHEET

Project Name: Lockheed Martin, Middle River Complex Project Number: 112IC05956

PAH Air Sampling analysis during Excavation Tax Block - .

Sample Date: _____/_____/_____ Sampler:

Air Sample Pump Type: Serial ID No.

Tetra Tech Sample No.: Client Sample No.:

Analytical Method No.: NIOSH 5506 Analytical Technique: HPLC Fluorescence/UV Detection

Analyte(s): Polycyclic Aromatic Hydrocarbons (PAHs)

TLV of Single Compound: 0.2 mg/m^3 as coal tar pitch volatiles TLV of Mixture:

Sample Media: FILTER+SOLID SORBENT (37mm, 2µm, PTFE = washed XAD,100 mg/50 mg); 2 lpm (Minimum volume = 200L; Max Volume 1000 Liters)

Average Flow Rate Average Flow Rate

Before Sampling: 2.0 l/min. After Sampling: l/min.

Average Flow Rate over Sampling Period: l/min.

Pump Status Checked at: _____ _____ _____ _____ _____ _____

Sample Type: (TWA/STEL/ENVIR)

Time On: Time Off: Total Time: Air Volume Sampled: liters

Worker or Area Sampled: SS No.: XXX-XX-

Plant Location or Process:

Job Description:

Filter Cassettes/Tubes Labeled and Sealed: Yes No N/A (Circle One)

Storage/Handling/Transportation Protect against UV light, wrap in aluminum foil; cool to 0˚C.

Comments: _____

_____

_____

PRE- AND POST-PUMP CALIBRATION DATA
ELECTRONIC PRIMARY FLOW CALIBRATION

Calibrator Type:_____Serial Number:_____Primary Calibration Date:_____

Date	Media	Flow Cell Volume (ml)	Flow Rate 1	Flow Rate 2	Flow Rate 3	Average Flow Rate	Initials

WORKER ACTIVITY LOG

TEST HOUR	TASK(S)	0,1,2,3,4	PLANT LOCATION(S)
1			
	Weather:		
2			
	Weather:		
3			

TEST HOUR	TASK(S)	0,1,2,3,4	PLANT LOCATION(S)
	Weather:		
4			
	Weather:		
5			
	Weather:		
6			

TEST HOUR	TASK(S)	0,1,2,3,4	PLANT LOCATION(S)
	Weather:		
7			
	Weather:		
8			
	Weather:		

TETRA TECH, INC.

AIR SAMPLE LOG SHEET

Project Name: Lockheed Martin Middle River Complex Project Number: 112IC05953

Sample Date: _____ Sampler: Tom Dickson

Instrument Type: Personal Air Sampling Pump Required Flow rate: 2.5 Lpm

Analytical Method No.: NIOSH 7500 Analyte(s): Crystalline Silica - 14808-60-7 (quartz);

14464-46-1 (cristobalite); 15468-32-3 (tridymite)

Analytical Technique: Gravimetric analysis/ X-ray Powder Diffraction (XRD)

Sample Media: 37mm 5µ, 3pc PVC Cassette; Aluminum Cyclone Pre-tare Weight: _____

Tetra Tech Sample No.: _____ Lab Sample No.: _____

Regulatory Authority			
OSHA	quartz (respirable) 10 mg/m^3/ (%SiO2+2);	Cristobalite (respirable) 10 mg/m^3/ (%SiO2+2)	Tridymite (respirable) 5 mg/m^3/ (%SiO2+2)
NIOSH	0.05 mg/m^3 Mixture		
ACGIH	quartz (respirable) 0.1 mg/m^3/ (%SiO2+2);	Cristobalite (respirable) 0.05 mg/m^3/ (%SiO2+2)	Tridymite (respirable) 0.05 mg/m^3/ (%SiO2+2)

PUMP status/CALIBRATION DATA/Flow rate Confirmation

Calibrator Type: _____ Serial Number: _____ Primary Calibration Date: _____

Time/Flow Rate 1	Time/Flow Rate 2	Time/Flow Rate 3	Time/Flow Rate 4	Time/Flow Rate 5	Avg. Flow Rate	Initials

Sample Information

Sample Time On:_____ Sample Time Off:_____ Elapsed Time (minutes):_____

Elapsed Time (minutes):_____ X _____ (Avg. Flow Rate) = _____ Air Volume Sampled:_____ liters

Worker or Area Sampled:_____ Social Security No. (Last four):_____

Location or Process: _____

Job Description:_____

_____

Comments: _____

_____

Sample Management Information

Filter Cassettes/Tubes Labeled and Sealed: ☒ Yes ☐ No ☐ NA

Storage/Handling/Transportation: Samples Chilled: ☐ Yes ☐ No ☐ NA

Chain of Custody Contained in the Sample Shipment Container: ☒ Yes ☐ No ☐ NA

Laboratory notified of sample shipment: ☒ Yes ☐ No ☐ NA

Comments:_____

_____

_____

_____

WORKER ACTIVITY LOG

TEST HOUR	TASK(S)	*	LOCATION(S)
1			
2			
3			

TEST HOUR	TASK(S)	*	LOCATION(S)
4			
5			
6			

TEST HOUR	TASK(S)	*	LOCATION(S)
7			
8			

Tetra Tech, Inc. Multi-Air Sample Log Sheet

Project Name: Lockheed Martin, Middle River Complex **Project Number:** 112IC05956

NIOSH #	Media	Lab Identification	Pre-weight (mg)	Sample Identification	Pump ID	Date	Start Time	Stop Time	Total Minutes	Flow Rate (lpm)	Total Volume (L)
7500	1		NA		Gil Air 5 TA 127						

Calibration: Type:_____ Serial #:_____ Flow Cell Capacity: 5-500ml Flow rate: Pre = _____ /Post = _____ Avg= Initials:_____

Comments: SILICA, CRYSTALLINE, by XRD (filter redeposition); CYCLONE + FILTER (10-mm nylon cyclone, Higgins-Dewell (HD) cyclone, or aluminum cyclone + 5-:m PVC membrane);Nylon cyclone: 1.7 L/min; HD cyclone: 2.2 L/min; aluminum cyclone: 2.5 L/min

NIOSH #	Media	Lab Identification	Pre-weight (mg)	Sample Identification	Pump ID	Date	Start Time	Stop Time	Total Minutes	Flow Rate (lpm)	Total Volume (L)
7500	1		NA		Gil Air 5 TA 127						

Calibration: Type:_____ Serial #:_____ Flow Cell Capacity: 5-500ml Flow rate: Pre = _____ /Post _____ Avg= _____ Initials:_____

Comments: SILICA, CRYSTALLINE, by XRD (filter redeposition); CYCLONE + FILTER (10-mm nylon cyclone, Higgins-Dewell (HD) cyclone, or aluminum cyclone + 5-:m PVC membrane);Nylon cyclone: 1.7 L/min; HD cyclone: 2.2 L/min; aluminum cyclone: 2.5 L/min

NIOSH #	**Media**	**Lab Identification**	**Pre-weight (mg)**	**Sample Identification**	**Pump ID**	**Date**	**Start Time**	**Stop Time**	**Total Minutes**	**Flow Rate (lpm)**	**Total Volume (L)**
7500	1		NA		Gil Air 5 TA 127						

Calibration: Type: NA Serial #: NA Flow Cell Capacity: NA Flow rate: Pre = /Post = Avg= Initials:

Comments: SILICA, CRYSTALLINE, by XRD (filter redeposition); CYCLONE + FILTER (10-mm nylon cyclone, Higgins-Dewell (HD) cyclone, or aluminum cyclone + 5-:m PVC membrane);Nylon cyclone: 1.7 L/min; HD cyclone: 2.2 L/min; aluminum cyclone: 2.5 L/min

7500	1		NA		Gil Air 5 TA 127						

Calibration: Type: Serial #: Flow Cell Capacity: 5-500ml Flow rate: Pre = /Post = Avg= Initials:

Comments: SILICA, CRYSTALLINE, by XRD (filter redeposition); CYCLONE + FILTER (10-mm nylon cyclone, Higgins-Dewell (HD) cyclone, or aluminum cyclone + 5-:m PVC membrane);Nylon cyclone: 1.7 L/min; HD cyclone: 2.2 L/min; aluminum cyclone: 2.5 L/min

NIOSH #	Media	Lab Identification	Pre-weight	Sample Identification	Pump ID	Date	Start Time	Stop Time	Total Minutes	Flow Rate (lpm)	Total Volume (L)

NIOSH #	Media	Lab Identification	Pre-weight (mg)	Sample Identification	Pump ID	Date	Start Time	Stop Time	Total Minutes	Flow Rate (lpm)	Total Volume (L)
			(mg)								
5506 PAHs	2		NA		Gil Air 5						

Calibration: Type: Bios Defender 510 Serial #: _____ Flow Cell Capacity: 5-500ml Flow rate: Pre = _____ /Post = _____ Avg= _____ Initials: _____

Comments: **POLYNUCLEAR AROMATIC HYDROCARBONS by HPLC;** FILTER + SORBENT TUBE (37-mm, 2-µm, PTFE + washed XAD-2, 100 mg/50 mg); **FLOW RATE:** 2 L/min; **VOL-MIN:** 200 L/ VOL-**MAX:** 1000 L; **SHIPMENT:** transfer filters to culture tubes; wrap sorbent and culture tubes in Al foil; ship @ 0˚C; **SAMPLE STABILITY**: unknown; protect from heat and UV light.

5506 PAHs	2		NA		Gil Air 5						

Calibration: Type: Bios Defender 510 Serial #: _____ Flow Cell Capacity: 5-500ml Flow rate: Pre = _____ /Post = _____ Avg= _____ Initials: _____

Comments: **POLYNUCLEAR AROMATIC HYDROCARBONS by HPLC;** FILTER + SORBENT TUBE (37-mm, 2-µm, PTFE + washed XAD-2, 100 mg/50 mg); **FLOW RATE:** 2 L/min; **VOL-MIN:** 200 L/ VOL-**MAX:** 1000 L; **SHIPMENT:** transfer filters to culture tubes; wrap sorbent and culture tubes in Al foil; ship @ 0˚C; **SAMPLE STABILITY**: unknown; protect from heat and UV light.

5506 PAHs	2		NA		Gil Air 5						

Calibration: Type: Bios Defender 510 Serial #: _____ Flow Cell Capacity: 5-500ml Flow rate: Pre = _____ /Post = _____ Avg= _____ Initials: _____

NIOSH #	Media	Lab Identification	Pre-weight (mg)	Sample Identification	Pump ID	Date	Start Time	Stop Time	Total Minutes	Flow Rate (lpm)	Total Volume (L)
Comments: **POLYNUCLEAR AROMATIC HYDROCARBONS by HPLC;** FILTER + SORBENT TUBE (37-mm, 2-µm, PTFE + washed XAD-2, 100 mg/50 mg); **FLOW RATE:** 2 L/min; **VOL-MIN:** 200 L/ VOL-**MAX:** 1000 L; **SHIPMENT:** transfer filters to culture tubes; wrap sorbent and culture tubes in Al foil; ship @ 0˚C; **SAMPLE STABILITY**: unknown; protect from heat and UV light.											
5506 PAHs	2		NA		Gil Air 5						

Calibration: Type: Bios Defender 510 Serial #:_____ Flow Cell Capacity: 5-500ml Flow rate: Pre = _____/Post = _____ Avg=_____ Initials:

Comments: **POLYNUCLEAR AROMATIC HYDROCARBONS by HPLC;** FILTER + SORBENT TUBE (37-mm, 2-µm, PTFE + washed XAD-2, 100 mg/50 mg); **FLOW RATE:** 2 L/min; **VOL-MIN:** 200 L/ VOL-**MAX:** 1000 L; **SHIPMENT:** transfer filters to culture tubes; wrap sorbent and culture tubes in Al foil; ship @ 0˚C; **SAMPLE STABILITY**: unknown; protect from heat and UV light.

1) 7500: Crystalline Silica: 37mm Cassette, 5µm PVC Cassette with aluminum cyclone

2) PAHs: Filter + Solid Sorbent (37mm, 2µm, PTFE = washed XAD,100 mg/50 mg)

SAMPLE LABELS (PAHs), NIOSH METHOD 5506

Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):
Sample ID:	On: Off:	Sample ID:	On: Off:
Avg Flowrate (Lpm):	Volume(L):	Avg Flowrate (Lpm):	Volume(L):

SAMPLE LABELS NIOSH METHOD 7500 CRYSTALLINE SILICA

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____ On:_____ Off:_____

Avg Flowrate (Lpm): _____ Volume(L):_____

Sample ID: _____On:_____Off:_____

Avg Flowrate (Lpm): _____Volume(L):_____

Sample ID: _____On:_____Off:_____

Avg Flowrate (Lpm): _____Volume(L):_____

APPENDIX D—TRANSPORTATION AND DISPOSAL DOCUMENTATION

IMPACTED SOIL FROM REMEDIAL ACTION

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area A								
338197	TT-BD-AA-1	D	A	I-14	J. McGill	26.33	52,660	8/6/2015
338196	TT-BD-AA-2	D	A	I-22	J. Olley	26.43	52,860	8/6/2015
338195	TT-BD-AA-3	D	A	I-18	D. Lee	27.45	54,900	8/6/2015
338194	TT-BD-AA-4	D	A	61	J. Trapp	25.04	50,080	8/6/2015
340445	TT-BD-AA-5	D	A	I-11	R. Banks	23.06	46,120	8/12/2015
340444	TT-BD-AA-6	D	A	I-15	B. Ashford	27.79	55,580	8/12/2015
340443	TT-BD-AA-7	D	A	I-10	D. Whalen	27.47	54,940	8/12/2015
340442	TT-BD-AA-8	D	A	I-21	C. Cofield	28.34	56,680	8/12/2015
340441	TT-BD-AA-9	D	A	78	M. Williams	26.7	53,400	8/12/2015
340440	TT-BD-AA-10	D	A	I-13	S. Miller	26.16	52,320	8/12/2015
340404	TT-BD-AA-11	D	A	I-11	B. Banks	21.57	43,140	8/13/2015
340403	TT-BD-AA-12	D	A	I-17	J. Thompson	27.5	55,000	8/13/2015
340402	TT-BD-AA-13	D	A	I-10	D. Whalen	25.35	50,700	8/13/2015
					Subtotal	339.19	678,380	
Block D Area B								
338211	TT-BD-AB-1	D	B	I-15	B. Ashford	25.96	51,920	8/6/2015
338210	TT-BD-AB-2	D	B	I-23	J. McClimmons	25.65	51,300	8/6/2015
338209	TT-BD-AB-3	D	B	83	J. Harrell	22.58	45,160	8/6/2015
338208	TT-BD-AB-4	D	B	78	M. Williams	26.11	52,220	8/6/2015
338207	TT-BD-AB-5	D	B	I-7	C. Wallace	21.38	42,760	8/6/2015
338206	TT-BD-AB-6	D	B	I-14	J. McGill	27.05	54,100	8/6/2015
338205	TT-BD-AB-7	D	B	I-22	J. Olley	26.98	53,960	8/6/2015
338204	TT-BD-AB-8	D	B	I-18	D. Lee	27.85	55,700	8/6/2015
338203	TT-BD-AB-9	D	B	61	J. Trapp	24.41	48,820	8/6/2015
338202	TT-BD-AB-10	D	B	I-15	B. Ashford	22.31	44,620	8/6/2015
338201	TT-BD-AB-11	D	B	83	J. Harrell	22.78	45,560	8/6/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area B (Continued)								
338200	TT-BD-AB-12	D	B	I-7	C. Wallace	23.54	47,080	8/6/2015
338199	TT-BD-AB-13	D	B	I-23	J. McClimmons	23.91	47,820	8/6/2015
338198	TT-BD-AB-14	D	B	78	M. Williams	20.83	41,660	8/6/2015
					Subtotal	341.34	682,680	
Block D Area C								
340439	TT-BD-AC-1	D	C	I-3	A. Olney	23.56	47,120.0	8/12/2015
340438	TT-BD-AC-2	D	C	I-6	J. Onley	26.51	53,020.0	8/12/2015
340437	TT-BD-AC-3	D	C	I-4	Bacon	27.86	55,720.0	8/12/2015
340436	TT-BD-AC-4	D	C	I-20	T. Tucker	23.92	47,840.0	8/12/2015
340435	TT-BD-AC-5	D	C	I-22	J. Olley	26.14	52,280.0	8/12/2015
340434	TT-BD-AC-6	D	C	I-7	C. Wallace	25.87	51,740.0	8/12/2015
340433	TT-BD-AC-7	D	C	83	J. Harrell	23.34	46,680.0	8/12/2015
340432	TT-BD-AC-8	D	C	I-14	J. McGill	25.61	51,220.0	8/12/2015
340431	TT-BD-AC-9	D	C	61	J. Trapp	24.04	48,080.0	8/12/2015
340430	TT-BD-AC-10	D	C	I-11	R. Banks	26.52	53,040.0	8/12/2015
340429	TT-BD-AC-11	D	C	I-15	B. Ashford	23.53	47,060.0	8/12/2015
340428	TT-BD-AC-12	D	C	I-10	D. Whalen	24.23	48,460.0	8/12/2015
340425	TT-BD-AC-13	D	C	I-21	C. Cofield	27.84	55,680.0	8/12/2015
340427	TT-BD-AC-14	D	C	I-13	S. Miller	26.16	52,320.0	8/12/2015
340426	TT-BD-AC-15	D	C	I-3	A. Onley	27.38	54,760.0	8/12/2015
340424	TT-BD-AC-16	D	C	I-6	J. Onley	28.68	57,360.0	8/12/2015
					Subtotal	411.19	822,380.0	
Block D Area D								
340268	TT-BF-AD-1	D	D	I-20	T. Tucker	25.11	50,220.0	8/25/2015
340267	TT-BF-AD-2	D	D	I-22	J. Olley	27.24	54,480.0	8/25/2015
340265	TT-BF-AD-3	D	D	I-8	W. Burnette	22.62	45,240.0	8/25/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area D (Continued)								
340266	TT-BF-AD-4	D	D	83	J. Harrell	21.42	42,840.0	8/25/2015
340264	TT-BD-AD-05	D	D	T-1	T. Meadows	25.91	51,820.0	8/25/2015
340263	TT-BD-AD-06	D	D	78	M. Williams	25.42	50,840.0	8/25/2015
					Subtotal	147.72	295,440.0	
Block D Area E								
340423	TT-BD-AE-1	D	E	78	M. Williams	21.56	43,120.0	8/12/2015
340422	TT-BD-AE-2	D	E	I-20	T. Tucker	24.5	49,000.0	8/12/2015
340421	TT-BD-AE-3	D	E	I-14	J. McGill	22.85	45,700.0	8/12/2015
340420	TT-BD-AE-4	D	E	I-12	J. Olley	24.43	48,860.0	8/12/2015
340419	TT-BD-AE-5	D	E	I-7	C. Wallace	25.58	51,160.0	8/12/2015
340418	TT-BD-AE-6	D	E	I-17	J. Thompson	27.7	55,400.0	8/13/2015
340417	TT-BD-AE-7	D	E	I-11	R. Banks	23.05	46,100.0	8/13/2015
340416	TT-BD-AE-8	D	E	I-18	C. Cofield	23.23	46,460.0	8/13/2015
340415	TT-BD-AE-9	D	E	I-4	Bacon	26.33	52,660.0	8/13/2015
340414	TT-BD-AE-10	D	E	I-10	D. Whalen	23.95	47,900.0	8/13/2015
340413	TT-BD-AE-11	D	E	I-3	A. Onley	25.36	50,720.0	8/13/2015
340412	TT-BD-AE-12	D	E	I-6	J. Onley	28.67	57,340.0	8/13/2015
340411	TT-BD-AE-13	D	E	I-20	T. Tucker	24.32	48,640.0	8/13/2015
340410	TT-BD-AE-14	D	E	I-15	B. Ashford	26.5	53,000.0	8/13/2015
340409	TT-BD-AE-15	D	E	I-13	S. Miller	24.83	49,660.0	8/13/2015
					Subtotal	372.86	745,720.0	
Block D Area F/F1								
340408	TT-BD-AF-1	D	F	I-14	J. McGill	24.23	48,460.0	8/13/2015
340407	TT-BD-AF-2	D	F	I-22	J. Olley	23.67	47,340.0	8/13/2015
340406	TT-BD-AF-3	D	F	I-2	B. Banks	22.62	45,240.0	8/13/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area F/F1 (Continued)								
340405	TT-BD-AF-4	D	F	I-8	W. Burnette	29.81	59,620.0	8/13/2015
340401	TT-BD-AF-5	D	F	I-4	A. Bacon	24.63	49,260.0	8/13/2015
340400	TT-BD-AF-6	D	F	I-15	B. Ashford	24.23	48,460.0	8/13/2015
340399	TT-BD-AF-7	D	F	I-3	A. Onley	27.19	54,380.0	8/13/2015
340398	TT-BD-AF-8	D	F	I-20	T. Tucker	26.14	52,280.0	8/13/2015
340397	TT-BD-AF-9	D	F	I-13	S. Miller	24.14	48,280.0	8/13/2015
340396	TT-BD-AF-10	D	F	I-14	J. Olney	28.03	56,060.0	8/13/2015
340395	TT-BD-AF-11	D	F	I-22	J. McGill	23.81	47,620.0	8/13/2015
340394	TT-BD-AF-12	D	F	I-2	J. Olley	22.69	45,380.0	8/13/2015
340393	TT-BD-AF-13	D	F	I-5	B. Banks	23.63	47,260.0	8/13/2015
340392	TT-BD-AF-14	D	F	I-15	R. Crooks	26.40	52,800.0	8/13/2015
340391	TT-BD-AF-15	D	F	I-8	W. Burnette	26.49	52,980.0	8/13/2015
340390	TT-BD-AF-16	D	F	I-15	B. Ashford	25.38	50,760.0	8/14/2015
340389	TT-BD-AF-17	D	F	I-8	W. Burnette	22.15	44,300.0	8/14/2015
340388	TT-BD-AF-18	D	F	I-7	C. Wallace	25.15	50,300.0	8/14/2015
340387	TT-BD-AF-19	D	F	I-12	D. Wiggs	24.18	48,360.0	8/14/2015
340386	TT-BD-AF-20	D	F	78	M. Williams	25.06	50,120.0	8/14/2015
340385	TT-BD-AF-21	D	F	I-10	D. Whalen	24.33	48,660.0	8/14/2015
340384	TT-BD-AF-22	D	F	I-4	A. Bacon	20.09	40,180.0	8/14/2015
340383	TT-BD-AF-23	D	F	I-5	R. Crook	21.54	43,080.0	8/14/2015
340382	TT-BD-AF-24	D	F	I-9	M. Anderson	22.42	44,840.0	8/14/2015
340381	TT-BD-AF-25	D	F	I-2	B. Banks	22.49	44,980.0	8/14/2015
340380	TT-BD-AF-26	D	F	I-3	J. Olley	21.90	43,800.0	8/14/2015
340379	TT-BD-AF-27	D	F	I-20	T. Tucker	24.80	49,600.0	8/14/2015
340378	TT-BD-AF-28	D	F	I-17	J. Thompson	25.83	51,660.0	8/14/2015
340377	TT-BD-AF-29	D	F	83	J. Harrell	23.62	47,240.0	8/14/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area F/F1 (Continued)								
340376	TT-BD-AF-30	D	F	I-15	B. Ashford	25.53	51,060.0	8/14/2015
340375	TT-BD-AF-31	D	F	I-12	D. Wiggs	21.55	43,100.0	8/14/2015
340374	TT-BD-AF-34	D	F	I-4	A. Bacon	26.36	52,720.0	8/14/2015
340373	TT-BD-AF-32	D	F	I-5	R. Crook	23.34	46,680.0	8/14/2015
340372	TT-BD-AF-33	D	F	I-8	W. Burnette	28.58	57,160.0	8/14/2015
340371	TT-BD-AF-35	D	F	I-7	C. Wallace	26.66	53,320.0	8/14/2015
340370	TT-BD-AF-36	D	F	I-9	M. Anderson	25.17	50,340.0	8/14/2015
340369	TT-BD-AF-37	D	F	78	M. Williams	23.35	46,700.0	8/14/2015
340368	TT-BD-AF-38	D	F	I-20	T. Tucker	23.63	47,260.0	8/14/2015
340367	TT-BD-AF-39	D	F	I-10	D. Whalen	27.14	54,280.0	8/14/2015
340366	TT-BD-AF-40	D	F	I-17	J. Thompson	27.99	55,980.0	8/14/2015
340365	TT-BD-AF-41	D	F	PG-2	J. Covington	27.69	55,380.0	8/14/2015
340364	TT-BD-AF-42	D	F	I-2	B. Banks	28.24	56,480.0	8/14/2015
340363	TT-BD-AF-43	D	F	I-22	J. Olley	24.73	49,460.0	8/14/2015
340311	TT-BD-AF-44	D	F	I-11	R. Banks	24.42	48,840.0	8/19/2015
340306	TT-BD-AF-45	D	F	I-18	C. Cofield	24.63	49,260.0	8/19/2015
340303	TT-BD-AF-46	D	F	I-4	A. Bacon	27.06	54,120.0	8/19/2015
340305	TT-BD-AF-47	D	F	I-5	R. Crook	22.93	45,860.0	8/19/2015
340307	TT-BD-AF-48	D	F	I-12	D. Wiggs	22.95	45,900.0	8/19/2015
340308	TT-BD-AF-49	D	F	I-10	D. Whalen	26.24	52,480.0	8/19/2015
340304	TT-BD-AF-50	D	F	I-6	J. Onley	27.24	54,480.0	8/19/2015
340314	TT-BD-AF-51	D	F	I-13	S. Miller	24.61	49,220.0	8/19/2015
340302	TT-BD-AF-52	D	F	I-8	W. Burnette	28.53	57,060.0	8/19/2015
340309	TT-BD-AF-53	D	F	I-23	McCloines	23.56	47,120.0	8/19/2015
340312	TT-BD-AF-54	D	F	78	M. Williams	22.82	45,640.0	8/19/2015
340310	TT-BD-AF-55	D	F	83	J. Harrell	26.76	53,520.0	8/19/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area F/F1 (Continued)								
340313	TT-BD-AF-56	D	F	I-14	J. McGill	25.68	51,360.0	8/19/2015
340316	TT-BD-AF-57	D	F	I-7	C. Wallace	20.32	40,640.0	8/19/2015
340315	TT-BD-AF-58	D	F	61	J. Trapp	25.53	51,060.0	8/19/2015
340318	TT-BD-AF-59	D	F	I-11	R. Banks	24.42	48,840.0	8/19/2015
340319	TT-BD-AF-60	D	F	I-4	A. Bacon	28.23	56,460.0	8/19/2015
340320	TT-BD-AF-61	D	F	I-5	R. Crook	25.05	50,100.0	8/19/2015
340321	TT-BD-AF-62	D	F	I-10	D. Whalen	30.22	60,440.0	8/19/2015
340322	TT-BD-AF-63	D	F	I-12	D. Wiggs	24.74	49,480.0	8/19/2015
340323	TT-BD-AF-64	D	F	I-13	S. Miller	26.08	52,160.0	8/19/2015
340324	TT-BD-AF-65	D	F	I-8	W. Burnette	26.55	53,100.0	8/19/2015
340325	TT-BD-AF-66	D	F	I-23	McCloines	26.07	52,140.0	8/19/2015
340326	TT-BD-AF-67	D	F	I-6	J. Onley	25.01	50,020.0	8/19/2015
340327	TT-BD-AF-68	D	F	78	M. Williams	24.69	49,380.0	8/19/2015
340328	TT-BD-AF-69	D	F	I-7	C. Wallace	27.24	54,480.0	8/19/2015
340329	TT-BD-AF-70	D	F	I-14	J. McGill	24.01	48,020.0	8/19/2015
340330	TT-BD-AF-71	D	F	83	J. Harrell	24.71	49,420.0	8/19/2015
340317	TT-BD-AF-72	D	F	61	J. Trapp	24.74	49,480.0	8/19/2015
340331	TT-BD-AF-73	D	F	I-11	R. Banks	26.43	52,860.0	8/24/2015
340332	TT-BD-AF-74	D	F	I-4	A. Bacon	26.63	53,260.0	8/24/2015
340333	TT-BD-AF-75	D	F	I-5	R. Crook	26.76	53,520.0	8/24/2015
340334	TT-BD-AF-76	D	F	I-9	M. Anderson	25.99	51,980.0	8/24/2015
340335	TT-BD-AF-77	D	F	I-18	C. Cofield	27.80	55,600.0	8/24/2015
340336	TT-BD-AF-78	D	F	I-20	T. Tucker	23.57	47,140.0	8/24/2015
340337	TT-BD-AF-79	D	F	I-3	A. Onley	25.16	50,320.0	8/24/2015
340338	TT-BD-AF-80	D	F	I-6	J. Onley	27.41	54,820.0	8/24/2015
340339	TT-BD-AF-81	D	F	J-1	M. Chase	27.16	54,320.0	8/24/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area F/F1 (Continued)								
340340	TT-BD-AF-82	D	F	7	M. McGraw	25.24	50,480.0	8/24/2015
340341	TT-BD-AF-83	D	F	I-2	B. Banks	25.59	51,180.0	8/24/2015
340342	TT-BD-AF-84	D	F	I-7	C. Wallace	24.99	49,980.0	8/24/2015
340344	TT-BD-AF-85	D	F	I-15	B. Ashford	25.48	50,960.0	8/24/2015
340345	TT-BD-AF-86	D	F	T-1	T. Meadows	27.19	54,380.0	8/24/2015
340346	TT-BD-AF-87	D	F	I-8	W. Burnette	19.72	39,440.0	8/24/2015
340343	TT-BD-AF-88	D	F	61	J. Trapp	21.87	43,740.0	8/24/2015
340347	TT-BD-AF-89	D	F	78	M. Williams	25.55	51,100.0	8/24/2015
340348	TT-BD-AF-90	D	F	I-11	R. Banks	22.49	44,980.0	8/24/2015
340349	TT-BD-AF-91	D	F	I-9	M. Anderson	26.71	53,420.0	8/24/2015
340350	TT-BD-AF-92	D	F	I-4	A. Bacon	25.87	51,740.0	8/24/2015
340351	TT-BD-AF-93	D	F	I-5	R. Crook	22.53	45,060.0	8/24/2015
340352	TT-BD-AF-94	D	F	I-3	A. Onley	28.36	56,720.0	8/24/2015
340353	TT-BD-AF-95	D	F	I-6	J. Onley	26.09	52,180.0	8/24/2015
340354	TT-BD-AF-96	D	F	I-20	T. Tucker	25.13	50,260.0	8/24/2015
340355	TT-BD-AF-97	D	F	J-1	M. Chase	26.89	53,780.0	8/24/2015
340356	TT-BD-AF-98	D	F	I-15	B. Ashford	23.39	46,780.0	8/24/2015
340357	TT-BD-AF-99	D	F	I-7	C. Wallace	24.37	48,740.0	8/24/2015
340358	TT-BD-AF-100	D	F	I-2	B. Banks	23.59	47,180.0	8/24/2015
340359	TT-BD-AF-101	D	F	7	J. McGraw	24.20	48,400.0	8/24/2015
340360	TT-BD-AF-102	D	F	T-1	T. Meadows	28.37	56,740.0	8/24/2015
340361	TT-BD-AF-103	D	F	I-8	W. Burnette	26.88	53,760.0	8/24/2015
340362	TT-BD-AF-104	D	F	I-18	C. Cofield	21.12	42,240.0	8/24/2015
340300	TT-BD-AF-105	D	F	78	M. Williams	25.00	50,000.0	8/24/2015
340301	TT-BD-AF-106	D	F	61	J. Trapp	24.77	49,540.0	8/24/2015
340299	TT-BD-AF-107	D	F	I-11	R. Banks	24.74	49,480.0	8/25/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area F/F1 (Continued)								
340298	TT-BD-AF-108	D	F	I-9	M. Anderson	25.96	51,920.0	8/25/2015
340297	TT-BD-AF-109	D	F	I-4	A. Bacon	26.58	53,160.0	8/25/2015
340296	TT-BD-AF-110	D	F	I-12	D. Wiggs	25.43	50,860.0	8/25/2015
340295	TT-BD-AF-111	D	F	I-23	J. McClowns	24.13	48,260.0	8/25/2015
340294	TT-BD-AF-112	D	F	I-6	J. Olney	25.65	51,300.0	8/25/2015
340293	TT-BD-AF-113	D	F	E-1	T. Nelson	19.26	38,520.0	8/25/2015
340292	TT-BD-AF-114	D	F	I-15	B. Ashford	25.81	51,620.0	8/25/2015
340291	TT-BD-AF-115	D	F	T-1	M. Chase	26.24	52,480.0	8/25/2015
340290	TT-BD-AF-116	D	F	I-18	C. Cofield	24.02	48,040.0	8/25/2015
340289	TT-BD-AF-117	D	F	7	J. McGraw	25.22	50,440.0	8/25/2015
340288	TT-BD-AF-118	D	F	I-13	S. Miller	23.04	46,080.0	8/25/2015
340287	TT-BD-AF-119	D	F	I-20	T. Tucker	25.48	50,960.0	8/25/2015
340286	TT-BD-AF-120	D	F	I-22	J. Olley	26.61	53,220.0	8/25/2015
340285	TT-BD-AF-121	D	F	T-1	T. Meadows	22.33	44,660.0	8/25/2015
340284	TT-BD-AF-122	D	F	83	J. Harrell	22.19	44,380.0	8/25/2015
340283	TT-BD-AF-123	D	F	I-8	W. Burnette	27.79	55,580.0	8/25/2015
340282	TT-BD-AF-124	D	F	78	M. Williams	22.99	45,980.0	8/25/2015
340281	TT-BD-AF-125	D	F	I-11	R. Banks	23.28	46,560.0	8/25/2015
340280	TT-BD-AF-126	D	F	I-9	M. Anderson	22.92	45,840.0	8/25/2015
340279	TT-BD-AF-127	D	F	I-4	A. Bacon	25.01	50,020.0	8/25/2015
340278	TT-BD-AF-128	D	F	I-12	D. Wiggs	27.46	54,920.0	8/25/2015
340277	TT-BD-AF-129	D	F	I-15	B. Ashford	22.05	44,100.0	8/25/2015
340276	TT-BD-AF-130	D	F	I-23	J. McCloines	27.76	55,520.0	8/25/2015
340275	TT-BD-AF-131	D	F	D-7	D. Lynch	27.66	55,320.0	8/25/2015
340274	TT-BD-AF-132	D	F	I-6	J. Olney	26.57	53,140.0	8/25/2015
340273	TT-BD-AF-133	D	F	7	J. McGraw	23.76	47,520.0	8/25/2015

Manifest Tracking Sheet
Soil Remedial Action - Block D
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Manifest Number	Area Tracking Number	Block	Area	Truck Number	Driver	Net Weight (tons)	Net Weight (pounds)	Date
Block D Area F/F1 (Continued)								
340272	TT-BD-AF-134	D	F	J-1	M. Chase	23.44	46,880.0	8/25/2015
340271	TT-BD-AF-135	D	F	I-18	C. Cofield	23.02	46,040.0	8/25/2015
340270	TT-BD-AF-136	D	F	I-13	S. Miller	22.06	44,120.0	8/25/2015
340269	TT-BD-AF-137	D	F	E-1	T. Nelson	16.92	33,840.0	8/25/2015
					Subtotal	3415.33	6,830,660.0	
					Block D Total=	**5,027.63**	**10,055,260**	

Note: Block D Waste Approval # W5-4105

Soil Safe

Material Characterization Report
Brandywine, Maryland

Please complete all sections of the form, sign where indicated and return completed form to:

Soil Safe, Inc.
6700 Alexander Bell Dr., Suite 300, Columbia MD 21046
Phone: 410 872-3990 Fax: 410 872-9082

Project Information

Site Name: Lockheed Martin Middle River

Address: 195 Chesapeake Park Plaza Road

City, State Zip: Middle River, MD 21220 | County: Baltimore

Contact: Mike Musheno

Phone: 610-656-4012 | Fax: 410-682-0854

Approximate Quantity: 1600 - Tax Block F

Unit of Measure: (Check One) ☐ Drums ☑ Tons ☐ Yards

Type of Contamination: ☑ Gasoline ☑ Diesel ☐ Fuel Oil ☐ Hydraulic Oil ☐ Heating Oil ☐ Kerosene ☐ Jet Fuel ☑ Motor Oil ☑ Used Oil

☑ Other (explain):

Contamination Source: ☐ UST ☐ AST ☐ Spill ☑ Historic

Other (explain): PAHs

Past Use of Site: ☑ Industrial ☐ Commercial ☐ Residential

Describe Past Use of Site: Currently vehicle parking and equipment storage, former WWTP and wind tunnel.

Client Information

I, the undersigned, understand that any soil delivered to Soil Safe's facility that is found to be non-conforming will not be accepted for processing. I further understand that the Client shall be solely responsible for its removal. In the event that the Client does not remove the soils in a timely manner, Soil Safe, acting as agent for the Client, may arrange to have the soil removed and disposed of at a properly permitted facility at the Client's sole expense.

I, the undersigned, Certify that, to the best of my knowledge, the soil submitted for acceptance to Soil Safe does not contain Polychlorinated Biphenyl's (PCB's), as defined by 40 CFR761, at levels greater than 5 ppm. I further certify that, to the best of my knowledge, the soil does not contain herbicides, pesticides, or any other constituents at levels which would cause the soil to be characterized as toxic or hazardous as defined by 40 CFR 261. I further certify that all documentation, including all soil analysis, that has been performed on the subject site has been provided to Soil Safe and that the soils have not been or are not presently the focus of a remediation for contaminants other than those that are being disclosed to Soil Safe, Inc.

I, the undersigned, am the generator or a properly authorized agent for the generator. By signing below I certify that I have been granted the authority to execute this document.

Print Name: Tom Blackman

Title: Project Lead

Company: Lockheed Martin Corp

Signature: [signature]

June 23, 2015

Soil Safe

Material Characterization Report
Brandywine, Maryland

Page 2 of 3

The Brandywine Facility requires the following analysis for approval of material into the facility.

Analysis	Method	Acceptance Criteria
TPH – As appropriate for the type of contamination	8015 / 9071B	Less than 25,000 ppm
BTEX	By an EPA Approved Method	Less than 500 ppm
PCB's	8082	Less than 5 ppm
TCLP Metals *Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver*	1311/6010	Less than RCRA

Note: Other tests may be required depending on type of contamination. Soil not specifically exempted under 40CFR261.4 (b) (10) will require a Full TCLP List instead of TCLP Metals.

- Analytical requirements can be reduced if both of the following conditions are met:
  - A. Soils are impacted with only virgin oil(s).
  - B. One of the following Reduced Analytical Documents is provided:
    (check the applicable document provided)
    - ☐ MDE UST document completed by MDE Representative
    - ☐ Another Maryland document or form completed by a Department Representative
    - ☐ An MDE equivalent document from another State
    - ☐ Spill response document completed by or for a Government Agency
    - ☐ A UST document completed by a Soil Safe Employee
    - ☐ Single family home affidavit
    - ☐ Commercial transportation spill affidavit

- Reduced analytical are:
  - A. BTEX
  - B. TPH – As appropriate for the type of oil that was discharged.

Site Diagram (please sketch or attach drawing showing source of spill on project site)

Sample and Analysis Certification

★ I certify that soils were sampled as noted above and the results are representative of the stated volume to be shipped to Soil Safe, Inc.

Signature: [signature] June 23, 2015

Material Characterization Report
Brandywine, Maryland

Chain of Payment

The information below must be provided for billing purposes and is required for project approval.

Instructions
In order, starting with the generator and ending with Billing Company please provide the chain of payment for the project that you wish to have approved for acceptance by Soil Safe. Please contact Soil Safe with any questions you may have.

Generator Information

Generator: Lockheed Martin Corp
Contact: Mike Musheno
Address: 195 Chesapeake Park Plaza Road
City, State Zip: Middle River, MD 21220
Phone: 610-656-4012
Fax: 410-682-0854

Company: _____
Contact: _____
Address: _____
City, State Zip: _____
Phone: _____
Fax: _____

Company: _____
Contact: _____
Address: _____
City, State Zip: _____
Phone: _____
Fax: _____

*If additional space is needed, please attach a separate sheet providing the information requested.

Billing Information

Company: Elite Environmental
Contact: Kenneth Trent
Address: 1814 Turkey Point Road
City, State Zip: Baltimore, MD 21901
Phone: (877) 202-4448
Fax: _____

Chain of Payment Certification

I, the undersigned verify that the information provided above is true and accurate. The information is complete and follows the Chain of Payment, as it will occur upon invoice for the project. Any changes to this Chain will be reported to Soil Safe as soon as possible.

Print Name: Kenneth Trent
Title: President
Company: Elite Environmental
Signature: [signature]

SOIL SAFE INCORPORATED CERTIFICATE OF RECYCLE

Soil Safe Incorporated has accepted 446.59 tons of non-hazardous, petroleum contaminated soil, transported or 18 truck(s) from:

195 Chesapeake Park Plaza Road
Middle River MD 21220

Under approval number W5-4105 and billed under invoice # 67456

This material was contracted by and between Soil Safe, Inc. and
Elite Environmental Broker, Generator, or Agent, representing
Lockheed Martin Middle River , generator.

This material was analyzed prior to acceptance by a certified soils technician to determine soil components and specific product usage. Soil Safe Incorporated has taken full responsibility for this material: including safe handling, processing, storage, and reuse. We hereby certify that all of the above was executed in accordance with all existing laws and regulations.

Soil Safe certified on 14 January 2016 that this material has been recycled into an environmentally benign product.

State of Maryland
My commission expires December 7, 2018
As sworn to me this 14 January 2016

Notary

CERTIFICATE ISSUED TO:
Elite Environmental
P.O. Box 615
Cape Canavarel FL 32920

GENERATOR:

Lockheed Martin Middle River

Soil Safe Incorporated is a corporation committed to the safe handling, processing and recycling of non-hazardous petroleum contaminated soil.

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SOIL SAFE INCORPORATED
CERTIFICATE OF RECYCLE

Soil Safe Incorporated has accepted 2,085.13 tons of non-hazardous, petroleum contaminated soil, transported or 83 truck(s) from:

195 Chesapeake Park Plaza Road
Middle River MD 21220

Under approval number W5-4105 and billed under invoice # 67491

This material was contracted by and between Soil Safe, Inc. and
Elite Environmental Broker, Generator, or Agent, representing
Lockheed Martin Middle River , generator.

This material was analyzed prior to acceptance by a certified soils technician to determine soil components and specific product usage. Soil Safe Incorporated has taken full responsibility for this material: including safe handling, processing, storage, and reuse. We hereby certify that all of the above was executed in accordance with all existing laws and regulations.

Soil Safe certified on 14 January 2016 that this material has been recycled into an environmentally benign product.

State of Maryland
My commission expires December 7, 2018
As sworn to me this 14 January 2016

Notary

CERTIFICATE ISSUED TO:
Elite Environmental
P.O. Box 615
Cape Canavarel FL 32920

GENERATOR:

Lockheed Martin Middle River

Soil Safe Incorporated is a corporation committed to the safe handling, processing and recycling of non-hazardous petroleum contaminated soil.

© 2015 Great Papers

SOIL SAFE INCORPORATED
CERTIFICATE OF RECYCLE

Soil Safe Incorporated has accepted 735.04 tons of non-hazardous, petroleum contaminated soil, transported or 29 truck(s) from:

195 Chesapeake Park Plaza Road
Middle River MD 21220

Under approval number W5-4105 and billed under invoice # 67539

This material was contracted by and between Soil Safe, Inc. and
Elite Environmental Broker, Generator, or Agent, representing
Lockheed Martin Middle River , generator.

This material was analyzed prior to acceptance by a certified soils technician to determine soil components and specific product usage. Soil Safe Incorporated has taken full responsibility for this material: including safe handling, processing, storage, and reuse. We hereby certify that all of the above was executed in accordance with all existing laws and regulations.

Soil Safe certified on 14 January 2016 that this material has been recycled into an environmentally benign product.

State of Maryland
My commission expires December 7, 2018
As sworn to me this 14 January 2016

Notary

CERTIFICATE ISSUED TO:
Elite Environmental
P.O. Box 615
Cape Canavarel FL 32920

GENERATOR:

Lockheed Martin Middle River

Soil Safe Incorporated is a corporation committed to the safe handling, processing and recycling of non-hazardous petroleum contaminated soil.

© 2015 Great Papers

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SOIL SAFE INCORPORATED
CERTIFICATE OF RECYCLE

Soil Safe Incorporated has accepted 1,761.40 tons of non-hazardous, petroleum contaminated soil, transported or 71 truck(s) from:

195 Chesapeake Park Plaza Road
Middle River MD 21220

Under approval number W5-4105 and billed under invoice # 67597

This material was contracted by and between Soil Safe, Inc. and
Elite Environmental Broker, Generator, or Agent, representing
Lockheed Martin Middle River , generator.

This material was analyzed prior to acceptance by a certified soils technician to determine soil components and specific product usage. Soil Safe Incorporated has taken full responsibility for this material: including safe handling, processing, storage, and reuse. We hereby certify that all of the above was executed in accordance with all existing laws and regulations.

Soil Safe certified on 14 January 2016 that this material has been recycled into an environmentally benign product.

State of Maryland
My commission expires December 7, 2018
As sworn to me this 14 January 2016

Shawn L Day Notary

CERTIFICATE ISSUED TO:
Elite Environmental
P.O. Box 615
Cape Canavarel FL 32920

GENERATOR:

Lockheed Martin Middle River

Soil Safe Incorporated is a corporation committed to the safe handling, processing and recycling of non-hazardous petroleum contaminated soil.

Tonnages for W5-4105 by Date, Log Number

From 7/23/2015 To 8/17/2015

Date	Log #	Truck Company	Net
W5-4105			
		8/6/2015	
8/6/2015	18	ioj trucking	25.96
8/6/2015	19	TRAP	22.58
8/6/2015	20	IOJ TRUCKING	25.65
8/6/2015	21	I.O.J.	21.38
8/6/2015	22	TRAP	26.11
8/6/2015	23	IOJ TRUCKING	27.05
8/6/2015	24	IOJ	26.98
8/6/2015	25	IOJ TRUCKING	27.85
8/6/2015	26	TRAP	24.41
8/6/2015	41	TRAP	22.78
8/6/2015	42	IOJ TRUCKING	22.31
8/6/2015	43	I.O.J.	23.54
8/6/2015	48	TRAP	20.83
8/6/2015	50	ioj trucking	23.91
8/6/2015	55	IOJ	26.33
8/6/2015	57	IOJ TRUCKING	26.43
8/6/2015	59	IOJ TRUCKING	27.45
8/6/2015	60	TRAP	25.04
		Total volume for Date = 8/6/2015 (18 detail records)	446.59
		8/12/2015	
8/12/2015	17	IOJ	23.56
8/12/2015	20	ioj trucking	26.51
8/12/2015	21	I.O.J.	27.86
8/12/2015	22	IOJ TRUCKING	23.92
8/12/2015	24	IOJ	26.14
8/12/2015	27	I.O.J.	25.87
8/12/2015	29	IOJ TRUCKING	25.61
8/12/2015	30	TRAP	23.34
8/12/2015	33	I.O.J.	26.52
8/12/2015	34	IOJ TRUCKING	23.53
8/12/2015	38	IOJ TRUCKING	24.23
8/12/2015	39	IOJ	27.84
8/12/2015	40	I.O.J.	26.16
8/12/2015	41	TRAP	24.04
8/12/2015	46	TRAP	26.70
8/12/2015	61	IOJ	27.38
8/12/2015	62	ioj trucking	28.68
8/12/2015	64	IOJ TRUCKING	23.06
8/12/2015	65	I.O.J.	27.79
8/12/2015	71	IOJ	27.47
8/12/2015	76	I.O.J.	28.34
8/12/2015	79	IOJ TRUCKING	26.16

Date	Log #	Truck Company	Net
8/12/2015	86	TRAP	21.56
8/12/2015	91	IOJ TRUCKING	24.50
8/12/2015	92	I.O.J.	22.85
8/12/2015	94	IOJ	24.43
8/12/2015	95	IOJ TRUCKING	25.58
		Total volume for Date = 8/12/2015 (27 detail records)	689.63
		8/13/2015	
8/13/2015	12	IOJ TRUCKING	27.70
8/13/2015	13	IOJ	23.05
8/13/2015	14	IOJ TRUCKING	23.23
8/13/2015	15	I.O.J.	26.33
8/13/2015	16	I.O.J.	23.95
8/13/2015	17	I.O.J.	25.36
8/13/2015	18	IOJ TRUCKING	28.67
8/13/2015	19	ioj trucking	24.32
8/13/2015	20	IOJ TRUCKING	26.50
8/13/2015	23	IOJ	24.83
8/13/2015	26	IOJ	24.23
8/13/2015	28	IOJ TRUCKING	23.67
8/13/2015	30	IOJ TRUCKING	22.62
8/13/2015	32	I.O.J.	29.81
8/13/2015	37	IOJ	21.57
8/13/2015	38	IOJ TRUCKING	27.50
8/13/2015	39	I.O.J.	25.35
8/13/2015	41	ioj trucking	24.63
8/13/2015	42	I.O.J.	24.76
8/13/2015	43	IOJ	27.19
8/13/2015	46	I.O.J.	26.14
8/13/2015	47	IOJ TRUCKING	24.14
8/13/2015	48	IOJ	28.03
8/13/2015	50	IOJ TRUCKING	23.81
8/13/2015	51	IOJ TRUCKING	22.69
8/13/2015	52	I.O.J.	23.63
8/13/2015	54	IOJ TRUCKING	26.40
8/13/2015	56	I.O.J.	26.49
		Total volume for Date = 8/13/2015 (28 detail records)	706.6
		8/14/2015	
8/14/2015	10	ioj trucking	25.38
8/14/2015	12	IOJ TRUCKING	22.15
8/14/2015	13	I.O.J.	25.15
8/14/2015	14	I.O.J.	24.18
8/14/2015	15	I.O.J.	25.06
8/14/2015	16	I.O.J.	24.33
8/14/2015	20	TRAP	20.09
8/14/2015	21	I.O.J.	21.54
8/14/2015	24	IOJ TRUCKING	22.42
8/14/2015	26	I.O.J.	22.49
8/14/2015	27	IOJ TRUCKING	21.90

Date	Log #	Truck Company	Net
8/14/2015	28	IOJ TRUCKING	24.80
8/14/2015	33	IOJ TRUCKING	25.83
8/14/2015	34	TRAP	23.62
8/14/2015	39	ioj trucking	25.53
8/14/2015	47	IOJ TRUCKING	21.55
8/14/2015	50	I.O.J.	26.36
8/14/2015	51	I.O.J.	23.34
8/14/2015	52	I.O.J.	28.58
8/14/2015	57	I.O.J.	26.66
8/14/2015	61	I.O.J.	25.17
8/14/2015	67	IOJ TRUCKING	23.63
8/14/2015	69	TRAP	23.35
8/14/2015	74	I.O.J.	27.14
8/14/2015	83	IOJ TRUCKING	27.99
8/14/2015	84	PROGRESSIVE	27.69
8/14/2015	100	IOJ TRUCKING	28.24
8/14/2015	101	IOJ TRUCKING	24.73
		Total volume for Date = 8/14/2015 (28 detail records)	688.9

Total Volume for Approval Number = W5-4105 (101 detail records) 2531.72

Total Trucks: 101

Grand Total 2531.72

Tonnages for W5-4105 by Date, Log Number

From 8/17/2015 To 8/21/2015

Date	Log #	Truck Company	Net	
W5-4105				
		8/19/2015		
8/19/2015	15	IOJ	24.42	
8/19/2015	19	IOJ TRUCKING	24.63	
8/19/2015	21	I.O.J.	27.06	
8/19/2015	22	I.O.J.	22.93	
8/19/2015	23	IOJ TRUCKING	22.95	
8/19/2015	27	I.O.J.	26.24	
8/19/2015	28	IOJ TRUCKING	27.24	
8/19/2015	32	IOJ	24.61	
8/19/2015	35	I.O.J.	28.53	
8/19/2015	36	IOJ TRUCKING	23.56	
8/19/2015	38	TRAP	22.82	
8/19/2015	40	IOJ	26.76	
8/19/2015	41	I.O.J.	25.68	
8/19/2015	42	TRAP	20.32	
8/19/2015	44	TRAP	25.53	
8/19/2015	50	IOJ	24.42	
8/19/2015	51	I.O.J.	28.23	
8/19/2015	52	I.O.J.	25.05	
8/19/2015	53	I.O.J.	30.22	
8/19/2015	54	IOJ TRUCKING	24.74	
8/19/2015	55	IOJ	26.08	
8/19/2015	56	I.O.J.	26.55	
8/19/2015	59	IOJ TRUCKING	26.07	
8/19/2015	61	TRAP	25.01	
8/19/2015	62	I.O.J.	24.69	
8/19/2015	63	IOJ	27.24	
8/19/2015	64	TRAP	24.01	
8/19/2015	65	TRAP	24.71	
		Total volume for Date = 8/19/2015 (28 detail records)		710.3
		8/20/2015		
8/20/2015	1	IOJ TRUCKING	24.74	
		Total volume for Date = 8/20/2015 (1 detail record)		24.74
Total Volume for Approval Number = W5-4105 (29 detail records)				735.04
Total Trucks: 29				

Date	Log #	Truck Company	Net
Grand Total			735.04

Tonnages for W5-4105 by Date, Log Number

From 8/24/2015 To 9/3/2015

Date	Log #	Truck Company	Net
W5-4105			
		8/24/2015	
8/24/2015	2	IOJ	26.43
8/24/2015	3	I.O.J.	26.63
8/24/2015	4	I.O.J.	26.76
8/24/2015	5	I.O.J.	25.99
8/24/2015	6	IOJ TRUCKING	27.80
8/24/2015	7	IOJ TRUCKING	23.57
8/24/2015	8	I.O.J.	25.16
8/24/2015	9	IOJ TRUCKING	27.41
8/24/2015	11	J.H.CHASE	27.16
8/24/2015	12	MCCRAW	25.24
8/24/2015	13	ioj trucking	25.59
8/24/2015	14	IOJ TRUCKING	24.99
8/24/2015	15	IOJ TRUCKING	25.48
8/24/2015	16	I.O.J.	27.19
8/24/2015	17	TMT TRUCKING LLC	19.72
8/24/2015	18	TRAP	21.87
8/24/2015	19	TRAP	25.55
8/24/2015	20	IOJ	22.49
8/24/2015	21	I.O.J.	26.71
8/24/2015	22	I.O.J.	25.87
8/24/2015	23	I.O.J.	22.53
8/24/2015	25	I.O.J.	28.36
8/24/2015	26	IOJ TRUCKING	26.09
8/24/2015	27	ioj trucking	25.13
8/24/2015	28	IOJ TRUCKING	26.89
8/24/2015	29	J.H.CHASE	23.39
8/24/2015	30	I.O.J.	24.37
8/24/2015	31	MCCRAW	23.59
8/24/2015	32	IOJ TRUCKING	24.20
8/24/2015	33	I.O.J.	28.37
8/24/2015	34	IOJ TRUCKING	26.88
8/24/2015	35	TMT TRUCKING LLC	21.12
8/24/2015	36	TRAP	25.00
8/24/2015	37	TRAP	24.77
		Total volume for Date = 8/24/2015 (34 detail records)	858.3
		8/25/2015	
8/25/2015	1	IOJ	24.74
8/25/2015	2	I.O.J.	25.96
8/25/2015	3	I.O.J.	26.58
8/25/2015	4	IOJ TRUCKING	25.43
8/25/2015	5	IOJ TRUCKING	24.13
8/25/2015	6	IOJ TRUCKING	25.65

Date	Log #	Truck Company	Net
8/25/2015	7	EVAN	19.26
8/25/2015	8	ioj trucking	25.81
8/25/2015	9	J.H.CHASE	26.24
8/25/2015	10	MCCRAW	24.02
8/25/2015	11	IOJ TRUCKING	25.22
8/25/2015	12	IOJ	23.04
8/25/2015	14	IOJ TRUCKING	25.48
8/25/2015	16	IOJ TRUCKING	26.61
8/25/2015	17	TRAP	22.33
8/25/2015	18	TMT TRUCKING LLC	22.19
8/25/2015	19	I.O.J.	27.79
8/25/2015	20	TRAP	22.99
8/25/2015	21	I.O.J.	23.28
8/25/2015	22	IOJ	22.92
8/25/2015	23	I.O.J.	25.01
8/25/2015	24	ioj trucking	27.46
8/25/2015	25	IOJ TRUCKING	22.05
8/25/2015	26	IOJ TRUCKING	27.76
8/25/2015	27	DPL TRUCKING	27.66
8/25/2015	28	IOJ TRUCKING	26.57
8/25/2015	29	MCCRAW	23.76
8/25/2015	30	J.H.CHASE	23.44
8/25/2015	31	IOJ TRUCKING	23.02
8/25/2015	32	IOJ	22.06
8/25/2015	33	EVAN	16.92
8/25/2015	34	IOJ TRUCKING	25.11
8/25/2015	35	I.O.J.	27.24
8/25/2015	36	TRAP	22.62
8/25/2015	37	TMT TRUCKING LLC	21.42
8/25/2015	38	IOJ TRUCKING	25.91
8/25/2015	39	TRAP	25.42
		Total volume for Date = 8/25/2015 (37 detail records)	903.1
Total Volume for Approval Number = W5-4105 (71 detail records)			1761.4
Total Trucks: 71			
Grand Total			1761.4

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BD-AB-01 18

338211

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: WS~~[illegible]~~ 4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.45 T	GROSS
TARE	14.49 T	TARE
NET	25.96 T	NET
		TONNAGE

08:19AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-06-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: LOS Trucking

Address: 3540 Crain Hwy

Bowie Md

Driver Name (Print): B Mitchell

Vehicle License No./State: 296 ED 96

Truck Number: L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Mitchell 8-6-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Mitchell 8-6-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/6/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BO-AB-03 19

338209

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: W5-[illegible] 3105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.36 T	GROSS
TARE	12.80 T	TARE
NET	22.56 T	NET
		TONNAGE

08:12AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson — Agent for Lockheed Martin — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TNT Ent

Address: 629 Hammonds Ferry Rd Linth Md

Driver Name (Print): Jim Harrell

Vehicle License No./State: E45627D

Truck Number: 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/6 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/6 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TI-BD-AB-02 (20)

338210

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: W5-[illegible] 4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.99 T	GROSS
TARE	14.34 T	TARE
NET	25.65 T	NET
		TONNAGE

09:27AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.S Trucking

Address: 3340 Crain Hwy, Bowie, M.D 20721

Driver Name (Print): Jackie

Vehicle License No./State: 25891 46

Truck Number: 10-23

I hereby certify that the above named material was picked up at the generator site listed above.

Jackie — 8/6/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jackie — 8/6/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[illegible] — 8/6/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 21
TT-BD-AB-05

338207

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.

Approval Number
W5-[redacted]
4/05

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	33.48 T	GROSS
TARE	12.10 T	TARE
NET	21.38 T	NET
		TONNAGE

09:31AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James B Ferguson Agent for Lockheed Martin — [signature] — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address 3450 Crain Hwy
Bowie MD

Driver Name (Print) Cray Wallace

Vehicle License No./State 242CD58

Truck Number I-7

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8-6-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8-6-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/6/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 22
TT-BD-AB-04

338208

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220
Phone No.: (610) 636-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220
Phone No.:

Approval Number: WS-4[illegible]
4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.91 T	GROSS
TARE	12.80 T	TARE
NET	26.11 T	NET
		TONNAGE

09:34AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ingram Agent for Lockheed Martin — 8-6-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name:
Address: 627 Hammonds Ferry Rd, Linthicum MD
Driver Name (Print): Mel Williams
Vehicle License No./State: 404690
Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams
Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036
Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/6/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BD-AB-07 (23)

338205

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.:

Approval Number: W5-[redacted] 4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	41.38 T	GROSS
TARE	14.33 T	TARE
NET	27.05 T	NET
		TONNAGE

09:57AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tomas R Ferguson Asst for Lockheed Martin — Generator Authorized Agent Name
[signature] — Signature
8-6-15 — Shipment Date

TRANSPORTER

Transporter Name: I. O. J.

Address: Bowie MD

Driver Name (Print): Joe Olley

Vehicle License No./State: 258 E D 45 MD

Truck Number: I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley — Driver Signature
8-6-15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley — Driver Signature
8-6-15 — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
[signature] — Signature
8/6/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 24
TT-BD-113-06

338206

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.

Approval Number
~~WG-4024~~
4105

Description of Material

Non-Regulated Petroleum
Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.25 T	GROSS
TARE	12.25 T	TARE
NET	26.98 T	NET
		TONNAGE

08:58AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin
Thomas R. Ferguson — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie MD

Driver Name (Print) Jason McGill

Vehicle License No./State 245 ED 75 MD

Truck Number I-14

I hereby certify that the above named material was picked up at the generator site listed above.

JM — 8-6-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

JM — 8-6-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AB-08 25

338204

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: W5-[illegible] 4465

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.46 T	GROSS
TARE	12.61 T	TARE
NET	27.85 T	NET
		TONNAGE

10:06AM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — Signature — 8-6-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: Bowie MD

Driver Name (Print): David J Lee

Vehicle License No./State: 253ED25/ MD

Truck Number: I-18

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-6-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-6-15 Delivery Date

DESTINATION

Site Name: Brandywine Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BD-AB-05 26

338203

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: WS-[illegible]

4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.83 T	GROSS
TARE	12.42 T	TARE
NET	24.41 T	NET
		TONNAGE

CASHAM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — Signature — 8-6-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: Tropp

Address: Linthicum MD

Driver Name (Print): Jeff Tropp

Vehicle License No./State: E45602D

Truck Number: 61

I hereby certify that the above named material was picked up at the generator site listed above.

Jeff Tropp — 8/6/15

Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jeff Tropp — 8/6/15

Driver Signature / Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[illegible] — 8/6/15

Name of Authorized Agent / Signature / Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BD-AB-11 41

338201

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.:

Approval Number: W5-[illegible]

4105

Description of Material:

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	35.58 T	GROSS
TARE	12.80 T	TARE
NET	22.78 T	NET
		TONNAGE

12:41PM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson — Agent for Lockheed Mart — [signature] — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TRAPP

Address: 627 Hammonds Fry Rd
Linthicum MD

Driver Name (Print): Jim Harrell

Vehicle License No./State: E45627D

Truck Number: 83

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8/6

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8/6

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/6/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 42
TT-BD-AB-13

338199

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Road
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Road
Middle River, MD 21220
Phone No.

Approval Number
WS-4[illegible]
4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	36.65 T	GROSS
TARE	14.34 T	TARE
NET	22.31 T	NET
		TONNAGE

U.S. DEPT OF AGRICULTURE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson — 8/6/15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.J Trucking
Address 3540 Crain Hwy
Bowie, MD 20721

Driver Name (Print) Jackie
Vehicle License No./State 258 E1 46
Truck Number T-23

I hereby certify that the above named material was picked up at the generator site listed above.

Jackie McClinton — 8/6/15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jackie McClinton — 8/6/15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: T-BU-MB-12 43

338200

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: W5-4105

4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS 35.64 T — GROSS

TARE 12.10 T — TARE

NET 23.54 T — NET

TONNAGE

CLOSED 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson Agent for Lockheed Martin — Signature — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: 3450 Crain Hwy

Bowie MD

Driver Name (Print): Craig Wallace

Vehicle License No./State: 242E958

Truck Number: I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-6-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-6-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AB -14 (48)

338198

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.:

Approval Number: W5-4072A 4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	33.63 T	GROSS
TARE	12.80 T	TARE
NET	20.83 T	NET
		TONNAGE

(1:19PM 08/04/2015)

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — Signature — 8-6-15

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name:

Driver Name (Print): Mel Williams

Address: 627 Hammonds Ferry Rd, Baltimore MD

Vehicle License No./State: 404695

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams

Driver Signature | Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams

Driver Signature | Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date: 8/6/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BD-AB-10 (50)

338202

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Road
Middle River, MD 21220

Phone No.:

Approval Number: W5-[redacted] 4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.40 T	GROSS
TARE	14.49 T	TARE
NET	23.91 T	NET
		TONNAGE

01:22PM 08/04/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson, Agent for Lockheed Martin — Generator Authorized Agent Name
Signature
8-6-15 — Shipment Date

TRANSPORTER

Transporter Name: LOS Trucking
Address: 3540 Crain Hwy
Bowie Md

Driver Name (Print): B Ashford
Vehicle License No./State: 246ED96
Truck Number: I-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 8-6-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford 8-6-15
Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 55

11-BD-44-01

338197

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.

Approval Number W5-[illegible]

4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.58 T	GROSS
TARE	12.25 T	TARE
NET	26.33 T	NET
		TONNAGE

11:45PM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Engineer Agent for Lockheed Martin — Signature — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOS

Address Bowie MD

Driver Name (Print) Jason McGill

Vehicle License No./State 245 D75 MD

Truck Number I-14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-6-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-6-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 57
ST-BP-AA-02

338196

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No. (610) 636-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.

Approval Number W5-4[illegible]
4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.76 T	GROSS
TARE	14.33 T	TARE
NET	26.43 T	NET
		TONNAGE

01:46PM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T. O. J.

Address Bowie MD

Driver Name (Print) Joe Olley

Vehicle License No./State 258 E 45 MD

Truck Number T-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-6-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-6-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/6/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 59

TT-BD-AA-03

338195

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.

Approval Number

~~WS-4074~~

WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.06 T	GROSS
TARE	12.61 T	TARE
NET	27.45 T	NET
01:49PM 08/06/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-6-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie MD

Driver Name (Print) David J Lee

Vehicle License No./State 253ED25/MD

Truck Number I-18

I hereby certify that the above named material was picked up at the generator site listed above.

8-6-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-6-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/6/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number
TT-BD-AA-04 60

336194

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Road

Middle River, MD 21220

Phone No.

Approval Number
~~WS-4074~~
WS-4105

Description of Material

Non-Regulated Petroleum
Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.46 T	GROSS
TARE	12.42 T	TARE
NET	25.04 T	NET
		TONNAGE

VL-SIPM 08/06/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin 8-6-15

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name Trapp

Address Linthicum MD

Driver Name (Print) Jeff Trapp

Vehicle License No./State E45WJD

Truck Number 601

I hereby certify that the above named material was picked up at the generator site listed above.

Jeff Trapp 8/6/15

Driver Signature | Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jeff Trapp 8/6/15

Driver Signature | Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date 8/6/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AA-05 (17)

340445

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	35.81 T	GROSS
TARE	12.25 T	TARE
NET	23.56 T	NET
		TONNAGE

08:45AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-12 — Shipment Date

TRANSPORTER

Transporter Name: IOT

Address: 3540 Cinder Hwy
Bowie MD

Driver Name (Print): R Banks

Vehicle License No./State: MD 240 ED 89

Truck Number: I-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-12-15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-12-15 — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number: TT-BD-AA-01 (20)

340444

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	41.00 T	GROSS
TARE	14.49 T	TARE
NET	26.51 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ingerson — Agent for Lockheed Martin — Signature — 8-12-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: LDS Trucking
Address: 3540 Crain Hwy
Bowie MD

Driver Name (Print): B Ashford
Vehicle License No./State: 246 EDR
Truck Number: T-15 L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 8-12-15

Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford 8-12-15

Driver Signature / Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / Receipt Date: 8/12/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 21
TF BD-AA-03

340443

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.85 T	GROSS
TARE	11.99 T	TARE
NET	27.86 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ingerson Agent for Lockheed Martin — 8-12-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOT Trucking
Address 3450 Crain hwy
Bowie, Md

Driver Name (Print) Derrick Whaley
Vehicle License No./State 236 E 89
Truck Number I-10

I hereby certify that the above named material was picked up at the generator site listed above.

Derrick Whaley — 8/12/15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Derrick Whaley — 8/12/15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 22
II-BD-AA-28

340442

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS 36.92 T — GROSS
TARE 13.00 T — TARE
NET 23.92 T — NET
TONNAGE
08:59AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-12-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ IOJ
Address Bowie, MD
Driver Name (Print) C Cofield
Vehicle License No./State 258 511
Truck Number I-21 I-21

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield 8-12-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield 8-12-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine
Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date 8/12/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AA-10 24

340440

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.38 T	GROSS
TARE	12.24 T	TARE
NET	26.14 T	NET
		TONNAGE

07:15AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: E.O.J.

Address: 3540 Crain Hwy # 268
Bowie, MD 20716

Driver Name (Print): Shan Miller

Vehicle License No./State: 245 Z400

Truck Number: E-13

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-12-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-12-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 27
TT-BD - AC - 01

340439
TT-BD-

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.66 T	GROSS
TARE	11.79 T	TARE
NET	25.87 T	NET
		TONNAGE

CONFIRM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for
James R Bynum Lockheed Martin — 8-12-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TDS
Address Bowie MD

Driver Name (Print) Antonio Onley
Vehicle License No./State 211 519
Truck Number I-3

I hereby certify that the above named material was picked up at the generator site listed above.
A Onley — 8/12/15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.
A Onley — 8/12/15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AL-029

340438

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4106

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.71 T	GROSS
TARE	12.10 T	TARE
NET	25.61 T	NET
		TONNAGE

09:38AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: [redacted] Tos

Address: Bowie MD

Driver Name (Print): J. Onley

Vehicle License No./State: 212 E46

Truck Number: T-6

I hereby certify that the above named material was picked up at the generator site listed above.

J. Onley — 8/12/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J. Onley — 8/12/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AA - 30

340441

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.14 T	GROSS
TARE	12.80 T	TARE
NET	23.34 T	NET
		TONNAGE

10:43AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tommy R Ingram Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TRAPP

Address: Linthicum Md

Driver Name (Print): Mel Williams

Vehicle License No./State: E40409D

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AC-03 33

340437

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	38.65 T	GROSS
TARE	12.13 T	TARE
NET	26.52 T	NET
		TONNAGE

VERIFIED BY WS 8/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Bacon Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T05

Address: Bowie

Driver Name (Print): Bacon

Vehicle License No./State: 217-45

Truck Number: 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-12-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-12-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 11-BD-AL-04 (34)

340436

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.04 T	GROSS
TARE	12.51 T	TARE
NET	23.53 T	NET
		TONNAGE

09:54AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Engwer Agent Lockheed Martin — 8-12-16

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.T.

Address: Bowie Md

Driver Name (Print): Thomas Kuehn

Vehicle License No./State: 256ED83

Truck Number: T-20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-10-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-10-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 38

TT-BD-AC-05

340435

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material			
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated	GROSS	38.56 T	GROSS
		TARE	14.33 T	TARE
		NET	24.23 T	NET
				TONNAGE

10:05AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ann R Ferguson Lockheed Mart Ant Ag

Generator Authorized Agent Name — Signature — 8-12-15 Shipment Date

TRANSPORTER

Transporter Name I. O. J.

Address Bowie MD

Driver Name (Print) Joe Olley

Vehicle License No./State 258 E 45 MD

Truck Number I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-12-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-12-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: FT-BD-AC-08 39

340432

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.09 T	GROSS
TARE	12.25 T	TARE
NET	27.84 T	NET
		TONNAGE

10:07AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson — Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: JJT

Address: Bowie MD

Driver Name (Print): Fred McGill

Vehicle License No./State: 245 5 T5

Truck Number: F-14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-12-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-12-15 Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BH-AC-05 (40)

340434

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.26 T	GROSS
TARE	12.10 T	TARE
NET	26.16 T	NET
		TONNAGE

10:08AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: 3540 Crain Hwy
Bowie MD 20716

Driver Name (Print): Craig Wallace

Vehicle License No./State: 242 ED 58

Truck Number: T-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-12-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-12-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 41

TT-BD-AL-07

340433

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	36.84 T	GROSS
TARE	12.80 T	TARE
NET	24.04 T	NET
		TONNAGE

10:17AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Eyzer Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-12-15 — Shipment Date

TRANSPORTER

Transporter Name TRAPP

Address 627 Hammonds Fnx

Linthicum Md

Driver Name (Print) Jim Harrell

Vehicle License No./State E45627D

Truck Number 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date 8/12

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date 8/12

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date 8/12/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AC-04 46

340431

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.12 T	GROSS
TARE	12.42 T	TARE
NET	26.70 T	NET
		TONNAGE

10:41AM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Plant Mgr Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: Trapp

Address: 627 Hammonds Ferry Rd

Linthicum MD

Driver Name (Print): Jeff Trapp

Vehicle License No./State: E45626D

Truck Number: 61

I hereby certify that the above named material was picked up at the generator site listed above.

Jeff Trapp — 8/12/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jeff Trapp — 8/12/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-AC-10 (61)

340430

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material		
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated	GROSS 39.63 T TARE 12.25 T NET 27.38 T	GROSS TARE NET TONNAGE

12:00PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Rogers Agent for Lockheed Martin — [signature] — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address 3540 Crain Hwy
Bowie MD

Driver Name (Print) R Banks

Vehicle License No./State 240 E D 89

Truck Number I-11

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8-12-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8-12-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 62

TT-BD-AC-11

340429

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	43.17 T	GROSS
TARE	14.49 T	TARE
NET	28.68 T	NET
		TONNAGE

12:04PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Rogers — Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name Tod Trucking

Address 3540 Crain Hwy

Bowie Md

Driver Name (Print) B Ashford

Vehicle License No./State 2[illegible] ED96

Truck Number I-15 L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 8-12-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number

TF-BD-AC-13

340425 04

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number

WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.06 T	GROSS
TARE	13.00 T	TARE
NET	23.06 T	NET
12:16PM 08/12/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tony R Ferguson Lockheed Martin 8-12-15

Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name IOJ

Address BOWIE, MD

Driver Name (Print) C Cofield

Vehicle License No./State 258 E 11

Truck Number I-21

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield 8-12-15

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield 8-12-15

Driver Signature Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/12/15

Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AC-12 (65)

340428

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	39.78 T	GROSS
TARE	11.99 T	TARE
NET	27.79 T	NET
		TONNAGE

12:20PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — [signature] — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ Trucking

Address: 3540 Crain hwy
Bowie, Md.

Driver Name (Print): Derrick Whalen

Vehicle License No./State: 236FD89

Truck Number: I-10

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8/12/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8/12/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No. 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 71
TT-BD AL-844

340427

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	39.71 T	GROSS
TARE	12.24 T	TARE
NET	27.47 T	NET
		TONNAGE

12:47PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-12-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.T.
Address 3540 Crain Hwy #208
Bowie, MD 20716

Driver Name (Print) Shawn Miller
Vehicle License No./State 245 THMD
Truck Number T-13

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-12-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-12-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 76

IT-BD-AL-[illegible]15

340426

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.13 T	GROSS
TARE	11.79 T	TARE
NET	28.34 T	NET
		TONNAGE

12:59PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ryerson Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.J.

Address Bowie MD

Driver Name (Print) Antonio Onley

Vehicle License No./State 211 ED 19

Truck Number T-3

I hereby certify that the above named material was picked up at the generator site listed above.

A Onley — 8/12/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

A Onley — 8/12/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 29

340424

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.26 T	GROSS
TARE	12.10 T	TARE
NET	26.16 T	NET
		TONNAGE

(1:14PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name L & S — Driver Name (Print) J. Caley

Address Bowie MD — Vehicle License No./State 212 Col 96

Truck Number L-6

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/12/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/12/15 Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 86

340423

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	34.36 T	GROSS
TARE	12.80 T	TARE
NET	21.56 T	NET
		TONNAGE

01:35PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TRI-STATE

Address LINTHICUM MD

Driver Name (Print) Mel Williams

Vehicle License No./State 404090

Truck Number 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams — 8/12/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams — 8/12/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[illegible] — 8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 91

340422

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W6-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.01 T	GROSS
TARE	12.51 T	TARE
NET	24.50 T	NET
		TONNAGE

CS-15DM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Asst for Lockhd Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.T.

Address Bowie Md

Driver Name (Print) Thomas Decker

Vehicle License No./State 256ED83 MD

Truck Number T-20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-10-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-10-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number: IT-BD-ME-05 (92)

340419

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.95 T	GROSS
TARE	12.10 T	TARE
NET	22.85 T	NET
		TONNAGE

12:30PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson (Lockheed Martin) — Generator Authorized Agent Name / Signature — 8-12-15 Shipment Date

TRANSPORTER

Transporter Name: IOS
Address: 3540 Crain Hwy
Bowie MD 20716

Driver Name (Print): Cray Wallace
Vehicle License No./State: 242E358
Truck Number: I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-12-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-12-15 Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 94

TT-BD-AE-03

340421

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	36.68 T	GROSS
TARE	12.25 T	TARE
NET	24.43 T	NET
		TONNAGE

02:33PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie MD

Driver Name (Print) Jason McGill

Vehicle License No./State 245 ED 75 MD

Truck Number I-14

I hereby certify that the above named material was picked up at the generator site listed above.

8-12-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-12-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/12/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 95
IT-BD-AE-04

340420

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.32 T	GROSS
TARE	13.74 T	TARE
NET	25.58 T	NET
		TONNAGE

02:35PM 08/12/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-12-15
Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name T. O. J.
Address Bowie MD

Driver Name (Print) Joe Olley
Vehicle License No./State 258 D 545 MD
Truck Number T-12

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-12-15
Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-12-15
Driver Signature / Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / 8/12/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TI-BD-AE-01 12

340418

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.16 T	GROSS
TARE	12.46 T	TARE
NET	27.70 T	NET
		TONNAGE

08:57AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tony R Ferguson Lockheed Martin — 8-12-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: 3540 CRAIN HWY

BOWIE MD

Driver Name (Print): JERMAINE

Vehicle License No./State: 250E056 MD

Truck Number: T 17

I hereby certify that the above named material was picked up at the generator site listed above.

J.J — 8/13/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J.J — 8/13/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BO-AE-07/13

340417

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material		
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated	GROSS 35.30 T TARE 12.25 T NET 23.05 T 09:06AM 08/13/2015	GROSS TARE NET TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Kent Lee Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address 3540 Crain Hwy
Bowie MD

Driver Name (Print) R. Banks

Vehicle License No./State MD 240ED 89

Truck Number I-11

I hereby certify that the above named material was picked up at the generator site listed above.

R D — 8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AE-08 (14)

340416

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	35.84 T	GROSS
TARE	12.61 T	TARE
NET	23.23 T	NET
09:09AM 08/13/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Generator Authorized Agent Name
[signature] — Signature
Asst Rm Lockheed Martin — 8-13-15 — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: Bowie, MD

Driver Name (Print): C Cofield

Vehicle License No./State: 253 ED 25

Truck Number: I-18

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield — 8-13-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield — 8-13-15
Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: MT-BD-AE-10 15

340414

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.32 T	GROSS
TARE	11.99 T	TARE
NET	26.33 T	NET
		TONNAGE

09:17AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — [signature] — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ trucking

Address: 3540 Crain hwy
Bowie, md

Driver Name (Print): Derrick W

Vehicle License No./State: 236ED89

Truck Number: I-10

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8/13/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8/13/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 16
IT-BD-AE-09

340415

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
WS-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	36.68 T	GROSS
TARE	12.78 T	TARE
NET	23.90 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin
Tom R Ingram — Signature — 8-12-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TOJ
Address Bowie

Driver Name (Print) Bacon
Vehicle License No./State 217-65
Truck Number 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-13-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-13-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine
Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: FT-BD-AE-11 (17)

340413

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	37.15 T	GROSS
TARE	11.79 T	TARE
NET	25.36 T	NET
		TONNAGE

09:39AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — [signature] — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I. O. J.

Address: Bowie MD

Driver Name (Print): Antonio Onley

Vehicle License No./State: 211 ED 19

Truck Number: I-3

I hereby certify that the above named material was picked up at the generator site listed above.

A. Onley — 8/13/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

A. Onley — 8/13/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No. 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number: IT-BD-ME-12 18

340412

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: MS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.77 T	GROSS
TARE	12.10 T	TARE
NET	28.67 T	NET
		TONNAGE

09:47AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tommy R Layman Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T&S

Address: Bowie MD

Driver Name (Print): T. Onley

Vehicle License No./State: 212 OL 46

Truck Number: T-6

I hereby certify that the above named material was picked up at the generator site listed above.

T. Onley — 8/13/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

T. Onley — 8/13/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-MC-14 (19)

340410

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.81 T	GROSS
TARE	14.49 T	TARE
NET	24.32 T	NET
		TONNAGE

09:44AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: LOS Trucking

Address: 3540 Crain Hwy
Bowie Md

Driver Name (Print): B Stafford

Vehicle License No./State: 246ED9E

Truck Number: L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Stafford 8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Stafford 8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-ME-13 20

340411

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	39.01 T	GROSS
TARE	12.51 T	TARE
NET	26.50 T	NET
		TONNAGE

09:48AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.T.

Address: Bowie Md

Driver Name (Print): Thomas Tucker

Vehicle License No./State: 256ED83

Truck Number: T-20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-13-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-13-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 23
LT-BD-AE-15

340409

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
WS-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	37.07 T	GROSS
TARE	12.24 T	TARE
NET	24.83 T	NET
		TONNAGE

10:01AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-13-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name F.O.J.
Address 3540 Crain Hwy #268
Bowie, MD 20716

Driver Name (Print) Shawn Miller
Vehicle License No./State 245 74 MD
Truck Number I-13

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8-13-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8-13-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/13/15
Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: II-BD-A 26

340408

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	36.48 T	GROSS
TARE	12.25 T	TARE
NET	24.23 T	NET
		TONNAGE

10:14AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tommy R Langston Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TOS

Address: Bowie MD

Driver Name (Print): Jason McGill

Vehicle License No./State: 245 ED 75 MD

Truck Number: T-14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-13-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-13-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-A - 28

340407

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.00 T	GROSS
TARE	14.33 T	TARE
NET	23.67 T	NET
		TONNAGE

10:17AM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — [signature] — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I O J

Address Bowie MD

Driver Name (Print) Joe Olley

Vehicle License No./State 258 E D 45 MD

Truck Number I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-A -

340406

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

30

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

11:70 T
99:29 T
10:30AM 08/13/2015

GROSS 34.40
TARE 11.78
NET 22.62
TONNAGE TMC

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin — Generator Authorized Agent Name
Signature
8-13-15 — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: Bowie, MD

Driver Name (Print): Bill Banks

Vehicle License No./State: 205 ED 88 MD

Truck Number: 2

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8/13/15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8/13/15

DESTINATION

Site Name: Brandywine

Phone No. 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 32

TT-BD-MF-04

340405

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	42.05 T	GROSS
TARE	12.24 T	TARE
NET	29.81 T	NET
		TONNAGE

A-TEAM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James B Ferguson Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOS

Address 3540 Crain Hwy

Bowie MD

Driver Name (Print) Wendell

Vehicle License No./State 226 ED67

Truck Number 18

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/13/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/13/15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 37

TT-BD-AA-11

340404

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	33.82 T	GROSS
TARE	12.25 T	TARE
NET	21.57 T	NET
		TONNAGE

12:25PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TOJ

Address 3540 Crain Hwy

Bowie MD

Driver Name (Print) R Banke

Vehicle License No./State MD 240ED89

Truck Number T-11

I hereby certify that the above named material was picked up at the generator site listed above.

8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AA-42 38

340403

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	39.96 T	GROSS
TARE	12.46 T	TARE
NET	27.50 T	NET
		TONNAGE

12:37PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I O J

Address: 3540 CRAIN HWY
BOWIE MD

Driver Name (Print): JERMAINE

Vehicle License No./State: 250E056 MD

Truck Number: T 17

I hereby certify that the above named material was picked up at the generator site listed above.

J. T — 8/13/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J. T — 8/13/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 39

340402

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.34 T	GROSS
TARE	11.99 T	TARE
NET	25.35 T	NET
12:44PM 08/13/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tom's R Ferguson Lockheed Mrtn — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address 3540 crain hwy

Bowie, md

Driver Name (Print) Derrick Whalen

Vehicle License No./State 236ED89

Truck Number T-10

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/13/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-13-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 41

340400

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.12 T	GROSS
TARE	14.49 T	TARE
NET	24.63 T	NET
		TONNAGE

12:54PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name L&S Trucking

Address 3540 Crain Hwy

Bowie Md

Driver Name (Print) B Ashford

Vehicle License No./State 246-D96

Truck Number L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford 8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[illegible] 8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 42

340401

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.89 T	GROSS
TARE	12.13 T	TARE
NET	24.76 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name LOJ

Address Bowie md

Driver Name (Print) BACON

Vehicle License No./State 217-65

Truck Number 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date 8/13/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 43

TT-BD-AF-09

340397

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	39.43 T	GROSS
TARE	12.24 T	TARE
NET	27.19 T	NET
		TONNAGE

01:44PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — [signature] — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I.O.J.

Address 3540 Crain Hwy #268

Bowie, MD 20716

Driver Name (Print) Shawn Miller

Vehicle License No./State 24574 MD

Truck Number I-13

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Log Number: TT-BF-AF-07 46

340399

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W6-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	37.93 T	GROSS
TARE	11.79 T	TARE
NET	26.14 T	NET
		TONNAGE

02:12PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

[signature] — Signature

8-13-15 — Shipment Date

TRANSPORTER

Transporter Name: I. O. J.

Address: Bowie MD

Driver Name (Print): Antonio Onley

Vehicle License No./State: 211 ED19

Truck Number: I-3

I hereby certify that the above named material was picked up at the generator site listed above.

A. Onley — Driver Signature

8/13/15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

A. Onley — Driver Signature

8/13/15 — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No. 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

[signature] — Signature

8/13/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 47
IT-BO-AF-BB

340398

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.65 T	GROSS
TARE	10.51 T	TARE
NET	24.14 T	NET
		TONNAGE

12:14PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson — Agent for Lockheed Martin — 8-13-15
Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: I.O.J.
Address: Bowie Md

Driver Name (Print): Thomas Tucker
Vehicle License No./State: 256ED83
Truck Number: I-20

I hereby certify that the above named material was picked up at the generator site listed above.
Driver Signature — 8-13-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.
Driver Signature — 8-13-15 Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036
Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 48

TT-BD-AF-11

340395

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	40.28 T	GROSS
TARE	12.25 T	TARE
NET	28.03 T	NET
		TONNAGE

02:24PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin Agent A

Generator Authorized Agent Name — Signature — 8-13-15 Shipment Date

TRANSPORTER

Transporter Name IOT

Address Bowie MD

Driver Name (Print) Jason McGill

Vehicle License No./State 245 ED 75 MD

Truck Number I-14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-13-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-13-15 Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/13/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 50

TT-BD-AF-10

340396

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	35.91 T	GROSS
TARE	12.10 T	TARE
NET	23.81 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I 05

Address: Bowie MD

Driver Name (Print): J. Onley

Vehicle License No./State: 212 Ed 46

Truck Number: I-6

I hereby certify that the above named material was picked up at the generator site listed above.

J. Onley — 8/13/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J. Onley — 8/13/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-13 51

340393

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.47 T	GROSS
TARE	11.78 T	TARE
NET	22.69 T	NET
		TONNAGE

12:45PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tom R Ryan Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IDJ

Address: Bowie, MD

Driver Name (Print): Bill Banks

Vehicle License No./State: 205 ED 86 M

Truck Number: 2

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8/13/15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8/13/15

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/13/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-14 52

340392

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4106

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.64 T	GROSS
TARE	12.01 T	TARE
NET	23.63 T	NET
		TONNAGE

02:57PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ingram Lockheed Martin — 8-13-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.S.

Address: Bowie MD

Driver Name (Print): Raymond

Vehicle License No./State: Md 242-57

Truck Number: 15

I hereby certify that the above named material was picked up at the generator site listed above.

8-13-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-13-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/13/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 54
IT-BD-AF-12

340394

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.75 T	GROSS
TARE	14.35 T	TARE
NET	26.40 T	NET
		TONNAGE

13:09PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ingram Agent for Lockheed Martin — 8-13-15
Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: I.O.J.
Address: Bowie MD

Driver Name (Print): Joe Olley
Vehicle License No./State: 258 545 MD
Truck Number: I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-13-15
Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-13-15
Driver Signature / Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / Receipt Date: 8/13/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 56

IT-BD-AF-15

340391

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material		
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated	GROSS 38.73 T	GROSS
		TARE 12.24 T	TARE
		NET 26.49 T	NET
			TONNAGE

03:29PM 08/13/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin — Generator Authorized Agent Name

Signature

8-13-15 — Shipment Date

TRANSPORTER

Transporter Name IDJ

Address 3540 Crain Hwy

Bowie

Driver Name (Print) Wendell

Vehicle License No./State 226 ED 67

Truck Number IT

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/13/15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/13/15 — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

8/13/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-14 (10)

340390

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	39.87 T	GROSS
TARE	14.49 T	TARE
NET	25.38 T	NET
		TONNAGE

DR:34AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — [signature] — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TOJ Trucking

Address: 3540 Crain Hwy
Bowie Md

Driver Name (Print): B Ashford

Vehicle License No./State: 246 ED96

Truck Number: T-15

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8-14-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8-14-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 11-BD-AE-17 12

340387

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.89 T	GROSS
TARE	13.74 T	TARE
NET	22.15 T	NET
		TONNAGE

10:50AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Fraser Agent for Lockheed Martin — 8-15-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: EDS

Address: Bowie MD

Driver Name (Print): D. Wiggs

Vehicle License No./State: MD 245 53

Truck Number: I-12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/14/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-20 13

340384

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.28 T	GROSS
TARE	12.13 T	TARE
NET	25.15 T	NET
		TONNAGE

WS-17AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T O J

Address: Bowie

Driver Name (Print): Bacon

Vehicle License No./State: 217-65

Truck Number: 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-14-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-14-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/14/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-2 14

340383

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	36.18 T	GROSS
TARE	12.00 T	TARE
NET	24.18 T	NET
		TONNAGE

05:14AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Asst Fm Lockheed Martin — 8-14-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: E.O.S
Address: Bowie Md

Driver Name (Print): Raymond
Vehicle License No./State: md 242-57
Truck Number: I-5

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-14-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-15 (15)

340389

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	37.30 T	GROSS
TARE	12.24 T	TARE
NET	25.06 T	NET
		TONNAGE

09:21AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — [signature] — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOS

Address: 3540 Crain Hwy
Bowie MD

Driver Name (Print): Wendell Burnette

Vehicle License No./State: 226 ED67

Truck Number: 18

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8/14/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8/14/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-NF-16 16

340388

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4106

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.43 T	GROSS
TARE	12.10 T	TARE
NET	24.33 T	NET
		TONNAGE

10:34AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOS

Address: 3540 Crain Hwy

Bowie MD 20716

Driver Name (Print): Craig Wallace

Vehicle License No./State: 2425 58

Truck Number: I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-14-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-14-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-18 (20)

340386

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	32.89 T	GROSS
TARE	12.80 T	TARE
NET	20.09 T	NET
		TONNAGE

09:53AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Fagan — Agent for Lockheed Martin — [signature] — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TRAPP

Address: LINTHICUM Md

Driver Name (Print): Mel Williams

Vehicle License No./State: 464090

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: M-BD-MF-22 21

340382

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	33.81 T	GROSS
TARE	12.27 T	TARE
NET	21.54 T	NET
		TONNAGE

10:04AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson — Agent for Lockheed Martin — Signature — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.S

Address:

Driver Name (Print): Michael

Vehicle License No./State: 226 E 68

Truck Number: I-9

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.14.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.14.15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-MF-25 24

340379

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WMS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.93 T	GROSS
TARE	12.51 T	TARE
NET	22.42 T	NET
		TONNAGE

10:21AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for

Tommy R Ferguson Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: F.O.F.

Address: Bowie Md

Driver Name (Print): Thomas Tucker

Vehicle License No./State: 256E083

Truck Number: F-20

I hereby certify that the above named material was picked up at the generator site listed above.

8-14-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-14-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-19 (26)

340385

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4013

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	34.48 T	GROSS
TARE	11.99 T	TARE
NET	22.49 T	NET
		TONNAGE

CATSAM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ Trucking

Address: 3540 Crain hwy

Bowie, md

Driver Name (Print): Derrick Whalen

Vehicle License No./State: 23CED89

Truck Number: I-10

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/14/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 27
FT-BD-MF-35

340381

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number
WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	32.48 T	GROSS
TARE	11.78 T	TARE
NET	21.90 T	NET
10:42AM 08/14/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie, MD

Driver Name (Print) Bill Banks

Vehicle License No./State 205 ED 88 MD

Truck Number 2

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/14/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 28
TT-BD-AF-26

340378

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 636-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 636-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.26 T	GROSS
TARE	12.46 T	TARE
NET	24.80 T	NET
		TONNAGE

10:44AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — Signature — 8-14-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOS
Address 3540 CRAIN HWY
BOWIE MD

Driver Name (Print) JERMAINE THOMPSON
Vehicle License No./State 250689 MD
Truck Number I 17

I hereby certify that the above named material was picked up at the generator site listed above.

J.T — 8/14/15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J.T — 8/14/15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-24 (33)

340380

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.16 T	GROSS
TARE	14.33 T	TARE
NET	25.83 T	NET
		TONNAGE

11:14AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — [signature] — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I. O. J.

Address: Bowie MD

Driver Name (Print): Joe Olley

Vehicle License No./State: 258 ED 45 MD

Truck Number: I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-14-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-14-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-80-AF-27 34

340377

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.42 T	GROSS
TARE	12.80 T	TARE
NET	23.42 T	NET
		TONNAGE

11:18AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name TRAPP

Address 83 Hammonds Lith Md

Driver Name (Print) Jim Harrell

Vehicle License No./State E45627D

Truck Number 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature | Shipment Date 8/14

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature | Delivery Date 8/14

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date 8/14/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-AF-28 39

340376

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	40.02 T	GROSS
TARE	14.49 T	TARE
NET	25.53 T	NET
		TONNAGE

11:43AM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — [signature] — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TOS Trucking

Address 3540 Crain Hwy
Bowie

Driver Name (Print) [signature]

Vehicle License No./State 246 [illegible] 96

Truck Number I-15 I-15

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8-14-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8-14-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-29 (47)

340375

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	35.29 T	GROSS
TARE	13.74 T	TARE
NET	21.55 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOT

Address: Crain Hwy Bowie MD

Driver Name (Print): D Wiggs

Vehicle License No./State: 245553

Truck Number: F-12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/14/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number
TI-BD-AF-30 50

340374

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material

Non-Regulated Petroleum
Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.49 T	GROSS
TARE	12.13 T	TARE
NET	26.36 T	NET
		TONNAGE

2:54PM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-14-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name EOJ
Address Bowie MD

Driver Name (Print) BACON
Vehicle License No./State 217-45
Truck Number 14

I hereby certify that the above named material was picked up at the generator site listed above.

A Bacon 8-14-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

A Bacon 8-14-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-31 51

340373

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.35 T	GROSS
TARE	12.01 T	TARE
NET	23.34 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J

Address: Bowie md

Driver Name (Print): Raymond Crooks

Vehicle License No./State: md 242-57

Truck Number: I-5

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-14-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-14-15 Delivery Date

DESTINATION

Site Name: Brandywine Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-32 52

340372

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.82 T	GROSS
TARE	12.24 T	TARE
NET	28.58 T	NET
		TONNAGE

12:57PM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James B. Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-14-15 — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: 3540 Crain Hwy
Bowie

Driver Name (Print): Wendell Burnette

Vehicle License No./State: 226 FD67

Truck Number: FS

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8/14/15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8/14/15

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/14/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 57
TT-BD-AF-33

340371

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.76 T	38.76	GROSS
TARE	12.10 T	12.10	TARE
NET	26.66 T	26.66	NET
			TONNAGE

01:21PM 08/14/2015 TMC

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed

Generator Authorized Agent Name — Signature — Shipment Date 8-14-15

TRANSPORTER

01:21PM 08/14/2015

Transporter Name IOJ

Address 3540 Crain Hwy
Bowie MD 20716

Driver Name (Print) Craig Wallace

Vehicle License No./State 242 ED58

Truck Number I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date 8-14-15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date 8-14-15

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date 8/14/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: T-BD-NF-34 (61)

340370

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.44 T	GROSS
TARE	12.27 T	TARE
NET	25.17 T	NET
		TONNAGE

U.S.SOIL 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Lockheed Martin — 8-14-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: JOS

Driver Name (Print): Michael

Address:

Vehicle License No./State: 226 ED 68

Truck Number: T-9

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8.14.15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8.14.15

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / Receipt Date: 8/14/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TF-BD-MT-36 67

340368

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	36.14 T	GROSS
TARE	12.51 T	TARE
NET	23.63 T	NET
		TONNAGE

12:04PM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ryerson Lockheed Mart — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: EOS

Address: Bowie MD

Driver Name (Print): Thomas Tucker

Vehicle License No./State: 256 D 83

Truck Number: I-20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-14-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-14-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 11-BD-AF-35 (69)

340369

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.15 T	GROSS
TARE	12.80 T	TARE
NET	23.35 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-14-15 — Shipment Date

TRANSPORTER

Transporter Name: TRAP

Address: WITHYCOMB MD

Driver Name (Print): Mel Williams

Vehicle License No./State: E 40405 D

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams — Driver Signature

Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams — Driver Signature

Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

8/14/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 74
IT-BD-AF-37

340367

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number
WM-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.13 T	GROSS
TARE	11.99 T	TARE
NET	27.14 T	NET
		TONNAGE

12:24PM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson for Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOS IOS

Address 3540 Crain Hwy

Bowie, md

Driver Name (Print) D. Whalen

Vehicle License No./State 236 ER 89

Truck Number I-10

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/14/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-38 83

340366

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.45 T	GROSS
TARE	12.46 T	TARE
NET	27.99 T	NET
		TONNAGE

03:00PM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — [signature] — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: FOT

Address: 3540 CRAIN HWY
BOWIE MD

Driver Name (Print): JERMAINE THOMPSON

Vehicle License No./State: 250 E 56

Truck Number: I-17

I hereby certify that the above named material was picked up at the generator site listed above.

JT — 8/14/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

JT — 8/14/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No. 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/14/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number: IT-BD-AF-39 84

340365

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.24 T	GROSS
TARE	12.55 T	TARE
NET	27.69 T	NET
		TONNAGE

(3:07PM 08/14/2015)

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tom R Ferguson Lockheed Martin — 8-14-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: Progressive

Address: Upper Marlboro MD

Driver Name (Print): JOE

Vehicle License No./State: 249 EB89

Truck Number: PG-2

I hereby certify that the above named material was picked up at the generator site listed above.

JC — 8/14/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

JC — 8/14/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number: TT-BD-AF-40 (100)

340364

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.02 T	GROSS
TARE	11.78 T	TARE
NET	28.24 T	NET
05:00PM 08/14/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson — Agent for Lockheed Martin — Signature — 8-14-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: IOJ

Driver Name (Print): Bill Banks

Address: Bowie, MD

Vehicle License No./State: 205 ED 88 MD

Truck Number: 2

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/14/15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/14/15 — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 17-BD-AF-41 101

340363

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 636-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.06 T	GROSS
TARE	14.33 T	TARE
NET	24.73 T	NET
		TONNAGE

05:01PM 08/14/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-14-15 — Shipment Date

TRANSPORTER

Transporter Name: EDI

Address: Bowie MD

Driver Name (Print): T. Oliver

Vehicle License No./State: 259 D Y5

Truck Number: E-27

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-14-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-14-15 Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/14/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bd-af-42 15

340311

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4108

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	36.67 T	GROSS
TARE	12.25 T	TARE
NET	24.42 T	NET
		TONNAGE

08:52AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

Shipment Date

TRANSPORTER

Transporter Name: EQT

Address: 3540 Crain Hwy

Bowie MD

Driver Name (Print): R Banks

Vehicle License No./State: MD 2470ED89

Truck Number: T-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8-19-15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8-19-15

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/19/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 4319

340306

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4106

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.24 T	GROSS
TARE	12.61 T	TARE
NET	24.63 T	NET
		TONNAGE

09:02AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldberry for Lockheed Martin — Ivanna G — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address BOWIE, MD

Driver Name (Print) C Cofield

Vehicle License No./State 253525

Truck Number I-18

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield — 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield — 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 21

340303

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.19 T	GROSS
TARE	12.13 T	TARE
NET	27.06 T	NET
		TONNAGE

@ CSM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name ZOJ

Address Bowie md

Driver Name (Print) Bacon

Vehicle License No./State 217-65

Truck Number 74

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 22

340305

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	34.94 T	GROSS
TARE	12.01 T	TARE
NET	22.93 T	NET
		TONNAGE

09:07AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name F.O.T

Address Bowie Md

Driver Name (Print) Raymond Cooks

Vehicle License No./State md 242-57

Truck Number F-5

I hereby certify that the above named material was picked up at the generator site listed above.

Raymond Cooks — 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Raymond Cooks — 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 23

340307

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.69 T	GROSS
TARE	13.74 T	TARE
NET	22.95 T	NET
		TONNAGE

09:09AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name I.O.J

Address Crain Hwy Bowie MD

Driver Name (Print) D Wiggs

Vehicle License No./State MD 245 53

Truck Number I-12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature | 8/19/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature | 8/19/15 Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 27

340308

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	38.23 T	GROSS
TARE	11.99 T	TARE
NET	26.24 T	NET
		TONNAGE

09:26AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

8/19/15 — Shipment Date

TRANSPORTER

Transporter Name: TOS

Address: 3540 Crain hwy

Bowie, md

Driver Name (Print): Derrick Whalen

Vehicle License No./State: 23GED89

Truck Number: T-10

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/19/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/19/15 Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 28

340304

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WMS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.34 T	GROSS
TARE	12.10 T	TARE
NET	27.24 T	NET
		TONNAGE

10:22AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name L.O.J

Address Bowie MD

Driver Name (Print) T. Onley

Vehicle License No./State 212 Ed 46

Truck Number 26

I hereby certify that the above named material was picked up at the generator site listed above.

T. Onley — 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

T. Onley — 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

— 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-68-af-32

340314

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	36.85 T	GROSS
TARE	12.24 T	TARE
NET	24.61 T	NET
		TONNAGE

09:31AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I. O. J.

Address: 3540 Crain Hwy #268
Bowie, MD 20716

Driver Name (Print): S. Miller

Vehicle License No./State: 245 74 MD

Truck Number: I-13

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 35

340302

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material

Non-Regulated Petroleum
Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.77 T	GROSS
TARE	12.24 T	TARE
NET	28.53 T	NET
		TONNAGE

(D+4AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Escalante for Lockheed Martin — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I.O.S.

Address 3540 Crain HWy
Bowie MD

Driver Name (Print) Wendell Burnette

Vehicle License No./State 226 ED 67

Truck Number 18

I hereby certify that the above named material was picked up at the generator site listed above.

W Burnette — 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

W Burnette — 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

_____ — _____ — 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 36

340309

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.90 T	GROSS
TARE	14.34 T	TARE
NET	23.56 T	NET
		TONNAGE

(12:47AM 08/19/2015)

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Transporter Name T.O.J Trucking

Address 3540 Crain Hwy

Bowie, MD 20721

Driver Name (Print) Jackie McInnes

Vehicle License No./State 258EJ46

Truck Number TJ-23

I hereby certify that the above named material was picked up at the generator site listed above.

Jackie McInnes 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jackie McInnes 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bd-af-38

340312

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	35.62 T	GROSS
TARE	12.80 T	TARE
NET	22.82 T	NET
09:52AM 08/19/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Franna Goldsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

8/19/15 — Shipment Date

TRANSPORTER

Transporter Name: Tripp

Address: Linthicum MD

Driver Name (Print): Mel Williams

Vehicle License No./State: 40409D

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams — Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams — Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 14-bd-af-40

340313

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.01 T	GROSS
TARE	12.25 T	TARE
NET	26.76 T	NET
		TONNAGE

10:10AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldstern for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: JES

Address: Bowie MD

Driver Name (Print): JASON

Vehicle License No./State: 245ED 7 MD

Truck Number: T-14

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-19-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/19/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 41 65

340316

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.76 T	GROSS
TARE	12.10 T	TARE
NET	25.66 T	NET
		TONNAGE

10:12AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOS

Address 3540 Crain Hwy

Bowie MD 20716

Driver Name (Print) Craig Wallace

Vehicle License No./State 242ED58

Truck Number I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-19-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-19-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number
++-bd-af- 42

340310

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	33.12 T	GROSS
TARE	12.80 T	TARE
NET	20.32 T	NET
10:14AM 08/19/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanne Goldsperry for Lockheed Martin — Ivanne — 8/19/15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TAPP

Address 627 Hammonds Ferry Linth MD

Driver Name (Print) Jim Harrell

Vehicle License No./State E456270

Truck Number 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date 8/19

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date 8/19

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date 8/19/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bd-af-5644

340315

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.95 T	GROSS
TARE	12.42 T	TARE
NET	25.53 T	NET
		TONNAGE

0:34AM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanne Goldsberry for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: Trapp

Address: 6207 Hammonds Ferry Rd

Linthicum MD

Driver Name (Print): Jeff Trapp

Vehicle License No./State: E45621D

Truck Number: 61

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/19/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/19/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: Lt-bj-al 50

340318

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	36.67 T	GROSS
TARE	12.25 T	TARE
NET	24.42 T	NET
12:04PM 08/19/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Joanne Goldsberry for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: TOS

Address: 3540 Crain Hwy
Bowie MD

Driver Name (Print): R Banks

Vehicle License No./State: MD 240 5089

Truck Number: T-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-19-15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-19-15 — Delivery Date

DESTINATION

Site Name: Brandywine Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bd-at-56

340319 (51)

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.36 T	GROSS
TARE	12.13 T	TARE
NET	28.23 T	NET
		TONNAGE

12:31PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Evanna Goldsberry for Lockheed Martin — Evanna G — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: Bowie md

Driver Name (Print): BACON

Vehicle License No./State: 217-65

Truck Number: I 4

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 4--bd-af-59 52

340320

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.06 T	GROSS
TARE	12.01 T	TARE
NET	25.05 T	NET
		TONNAGE

12:29PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

for Lockheed Martin Ivanna Baldberry — Signature — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.D.J
Address: Bowie md

Driver Name (Print): Raymond Cooks
Vehicle License No./State: md 241-57
Truck Number: F-5

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-19-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-19-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 53 / 60

340321

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	42.21 T	GROSS
TARE	11.99 T	TARE
NET	30.22 T	NET
		TONNAGE

12:46PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: 3540 crain hwy
Bowie, Md

Driver Name (Print): Derrick Whalen

Vehicle License No./State: 236ED89

Truck Number: I-10

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: bt-bt-af 61

340322 54

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.48 T	GROSS
TARE	13.74 T	TARE
NET	24.74 T	NET
		TONNAGE

12:47PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J

Address: Crain Hwy Bowie MD

Driver Name (Print): D Wiggs

Vehicle License No./State: MD 24553

Truck Number: I-12

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bt-af-62 (55)

340323

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.32 T	GROSS
TARE	12.24 T	TARE
NET	26.08 T	NET
		TONNAGE

01:03PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J.

Address: 3540 Crain Hwy #268
Bowie, MD 20716

Driver Name (Print): S. Miller

Vehicle License No./State: 74574 MD

Truck Number: I-13

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 56 ~~H-a6-bd-63~~

340324

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.79 T	GROSS
TARE	12.24 T	TARE
NET	26.55 T	NET
		TONNAGE

01:06PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J.

Address: 3540 Crain Hwy
Bowie

Driver Name (Print): Wendell Burnette

Vehicle License No./State: 026 ED 67

Truck Number: I8

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: to-bd-af-0559

340326

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.17 T	GROSS
TARE	12.10 T	TARE
NET	26.07 T	NET
		TONNAGE

OIL TERM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — 8/19/15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: T.O.J

Address: Bowie MD

Driver Name (Print): J. Conley

Vehicle License No./State: 212 C146

Truck Number: T-6

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/19/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/19/15 Delivery Date

DESTINATION

Site Name: Brandywine Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number tt-bd-af-66 (61)

340327

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	37.81 T	GROSS
TARE	12.80 T	TARE
NET	25.01 T	NET
		TONNAGE

01:57PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name Trigg

Address LINTHICUM Md

Driver Name (Print) Mel Williams

Vehicle License No./State 404090

Truck Number 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bl-a1-07 (02)

340328

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 636-4012

Approval Number: WS-4106

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	36.79 T	GROSS
TARE	12.10 T	TARE
NET	24.69 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

8/19/15 — Shipment Date

TRANSPORTER

Transporter Name: IOS

Address: 3540 Crain Hwy

Bowie MD 20716

Driver Name (Print): Greg Wallace

Vehicle License No./State: 242E058

Truck Number: I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-19-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-19-15 Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bd-af-68 (63)

340329

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	39.49 T	GROSS
TARE	12.25 T	TARE
NET	27.24 T	NET
		TONNAGE

02:00PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: Ioj

Address: Bowie MD

Driver Name (Print): Jason McGill

Vehicle License No./State: 245 ED 75 MD

Truck Number: I-14

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8-19-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8-19-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/19/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: Tt-bd-af-69

340330

64

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	36.81 T	GROSS
TARE	12.80 T	TARE
NET	24.01 T	NET
		TONNAGE

02:13PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TRAPP

Address: 627 Hammonds Fry
Linth Md

Driver Name (Print): Jim Harrell

Vehicle License No./State: E456270

Truck Number: 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8/19

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8/19

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/19/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number

tl-bd-af 70 CS

340317

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number

WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.13 T	GROSS
TARE	12.42 T	TARE
NET	24.71 T	NET
		TONNAGE

12:21PM 08/19/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanne Goldsberry for Lockheed Martin — Ivannes — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name Trapp

Address 6237 Hammonds Ferry Rd

Linthicum MD

Driver Name (Print) Jeff Trapp

Vehicle License No./State E456026D

Truck Number 61

I hereby certify that the above named material was picked up at the generator site listed above.

Jeff Trapp — 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jeff Trapp — 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/19/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: tt-bd-af-64 (1)

340325

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	39.08 T	GROSS
TARE	14.34 T	TARE
NET	24.74 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8/19/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TJO J Trucking

Address: 3540 Crain Hwy
Bowie, MD 20721

Driver Name (Print): Jackie McClones

Vehicle License No./State: 256 EJ 46

Truck Number: TJ - 23

I hereby certify that the above named material was picked up at the generator site listed above.

Jackie McClones — 8/19/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jackie McClones — 8/19/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/20/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 2

340331

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.68 T	GROSS
TARE	12.23 T	TARE
NET	26.45 T	NET
		TONNAGE

09:50AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberg for Lockheed Martin — Signature — Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Transporter Name: EQT

Address: 3540 Crain Hwy

Bowie MD

Driver Name (Print): R Banks

Vehicle License No./State: MD240ED89

Truck Number: T-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8-24-15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8-24-15

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/24/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 3

340334

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.90 T	GROSS
TARE	12.27 T	TARE
NET	26.63 T	NET
		TONNAGE

08:59AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — 8.24.15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.S

Address

Driver Name (Print) Michael

Vehicle License No./State 226668

Truck Number T-9

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.24.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.24.15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF (4)

340332

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.89 T	38.89	GROSS
TARE	12.13 T	12.13	TARE
NET	26.76 T	26.76	NET
			TONNAGE

09:02AM 08/24/2015 TMC

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: Bowie md

Driver Name (Print): BACON

Vehicle License No./State: 217-65

Truck Number: I 4

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/24/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 340333

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	38.00 T	GROSS
TARE	12.01 T	TARE
NET	25.99 T	NET
		TONNAGE

09:03AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for lockheed martin — Signature — 8-24-15
Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: F.O.J
Address: Bowie Md

Driver Name (Print): Raymond Crooks
Vehicle License No./State: VMd-242-57
Truck Number: I-5

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-24-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-24-15 Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 6

340335

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.41 T	GROSS
TARE	12.61 T	TARE
NET	27.80 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address BOWIE, MD

Driver Name (Print) C Cofield

Vehicle License No./State 253 & 25

Truck Number I-18

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield — 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield — 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

— 8/24/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 7

340336

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS 36.08 T GROSS

TARE 12.51 T TARE

NET 23.57 T NET

TONNAGE

09:20AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Transporter Name T.O.J.

Address Bowie Md

Driver Name (Print) Thomas Tucker

Vehicle License No./State 256ED83

Truck Number T-20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-24-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-24-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 8

340337

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WMS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS 34.95 T GROSS

TARE 11.79 T TARE

NET 25.16 T NET

TONNAGE

09:25AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberg for Lockheed Martin — Signature — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T. O. J.

Address Bowie MD

Driver Name (Print) Antonio Onley

Vehicle License No./State 211ED19

Truck Number T-3

I hereby certify that the above named material was picked up at the generator site listed above.

A. Onley — 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

A. Onley — 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 9

340338

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.51 T	GROSS
TARE	12.10 T	TARE
NET	27.41 T	NET
		TONNAGE

09:30AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name I.O.J

Address Bowie MD

Driver Name (Print) J. Onley

Vehicle License No./State 212 Col 46

Truck Number I-6

I hereby certify that the above named material was picked up at the generator site listed above.

J. Onley 8/24/15

Driver Signature | Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J. Onley 8/24/15

Driver Signature | Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/24/15

Name of Authorized Agent | Signature | Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 11

340339

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS 38.91 T — GROSS

TARE 11.75 T — TARE

NET 27.16 T — NET

TONNAGE

OV 404M 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — 8.24.15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name J.H. Chase

Address Capitol Heights MD

Driver Name (Print) Mike

Vehicle License No./State 222824

Truck Number 5.1

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.24.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.24.15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt/Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 12

340340

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number
WS-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS 37.49 T — GROSS
TARE 12.25 T — TARE
NET 25.24 T — NET
TONNAGE

12:44AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Golcuberry for Lockheed Martin — Signature — 8/24/15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name McCraw Trucking

Address 7742 Emerson Rd.
Hyattsville, MD

Driver Name (Print) Joe McCraw

Vehicle License No./State MD 160453

Truck Number 07

I hereby certify that the above named material was picked up at the generator site listed above.

Joe M. — 8/24/15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe M. — 8/24/15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 13

340344

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.08 T	GROSS
TARE	14.49 T	TARE
NET	25.59 T	NET
		TONNAGE

09:55AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G.

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name LOS Trucking

Address 3540 Crain Hwy
Bowie Md

Driver Name (Print) B Ashford

Vehicle License No./State 246 ED96

Truck Number L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/24/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 14

340342

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material:
Non-Regulated Petroleum
Contaminated Soil
Non DOT/RCRA Regulated

GROSS	37.45 T	GROSS
TARE	12.46 T	TARE
NET	24.99 T	NET
		TONNAGE

@ 5AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

8-24-15 — Shipment Date

TRANSPORTER

Transporter Name: IOJ

Address: 3540 Crain Hwy
Bowie MD 20716

Driver Name (Print): Craig Wallace

Vehicle License No./State: 242E358 MD

Truck Number: I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-24-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-24-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

that the above named material has been accepted and to the best of my knowledge the foregoing is true

Signature — 8/24/15 Receipt Date

Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 15

340341

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.26 T	GROSS
TARE	11.78 T	TARE
NET	25.48 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Greasberg for Lockheed Martin — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie MD

Driver Name (Print) Bill Banks

Vehicle License No./State 205 ED88 MD

Truck Number 2

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/24/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/24/15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 16

340346

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.43 T	GROSS
TARE	12.24 T	TARE
NET	27.19 T	NET
		TONNAGE

10:18AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldberg for Lockheed Martin — Generator Authorized Agent Name

Signature

Shipment Date

TRANSPORTER

Transporter Name: IOS

Address: 3540 Crain Hwy

Bowie

Driver Name (Print): Wendell Burnette

Vehicle License No./State: 226 F567

Truck Number: 18

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8/24/15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8/24/15

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/24/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 17

340345

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	33.16 T	GROSS
TARE	13.44 T	TARE
NET	19.72 T	NET
		TONNAGE

10:29AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TMT/IOS

Address 401 Jordon Pond Ln

Bowie Md 20721

Driver Name (Print) Travis

Vehicle License No./State 166ED01

Truck Number T-1

I hereby certify that the above named material was picked up at the generator site listed above.

Travis Meadows 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Travis Meadows 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date 8/24/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 18

340347

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.67 T	GROSS
TARE	12.80 T	TARE
NET	21.87 T	NET
		TONNAGE

DATE 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldberg for Lockheed Martin — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TRUCK

Address Linthicum MD

Driver Name (Print) Mel Williams

Vehicle License No./State 404090

Truck Number 78

I hereby certify that the above named material was picked up at the generator site listed above.

Mel Williams — Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Mel Williams — Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 19

340343

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.97 T	GROSS
TARE	12.42 T	TARE
NET	25.55 T	NET
		TONNAGE

10:41AM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G.

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name Trapp

Address 627 Hammonds Ferry Rd

Linthicum MD

Driver Name (Print) Jeff Trapp

Vehicle License No./State E45627E

Truck Number 61

I hereby certify that the above named material was picked up at the generator site listed above.

Jeff Trapp — 8/24/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jeff Trapp — 8/24/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TF-BD-AF-88 (20)

340348

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	34.74 T	GROSS
TARE	12.25 T	TARE
NET	22.49 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Gelgsberry for Lockheed Martin — Signature — 8-24-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: EQT
Address: 3540 Cuba Rd
Bacon MD
Driver Name (Print): R Banks
Vehicle License No./State: MD 24020 89
Truck Number: T-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8-24-15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8-24-15

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036
Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / Receipt Date: 8/24/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 11-BD-AF-89 21

340349

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.98 T	GROSS
TARE	12.27 T	TARE
NET	26.71 T	NET
		TONNAGE

LEACHFIELD 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsborn for Lockheed Martin — 8.24.15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.J.

Address

Driver Name (Print) michael Anderson

Vehicle License No./State 226668 md

Truck Number T-9

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.24.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.24.15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BP-AF 1022

340350

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS 38.00 T — GROSS

TARE 12.13 T — TARE

NET 25.87 T — NET

TONNAGE

12:21PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Hadsberry for Lockheed Martin — Signature — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T & J

Address: Bowie md

Driver Name (Print): Bacon

Vehicle License No./State: 217-65

Truck Number: 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-91 23

340351

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 636-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 636-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.54 T	GROSS
TARE	12.01 T	TARE
NET	22.53 T	NET
		TONNAGE

12:22PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Trainer Goldstern for Lockheed Martin — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: E.O.J

Address: Bowie md

Driver Name (Print): Raynal Crooks

Vehicle License No./State: md 242-57

Truck Number: 75

I hereby certify that the above named material was picked up at the generator site listed above.

8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/24/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: 25
IT-BF-AF-72

340352

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material:
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.15 T	GROSS
TARE	11.79 T	TARE
NET	28.36 T	NET
		TONNAGE

CLOSED 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Guadarrama for Lockheed Martin — Signature — 8-24-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: T.O.J.
Address: Bowie MD

Driver Name (Print): Antonio Onley
Vehicle License No./State: 211 EDA
Truck Number: T-3

I hereby certify that the above named material was picked up at the generator site listed above.

A. Onley — 8/24/15

Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

A. Onley — 8/24/15

Driver Signature / Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / Receipt Date: 8/24/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-NF-94 (26)

340354

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.60 T	GROSS
TARE	12.51 T	TARE
NET	26.09 T	NET
		TONNAGE

01:06PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — [signature] — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.S.

Address: Bowie Md

Driver Name (Print): Thomas Tucker

Vehicle License No./State: 256 ED 83

Truck Number: I-20

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/24/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-96 27

340356

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.62 T	GROSS
TARE	14.49 T	TARE
NET	25.13 T	NET
		TONNAGE

01:12PM (08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — Shipment Date

TRANSPORTER

Transporter Name: L.O.S Trucking

Address: 3540 Crain Hwy
Bowie Md

Driver Name (Print): B. Holland

Vehicle License No./State: 246-D96

Truck Number: L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Holland 8-24-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Holland 8-24-15
Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 28

340353
TT-BD-AF-93

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.99 T	GROSS
TARE	12.10 T	TARE
NET	26.89 T	NET
		TONNAGE

01:14PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Franna Goldsberry for Lockheed Martin — Franna G. — 8-24-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I. O. J

Address Bowie MD

Driver Name (Print) J. Onley

Vehicle License No./State 212 Ed 46

Truck Number I-6

I hereby certify that the above named material was picked up at the generator site listed above.

J. Onley — 8/24/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J. Onley — 8/24/15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/24/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 29
TT-BD-MF-95

340355

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4106

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	35.14 T	GROSS
TARE	11.75 T	TARE
NET	23.39 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — 8-24-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name J.H. Chase
Address Capitol Heights MD
Driver Name (Print) MMC
Vehicle License No./State ZZ5524
Truck Number 71

I hereby certify that the above named material was picked up at the generator site listed above.

8-24-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-24-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine
Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 30
TT-BD-AF-77

340357

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS 36.47 T — GROSS
TARE 12.10 T — TARE
NET 24.37 T — NET
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name
Signature
8-24-15 — Shipment Date

TRANSPORTER

Transporter Name IOS
Address 3540 Crain Hwy
Bowie MD 20716

Driver Name (Print) Craig Wallace
Vehicle License No./State 242E058 MD
Truck Number I-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-24-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-24-15 Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 31
TF-BD-AF-39
340359

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	35.84 T	GROSS
TARE	12.25 T	TARE
NET	23.59 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name
Signature
8/24/15 — Shipment Date

TRANSPORTER

Transporter Name McCraw Trucking
Address 7742 Emerson Rd.
Hyattsville, MD

Driver Name (Print) Joe McCraw
Vehicle License No./State MD 160453
Truck Number 07

I hereby certify that the above named material was picked up at the generator site listed above.

Joe M. — Driver Signature
8/24/15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe M. — Driver Signature
8/24/15 — Delivery Date

DESTINATION

Site Name Brandywine
Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
8/24/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 32

TT-BP-MF-98

340358

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.98 T	GROSS
TARE	11.78 T	TARE
NET	24.20 T	NET
		TONNAGE

01:53PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldberg for Lockheed Martin — Ivanna J. — 8/24/15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie, MD

Driver Name (Print) Bill Banks

Vehicle License No./State 205 EDBB MD

Truck Number (2)

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/24/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/24/15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-MF-201 33

340361

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 636-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.61 T	GROSS
TARE	12.24 T	TARE
NET	28.37 T	NET
		TONNAGE

01:57PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Transporter Name: EOS

Address: 3540 Crain Hwy

Bowie MD

Driver Name (Print): Wendell Barnett

Vehicle License No./State: 226ED67

Truck Number: 18

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/24/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/24/15 Delivery Date

DESTINATION

Site Name: Brandywine Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-100 34

340362

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.49 T	GROSS
TARE	12.61 T	TARE
NET	26.88 T	NET
		TONNAGE

12:00PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

8-24-15 — Shipment Date

TRANSPORTER

Transporter Name: I.O.J

Address: BOWIE, MD

Driver Name (Print): C Coffield

Vehicle License No./State: 253825

Truck Number: I-18

I hereby certify that the above named material was picked up at the generator site listed above.

C Coffield — Driver Signature

8-24-15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Coffield — Driver Signature

8-24-15 — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

8/24/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-MF-1000 35

340360

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	34.56 T	GROSS
TARE	13.44 T	TARE
NET	21.12 T	NET
		TONNAGE

02:05PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Eadsberry for Lockheed Martin — Generator Authorized Agent Name

Signature

8-24-15 — Shipment Date

TRANSPORTER

Transporter Name: TMT 105

Address: 2300 Jackson St

Bowie Md 20721

Driver Name (Print): Travis Meadows

Vehicle License No./State: 166E001

Truck Number: F1

I hereby certify that the above named material was picked up at the generator site listed above.

Travis Meadows 8-24-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Travis Meadows 8-24-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-AF-203 36

340301

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.42 T	GROSS
TARE	12.42 T	TARE
NET	25.00 T	NET
		TONNAGE

02:14PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tracey R Ferguson Agent for Lockheed Martin

Generator Authorized Agent Name — Signature — 8-24-15 Shipment Date

TRANSPORTER

Transporter Name TRAPP

Address 627 Hammonds Ferry Rd

Linthicum MD

Driver Name (Print) Jeff Trapp

Vehicle License No./State E45626D

Truck Number 61

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/24/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/24/15 Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-103 (37)

340300

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	37.57 T	GROSS
TARE	12.80 T	TARE
NET	24.77 T	NET
		TONNAGE

02:32PM 08/24/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-24-15 — Shipment Date

TRANSPORTER

Transporter Name: TRAPP

Address:

Driver Name (Print): M. Williams

Vehicle License No./State: E40409D

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/24/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-NF-104 (1)

340299

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	36.99 T	GROSS
TARE	12.25 T	TARE
NET	24.74 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-25-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name: TOT

Address: 3540 Emby Hog Bowie MD

Driver Name (Print): R Banks

Vehicle License No./State: MD2405B89

Truck Number: T-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date: 8-25-15

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date: 8-25-15

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / Receipt Date: 8/25/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 2
IT-BD-AF-105

340298

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.23 T	GROSS
TARE	12.27 T	TARE
NET	25.96 T	NET
		TONNAGE

09:17AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for
James R Ferguson Lockheed Martin — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I.O.T
Address
Driver Name (Print) Michael
Vehicle License No./State 226568
Truck Number I-9

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.25.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.25.15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-206 3

340297

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
WS-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	38.71 T	GROSS
TARE	12.13 T	TARE
NET	26.58 T	NET
		TONNAGE

10:25AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TOJ

Address: Bowie MD

Driver Name (Print): Bacon

Vehicle License No./State: 217-65

Truck Number: 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-147 4

340296

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.17 T	GROSS
TARE	13.74 T	TARE
NET	25.43 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: E. & J.

Address: Bowie MD

Driver Name (Print): D. Nigus

Vehicle License No./State: 245 53

Truck Number: T-12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/25/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/25/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-108 (5)

340295

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.47 T	GROSS
TARE	14.34 T	TARE
NET	24.13 T	NET
		TONNAGE

CS/AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.J Trucking

Address: 3540 Crain Hwy
Bowie, MD 20721

Driver Name (Print): Jackie McClines

Vehicle License No./State: 258E146

Truck Number: TJ-23

I hereby certify that the above named material was picked up at the generator site listed above.

Jackie McClines — 8/25/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jackie McClines — 8/25/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-AF-109 (6)

340294

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	37.75 T	GROSS
TARE	12.10 T	TARE
NET	25.65 T	NET
		TONNAGE

09:42AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — [signature] — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J

Address: Bowie MD

Driver Name (Print): J. Onley

Vehicle License No./State: 212 6146

Truck Number: I-6

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — 8/25/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — 8/25/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No. 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-110 7

340293

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	31.83 T	GROSS
TARE	12.57 T	TARE
NET	19.26 T	NET
		TONNAGE

08:42AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Mgr Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: Evans Trucking

Address: Mitchellville, MD

Driver Name (Print): James R. Nelson

Vehicle License No./State: 232540

Truck Number: No. 1

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/25/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/25/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-AF-71 (8)

340292

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.30 T	GROSS
TARE	14.49 T	TARE
NET	25.81 T	NET
		TONNAGE

04:47AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson (Agent for Lockheed Martin) — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: LOS Trucking
Address: 3540 Crain Hwy
Bowie Md
Driver Name (Print): B Ashford
Vehicle License No./State: 246 ED 96
Truck Number: L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 8-25-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford 8-25-15
Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036
Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/25/15
Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 9
TT-BD-MF-112

340291

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	37.99 T	GROSS
TARE	11.75 T	TARE
NET	26.24 T	NET
		TONNAGE

07:50AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name J. H. Close
Address Capitol Heights MD
Driver Name (Print) Mike
Vehicle License No./State 222524
Truck Number 7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.25.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.25.15 Delivery Date

DESTINATION

Site Name Brandywine
Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 10
IT-BD-AF-114

340289

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4105

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS 36.27 T — GROSS
TARE 12.25 T — TARE
NET 24.02 T — NET
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson — Agent for Lockheed Martin — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name McCraw Trucking
Address 7742 Emerson Rd.
Hyattsville, MD
Driver Name (Print) Joe McCraw
Vehicle License No./State MD 16453
Truck Number 07

I hereby certify that the above named material was picked up at the generator site listed above.

Joe M. — 8/25/15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe M. — 8/25/15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 11
TT-BD-AF-113

340290

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.83 T	GROSS
TARE	12.61 T	TARE
NET	25.22 T	NET
		TONNAGE

10:00AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for
James R Ferguson Lockheed Martin — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ
Address BOWIE, MD

Driver Name (Print) C Cofield
Vehicle License No./State 253525
Truck Number I-18

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield 8-25-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield 8-25-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15
Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 12

340288

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.28 T	GROSS
TARE	12.24 T	TARE
NET	23.04 T	NET
		TONNAGE

10:07AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for

James R Ferguson — Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T, O, J,

Address 3540 Crain Hwy #208

Bowie, MD 20716

Driver Name (Print) Shawn Miller

Vehicle License No./State 24574 MD

Truck Number T13

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-25-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-25-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 14

340287

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	37.99 T	GROSS
TARE	12.51 T	TARE
NET	25.48 T	NET
		TONNAGE

10:14AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I.D.J.

Address Bowie Md

Driver Name (Print) Thomas Tucker

Vehicle License No./State 256ED83 MD

Truck Number I 20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-24-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-24-15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 16

340286

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 636-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 636-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.94 T	GROSS
TARE	14.33 T	TARE
NET	26.61 T	NET
10:31AM 08/25/2015		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.J.

Address Bowie MD

Driver Name (Print) Joe Olley

Vehicle License No./State 258545 MD

Truck Number I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Olley 8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Olley 8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 17

340284

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number WS-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	35.13 T	GROSS
TARE	12.80 T	TARE
NET	22.33 T	NET
		TONNAGE

8:42AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tonya P. Lawson Agent for Lockheed Martin 8-25-15

Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name TRAPP

Address 627 Hammonds Ferry Rd Linth MD

Driver Name (Print) J. Howell

Vehicle License No./State 645627D

Truck Number 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature 8/25 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature 8/25 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent Signature 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 18

340285

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.63 T	GROSS
TARE	13.44 T	TARE
NET	22.19 T	NET
		TONNAGE

10:44AM 02/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson Lockheed Martin — 2-25-15

Generator Authorized Agent Name / Signature / Shipment Date

TRANSPORTER

Transporter Name TMT/IOS

Address 2300 Jackson St

Bowie Md 20716

Driver Name (Print) Travis Meadows

Vehicle License No./State 166ED01

Truck Number T-1

I hereby certify that the above named material was picked up at the generator site listed above.

Travis Meadows 2-25-15

Driver Signature / Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Travis Meadows 2-25-15

Driver Signature / Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent / Signature / 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number 19

340289

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	40.03 T	GROSS
TARE	12.24 T	TARE
NET	27.79 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Jimmy R. Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address 3540 Crain Hwy

Bowie

Driver Name (Print) Wendell Burnette

Vehicle License No./State 326 ED 67

Truck Number T-8

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/25/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/25/15 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 20

340282

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	35.79 T	GROSS
TARE	12.80 T	TARE
NET	22.99 T	NET
		TONNAGE

11:08AM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin [signature] 8-25-15

Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name TRAPP

Address

Driver Name (Print) M. Williams

Vehicle License No./State E40409D

Truck Number 78

I hereby certify that the above named material was picked up at the generator site listed above.

[signature]

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature]

Driver Signature Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/25/15

Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 11-BO-A- 21

340280

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	35.53 T	GROSS
TARE	12.27 T	TARE
NET	23.26 T	NET
		TONNAGE

12:20PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for

James R. Ferguson Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.J

Address: Bowie, md

Driver Name (Print): michael Anderson

Vehicle License No./State: 226568

Truck Number: T-9

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8.25.15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8.25.15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-A 22

340281

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material		
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated	GROSS 35.17 T	GROSS
		TARE 12.25 T	TARE
		NET 22.92 T	NET
			TONNAGE

12:21PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address 3540 Cabin Hedy Bolone MD

Driver Name (Print) R Banks

Vehicle License No./State MD 240 ED 89

Truck Number TS 11

I hereby certify that the above named material was picked up at the generator site listed above.

8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TC-BD-M - 23

340279

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	37.14 T	GROSS
TARE	12.13 T	TARE
NET	25.01 T	NET
		TONNAGE

12:35PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin
James R. Ferguson — Signature — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: LOJ

Address: Bowie

Driver Name (Print): BACON

Vehicle License No./State: 217-65

Truck Number: 14

I hereby certify that the above named material was picked up at the generator site listed above.

Bacon 8-25-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bacon 8-25-15
Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15
Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-A - 24

340277

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS 41.95 T — GROSS

TARE 14.49 T — TARE

NET 27.46 T — NET

TONNAGE

2:55PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ryan - Asst for Lockheed Martin — Signature — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: LOS Trucking

Address: 3540 Crain Hwy

Issue Md

Driver Name (Print): B Ashford

Vehicle License No./State: 246 596

Truck Number: L-25

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford — 8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford — 8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: II-BD-A + 25

340278

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: **W5-4105**

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	35.77 T	**GROSS**
TARE	13.74 T	**TARE**
NET	22.03 T	**NET**
		TONNAGE

02:04PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James P. Ferguson Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.J

Address: Bowie MD

Driver Name (Print): D Wiggs

Vehicle License No./State: 24553

Truck Number: T-12

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/25/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/25/15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-A 26

340276

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	42.10 T	GROSS
TARE	14.34 T	TARE
NET	27.76 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Signature — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: T.O.J Trucking

Address: 3540 Crain Hwy
Bowie, Md 20721

Driver Name (Print): Jackie McClioues

Vehicle License No./State: 258 EJ 46

Truck Number: T-23

I hereby certify that the above named material was picked up at the generator site listed above.

Jackie McClioues — 8/25/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Jackie McClioues — 8/25/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-A 27

340275

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.66 T	GROSS
TARE	12.02 T	TARE
NET	27.66 T	NET
		TONNAGE

01:34PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Tom R. Ryan Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: DSL

Address: Great Mills MD

Driver Name (Print): Dave

Vehicle License No./State: R2E78

Truck Number: D-7

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-A 28

340274

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number W5-4105

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	38.67 T	GROSS
TARE	12.10 T	TARE
NET	26.57 T	NET
		TONNAGE

01:37PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — Generator Authorized Agent Name

Signature

8-25-15 — Shipment Date

TRANSPORTER

Transporter Name I.O.J

Address Bowie MD

Driver Name (Print) J. Onley

Vehicle License No./State 212 Ed 46

Truck Number I-6

I hereby certify that the above named material was picked up at the generator site listed above.

J. Onley — Driver Signature — 8/25/15 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

J. Onley — Driver Signature — 8/25/15 — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number
TT-BD-A - 29

340273

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	36.01 T	GROSS
TARE	12.25 T	TARE
NET	23.76 T	NET
		TONNAGE

12:44PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin

James P. Ferguson — Signature — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: McCraw Trucking
Address: 7742 Emerson Rd.
Hyattsville, MD

Driver Name (Print): Joe McCraw
Vehicle License No./State: MD 16453
Truck Number: 07

I hereby certify that the above named material was picked up at the generator site listed above.

Joe M. — 8/25/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe M. — 8/25/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine
Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-A 30

340272

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	35.19 T	GROSS
TARE	11.75 T	TARE
NET	23.44 T	NET
		TONNAGE

01:51PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Asst Lab Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name J.H. Chase

Address Capitol Heights MD

Driver Name (Print) Mike

Vehicle License No./State 222524

Truck Number J-1

I hereby certify that the above named material was picked up at the generator site listed above.

8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: IT-BD-N - 31

340271

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	35.63 T	GROSS
TARE	12.61 T	TARE
NET	23.02 T	NET
		TONNAGE

(1:57PM 08/25/2015)

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I. O. J

Address: BOWIE, MD

Driver Name (Print): C Cofield

Vehicle License No./State: 253825

Truck Number:

I hereby certify that the above named material was picked up at the generator site listed above.

C Cofield — 8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

C Cofield — 8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number
TT-BD-A - 32
340270

GENERATOR

Generator Name: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp
Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	34.30 T	GROSS
TARE	12.24 T	TARE
NET	22.06 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for Lockheed Martin
James R Ferguson — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J,
Address: 3540 Crain Hwy #268
Bowie, MD 20716

Driver Name (Print): Sam Miller
Vehicle License No./State: 245 74MD
Truck Number: E13

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-25-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-25-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TT-BD-A - 33

340269

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4106

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS 29.49 T — GROSS

TARE 12.57 T — TARE

NET 16.92 T — NET

02:18PM 08/25/2015 — TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: EVANS

Address: Mitchellville, MD

Driver Name (Print): " James Facg Nelson "

Vehicle License No./State: 232 540

Truck Number: E1

I hereby certify that the above named material was picked up at the generator site listed above.

8/25/15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

8/25/15

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TI-BD-A - 34

340268

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: W5-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	37.62 T	GROSS
TARE	12.51 T	TARE
NET	25.11 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for
Thomas R Ferguson Lockheed Mart — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: I.O.J.

Address: Bowie Md

Driver Name (Print): Thomas Tucker

Vehicle License No./State: 256ED83 md

Truck Number: I-20

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8-25-15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8-25-15 Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number: IT-BD-AF - 35

340265

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 636-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 636-4012

Approval Number: WMS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.48 T	GROSS
TARE	12.24 T	TARE
NET	27.24 T	NET
		TONNAGE

12:51PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Agent for
Thomas R. Ferguson Lockheed Martin — Signature — Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Transporter Name: IOS

Address: 3540 Crain Hwy
Bowie

Driver Name (Print): Wendell Burnette

Vehicle License No./State: 226567

Truck Number: 15

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 8/25/15 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 8/25/15 Delivery Date

DESTINATION

Site Name: Brandywine Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TP-BD-A-36

340266

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	35.42 T	GROSS
TARE	12.80 T	TARE
NET	22.62 T	NET
		TONNAGE

03:07PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R. Ferguson Agent for Lockheed Martin

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name: TRAP

Address: 627 Hammondsburg Rd
Linth Md

Driver Name (Print): J. Harrell

Vehicle License No./State: E456270

Truck Number: 83

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature | Shipment Date: 8/25

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature | Delivery Date: 8/25

DESTINATION

Site Name: Brandywine

Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date: 8/25/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number TT-BD-A - 37

340264

GENERATOR

Generator Name Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number	Description of Material
W5-4105	Non-Regulated Petroleum Contaminated Soil Non DOT/RCRA Regulated

GROSS	34.86 T	GROSS
TARE	13.44 T	TARE
NET	21.42 T	NET
		TONNAGE

03:17PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ryan Asst for Lockheed Martin [signature] 8-25-14

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name TMT/IOJ

Address 2300 Jackson St
Bowie 20716

Driver Name (Print) Travis Meadows

Vehicle License No./State 166ED01

Truck Number T-1

I hereby certify that the above named material was picked up at the generator site listed above.

Travis Meadows 8-25-15

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Travis Meadows 8-25-15

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] 8/25/15

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 38
TT-BD-A

340267

GENERATOR

Generator Name Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River,, MD 21220
Phone No. (610) 656-4012

Shipping Location Lockheed Martin Corp
Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220
Phone No. (610) 656-4012

Approval Number
W5-4106

Description of Material
Non-Regulated Petroleum Contaminated Soil
Non DOT/RCRA Regulated

GROSS	40.24 T	GROSS
TARE	14.33 T	TARE
NET	25.91 T	NET
		TONNAGE

03:19PM 08/25/2015

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Thomas R Ferguson — Agent for Lockheed Martin — 8-25-15
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I O J
Address Bowie MD

Driver Name (Print) Andy
Vehicle License No./State 258-D45
Truck Number I-22

I hereby certify that the above named material was picked up at the generator site listed above.

Joe Alley 8-25-15
Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Joe Alley 8-25-15
Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036
Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 8/25/15 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number: TI-BD-AD-0 39

340263

GENERATOR

Generator Name: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Shipping Location: Lockheed Martin Corp

Address: 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No.: (610) 656-4012

Approval Number: WS-4105

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	38.22 T	GROSS
TARE	12.80 T	TARE
NET	25.42 T	NET
		TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

James R Ferguson Agent for Lockheed Martin — 8-25-15

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name: TRANSPORT

Address:

Driver Name (Print): M. Williams

Vehicle License No./State: 404090

Truck Number: 78

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — Delivery Date

DESTINATION

Site Name: Brandywine — Phone No.: 301-782-3036

Address: 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — Receipt Date: 8/25/15

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL AND DEBRIS FROM STORM DRAIN REPAIR

Manifest Tracking Sheet
Soil Remedial Action - Block D Storm Drain Repair
Lockheed Martin Corproation Middle River Complex
Middle River, Maryland

Block	Area	Driver	Destination Facility	Net Weight (tons)	Net Weight (pounds)	Date
Non-Hazardous[1]						
D	Storm Drain	IOJ Trucking	Soil Safe	29.35	58,700	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	26.7	53,400	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	28.74	57,480	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	29.4	58,800	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	26.48	52,960	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	32.71	65,420	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	30.38	60,760	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	29.09	58,180	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	27.31	54,620	2/17/2016
D	Storm Drain	IOJ Trucking	Soil Safe	26.1	52,200	2/17/2016
			Subtotal	**286.26**	**572,520**	
Hazardous[2]						
D	Storm Drain	B. Dykeman	Clean Harbors	18.25	36,500	12/30/2016
			Subtotal	**18.25**	**36,500**	
			Total	**304.51**	**609,020**	

Note:
1 - Non-hazardous soil was shipped off-site under Soil Safe waste profile #W5-4303
2 - Hazardous soil was transported off-site by Clean Harbors under waste profile CH1119687

Soil Safe

Material Characterization Report
Brandywine, Maryland

Please complete all sections of the form, sign where indicated and return completed form to:

Soil Safe, Inc.
6700 Alexander Bell Dr., Suite 300, Columbia MD 21046
Phone: 410 872-3990 Fax: 410 872-9082

Project Information

Site Name: Lockheed Martin Middle River

Address: 195 Chesapeake Park Plaza Road

City, State Zip: Middle River, MD 21220 | County: Baltimore

Contact: Mike Musheno

Phone: 610-656-4012 | Fax: 410-682-0854

Approximate Quantity: 200 - Block D Storm Drain

Unit of Measure: (Check One) ☐ Drums ☑ Tons ☐ Yards

Type of Contamination: ☑ Gasoline ☑ Diesel ☐ Fuel Oil ☐ Hydraulic Oil ☐ Heating Oil ☐ Kerosene ☐ Jet Fuel ☑ Motor Oil ☑ Used Oil

☐ Other (explain):

Contamination Source: ☐ UST ☐ AST ☐ Spill ☑ Historic

Other (explain): PAHs

Past Use of Site: ☑ Industrial ☐ Commercial ☐ Residential

Describe Past Use of Site: Currently vehicle parking and equipment storage.

Certifications

I, the undersigned, understand that any soil delivered to Soil Safe's facility that is found to be non-conforming will not be accepted for processing. I further understand that the Client shall be solely responsible for its removal. In the event that the Client does not remove the soils in a timely manner, Soil Safe, acting as agent for the Client, may arrange to have the soil removed and disposed of at a properly permitted facility at the Client's sole expense.

I, the undersigned, Certify that, to the best of my knowledge, the soil submitted for acceptance to Soil Safe does not contain Polychlorinated Biphenyl's (PCB's), as defined by 40 CFR761, at levels greater than 5 ppm. I further certify that, to the best of my knowledge, the soil does not contain herbicides, pesticides, or any other constituents at levels which would cause the soil to be characterized as toxic or hazardous as defined by 40 CFR 261. I further certify that all documentation, including all soil analysis, that has been performed on the subject site has been provided to Soil Safe and that the soils have not been or are not presently the focus of a remediation for contaminants other than those that are being disclosed to Soil Safe, Inc.

I, the undersigned, am the generator or a properly authorized agent for the generator. By signing below I certify that I have been granted the authority to execute this document.

★ Print Name: Tom Blackman

Title: Project Lead

Company: Lockheed Martin Corp

Signature: Tom D. Blackman

Jan. 18, 2016

The Brandywine Facility requires the following analysis for approval of material into the facility.

Analysis	Method	Acceptance Criteria
TPH – As appropriate for the type of contamination	8015 / 9071B	Less than 25,000 ppm
BTEX	By an EPA Approved Method	Less than 500 ppm
PCB's	8082	Less than 5 ppm
TCLP Metals *Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver*	1311/6010	Less than RCRA

Note: Other tests may be required depending on type of contamination. Soil not specifically exempted under 40CFR261.4 (b) (10) will require a Full TCLP List instead of TCLP Metals.

- Analytical requirements can be reduced if both of the following conditions are met:
  - A. Soils are impacted with only virgin oil(s).
  - B. One of the following Reduced Analytical Documents is provided: (check the applicable document provided)
    - ☐ MDE UST document completed by MDE Representative
    - ☐ Another Maryland document or form completed by a Department Representative
    - ☐ An MDE equivalent document from another State
    - ☐ Spill response document completed by or for a Government Agency
    - ☐ A UST document completed by a Soil Safe Employee
    - ☐ Single family home affidavit
    - ☐ Commercial transportation spill affidavit

- Reduced analytical are:
  - A. BTEX
  - B. TPH – As appropriate for the type of oil that was discharged.

Site Diagram (please sketch or attach drawing showing source of soil on project site)

Sample and Analysis Certification

I certify that soils were sampled as noted above and the results are representative of the stated volume to be shipped to Soil Safe, Inc.

Signature: _____

THOMAS D. BLACKSTON JAN. 18, 2016

Material Characterization Report
Brandywine, Maryland

Chain of Payment

The information below must be provided for billing purposes and is required for project approval.

Instructions
In order, starting with the generator and ending with Billing Company please provide the chain of payment for the project that you wish to have approved for acceptance by Soil Safe. Please contact Soil Safe with any questions you may have.

Generator Information

Generator: Lockheed Martin Corp
Contact: Mike Musheno
Address: 195 Chesapeake Park Plaza Road
City, State Zip: Middle River, MD 21220
Phone: 610-656-4012
Fax: 410-682-0854

Company: _____
Contact: _____
Address: _____
City, State Zip: _____
Phone: _____
Fax: _____

Company: _____
Contact: _____
Address: _____
City, State Zip: _____
Phone: _____
Fax: _____

*If additional space is needed, please attach a separate sheet providing the information requested.

Billing Information

Company: Elite Environmental
Contact: Kenneth Trent
Address: 1814 Turkey Point Road
City, State Zip: Baltimore, MD 21901
Phone: (877) 202-4448
Fax: _____

Chain of Payment Certification

I, the undersigned verify that the information provided above is true and accurate. The information is complete and follows the Chain of Payment, as it will occur upon invoice for the project. Any changes to this Chain will be reported to Soil Safe as soon as possible.

Print Name: Kenneth Trent
Title: President
Company: Elite Environmental
Signature: [signature]

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH1119687

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #: *MDR000524413* GENERATOR NAME: *Lockheed Martin Middle River*

GENERATOR CODE (Assigned by Clean Harbors): *LO25247* CITY: *Middle River* STATE/PROVINCE: *MD* ZIP/POSTAL CODE: *21220*

ADDRESS: *195 Chesapeake Park Plaza* PHONE: *(301) 548-2209*

CUSTOMER CODE (Assigned by Clean Harbors): *AM1660* CUSTOMER NAME: *American Waste Management Svcs*

ADDRESS: *One American Way* CITY: *Warren* STATE/PROVINCE: *OH* ZIP/POSTAL CODE: *44484*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Hazardous Lead Soil*

PROCESS GENERATING WASTE: **Storm Drain Clean out**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? No

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS: 1 2 3

% BY VOLUME (Approx.): TOP *0.00*, MIDDLE *0.00*, BOTTOM *0.00*

VISCOSITY (If liquid present)
- [ ] 1 - 100 (e.g. Water)
- [ ] 101 - 500 (e.g. Motor Oil)
- [ ] 501 - 10,000 (e.g. Molasses)
- [ ] > 10,000

COLOR: *brown/black*

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- [ ] <= 95 (<=35)
- [ ] 95 - 100 (35-38)
- [ ] 101 - 129 (38-54)
- [ ] >= 130 (>54)

MELTING POINT °F (°C)
- [ ] < 140 (<60)
- [ ] 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- [ ] 1-9%
- [ ] >= 10%

FLASH POINT °F (°C)
- [ ] < 73 (<23)
- [ ] 73 - 100 (23-38)
- [ ] 101 -140 (38-60)
- [ ] 141 -200 (60-93)
- [ ] > 200 (>93)

pH
- [ ] <= 2
- [ ] 2.1 - 6.9
- [x] 7 (Neutral)
- [ ] 7.1 - 12.4
- [ ] >= 12.5

SPECIFIC GRAVITY
- [x] < 0.8 (e.g. Gasoline)
- [ ] 0.8-1.0 (e.g. Ethanol)
- [ ] 1.0 (e.g. Water)
- [ ] 1.0-1.2 (e.g. Antifreeze)
- [ ] > 1.2 (e.g. Methylene Chloride)

ASH
- [x] < 0.1
- [ ] 0.1 - 1.0
- [ ] 1.1 - 5.0
- [ ] 5.1 - 20.0
- [ ] > 20
- [ ] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- [ ] 2,000-5,000 (4.6-11.6)
- [ ] 5,000-10,000 (11.6-23.2)
- [ ] > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
ACENAPHTHENE	34000.000000	--	34000.000000	PPB
ANTHRACENE	4600.0000000	--	4600.000000	PPB
BENZO(A)ANTHRACENE	6200.0000000	--	6200.000000	PPB
BENZO(A)PYRENE	3600.0000000	--	3600.000000	PPB
CHRYSENE	4600.0000000	--	4600.000000	PPB
FLUORANTHENE	32000.000000	--	32000.000000	PPB
FLUORENE	16000.000000	--	16000.000000	PPB
LEAD	140.0000000	--	140.0000000	PPM
NAPTHALENE	6800.0000000	--	6800.000000	PPB
PHENANTHRENE	42000.000000	--	42000.000000	PPB

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS.	YES	☑ NO
I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED	YES	☑ NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE *G44*

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W301*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0	*140.0000*	*140.0000000*	*PPM*	
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2
	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0
	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE

< 1000 PPM

>= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES | EXPLOSIVE | FUMING | OSHA REGULATED CARCINOGENS

POLYMERIZABLE | RADIOACTIVE | REACTIVE MATERIAL | ☑ NONE OF THE ABOVE

F. REGULATORY STATUS

☑ YES NO USEPA HAZARDOUS WASTE?

D008

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: This is subject to LDR.
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES ☑ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (LEAD), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK DRUM
OTHER:
DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: 0 Min -0 Max GAL.

☑ **BULK SOLID**

SHIPMENT UOM: ☑ TON YARD

TONS/YARDS/SHIPMENT: 50.00 Min - 50.00 Max

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

**Pre-qual'd as CCS to Baltimore facility by B. Fornoff.*

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
[signature]	THOMAS D. RUCKMAN	PROJECT LEAD	12/28/2015

This waste profile has been submitted using Clean Harbors' electronic signature system.

Addendum

D. COMPOSITION

CHEMICAL	MIN	--	MAX	UOM
PYRENE	22000.0000000	--	22000.0000000	PPB
SAND	100.0000000	--	100.0000000	%

G. DOT/TDG INFORMATION

Truck 4345

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) BT 1504257543-001 SC PPW 12/4/2015

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MDR000524413
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 008377561 FLE

5. Generator's Name and Mailing Address
Lockheed Martin Middle River
195 Chesapeake Park Plaza
Middle River, MD 21220
Generator's Phone (301) 548-2209

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Service, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors of Baltimore Inc
1910 Russell Street
Baltimore, MD 21230
Facility's Phone: (410) 244-8200
U.S. EPA ID Number: MDD980555189

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (LEAD), 9, PG III	1	CM	25	Y	D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.CH1119687 ERG#171

CHRT 25082

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: James R Ferguson Agent for Lockheed Martin Corp.
Signature: [signature]
Month 12 Day 30 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brad Dykeman
Signature: [signature]
Month 12 Day 30 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H110 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: George E Johnson
Signature: [signature]
Month 12 Day 30 Year 15 / 4 / 16

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

CleanHarbors ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Dec 30, 2015

MANIFEST INFORMATION

Generator : Lockheed Martin Middle River

Address: 195 Chesapeake Park Plaza
Middle River,MD 21220

EPA ID #: M D R 0 0 0 5 2 4 4 1 3

Manifest Tracking Info.
008377561FLE

Sales Order No: 1504257543-001

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH1119687	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D008	Toxicity Characteristic for Lead

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
ACENAPHTHENE	Y	N	N
ANTHRACENE	Y	N	N
BENZ (A) ANTHRACENE	Y	N	N
BENZO (A) PYRENE	Y	N	N
CHRYSENE	Y	N	N
FLUORANTHENE	Y	N	N
FLUORENE	Y	N	N
NAPHTHALENE	Y	N	N
PHENANTHRENE	Y	N	N
PYRENE	Y	N	N

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : [signature]

Title : Geologist

Print Name James R Ferguson Agent for Lockheed Martin Corp.

Date : 12/30/2015

Clean Harbors of Baltimore, Inc.
1910 Russell St.
Baltimore, MD 21230
(410) 244-8200

Date - 12-30-15

Generator -
Lockheed Martin Middle River

H.W.F.

Trailer #/Can # 4345
CHRT25082

Manifest # 008377561 FLE

Drivers Name - Co #
Brad Dykeman

Gross	71780 lbs
TARE	
NET	MT 36500 lbs

SW

Driver ON OFF

Recorded

US ecology

Profile Tracking # _____

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Michigan

Waste Common Name: Hazardous Lead Soil

Section 1 - Generator & Customer Information

Generator EPA ID # MDR-000-524-413

Generator Lockheed Martin Middle River Complex

Facility Address 195 Chesapeake Park Plaza

City Middle River State MD Zip

24-hour Emergency Response Number ( ) -

Mailing Address

City State MD Zip

Generator Contact Michael Musheno

Title Sr. Staff Occ.

Phone (610) 656-4012 Fax (410) 682-0854

E-mail mike.musheno@lmco.com

Internal Use Only: EQ Division _____

EQ Customer No. 848

Invoicing Company AMERICAN WASTE MGMT-OH 5

Address ONE AMERICAN WAY

City WARREN State OH Zip 44484-5555

Country USA

Invoicing Contact CAROL HARPER

Phone (330) 856-8834 Fax (330) 856-8482

Technical Contact Rhonda Gora

Phone (330) 856-8885 Fax (330) 856-8484

Cell Phone ( ) -

E-mail rgora@awmsi.com

Section 2 - Shipping & Packaging Information

2.1) Shipping Volume & Frequency:

a) Volume of Waste to be Shipped: 50 TONS

b) Frequency: ● One Time ○ Month ○ Quarter ○ Year ○ Other

2.2) DOT Information

a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ● Yes ○ No

b) If "Yes", indicate the proper shipping name per 49 CFR 172.101 Hazardous Materials Table:

NA3077, Hazardous waste, solid, n.o.s. (Lead), 9, PGIII, ERG#171

Section 3 - Special Properties

3.1) Color BLACK/BROWN

3.2) Odor ☑ None ☐ Ammonia ☐ Amines ☐ Mercaptans ☐ Sulfur ☐ Organic Acid ☐ Amines/Ammonia ☐ Other:

3.3) Consistency at 70 °F: ☑ Solid ☐ Dust/Powder ☐ Debris ☐ Sludge ☐ Liquid ☐ Gas/Aerosol ☐ Varies

3.4) What is the pH? ☐ ≤2 ☐ 2.1-4.9 ☐ 5-10 ☐ 10.1-12.4 ☐ ≥12.5 ☑ N/A

3.5) What is the flash point? ☐ <90 °F ☐ 90-139 °F ☐ 140-199 °F ☐ ≥200 °F ☑ N/A

3.6) Does this waste exhibit any of the following properties? **(check all that apply)**

☑ **None**	☐ Free Liquids	☐ Metal Fines	☐ Water Reactive	☐ Biohazard
☐ Shock Sensitive	☐ Oily Residue	☐ Dioxins	☐ Furans	☐ Aluminum
☐ Asbestos -non- friable	☐ Asbestos - friable	☐ Other Radioactive	☐ Air Reactive	☐ Isocyanates
☐ Biodegradable Sorbents	☐ Pyrophoric	☐ Reactive Sulfide	☐ Reactive Cyanide	☐ Explosives
☐ Temperature Controlled Organic Peroxide		☐ NORM	☐ TENORM	

Section 4 - Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges or the concentration of each component, either estimated or known.

Soil w/Lead 100. to 100. %

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*

Storm Drain Cleanout

4.3) Are there any known previous handling or treatment issues involving this waste? ○ Yes* ● No

*If yes, describe:

Section 5 - Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules: **Please list applicable waste code(s):**

5.1) Is this waste exempted from RCRA? ○ Yes ● No

If Yes, please provide exemption:

5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ○ Yes ● No

a) For F006-F009, F012, does this come from a generator that conducts a cyanide plating process? ○ Yes ● No

5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ● Yes ○ No D008

5.4) Do any State Specific Hazardous Waste Codes apply? ○ Yes ● No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: G44 EPA Form Code: W301

5.6) Waste Code Determination Is Based On: ☐ Generator Knowledge ☑ Analysis ☐ MSDS

Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

5.7) Does this waste exceed Land Disposal Restriction levels? ● Yes ○ No

a) Is this stream a wastewater (WW) or non-wastewater (NWW)? ○ WW ● NWW

b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49? ○ Yes ○ No

c) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ○ Yes ● No

d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? ● Yes* ○ No

*If Yes, please list: 2 Acenaphthene, 12 Anthracene, 19 Benz(a)anthracene, 22 Benzo(a)pyrene, 52 Chrysene, 112 Fluoranthene, 113 Fluorene, 141 Naphthalene, 166 Phenanthrene, 173 Pyrene

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 - Non-Hazardous Wastes

Please list applicable waste code(s):

6.1) Do any State Specific Non-Hazardous Waste Codes apply? ○ Yes ● No

6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG) ? ○ UNIV ○ RG ● N/A

6.3) Is this waste used oil as defined by 40 CFR Part 279? ○ Yes ● No

a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm? ○ Yes ○ No

b) If yes, what is the source of the halogen content?

○ This is a metalworking oil/fluid containing chlorinated paraffins.
○ This is a used oil contaminated with chlorofluorocarbons from refrigeration units.
○ This oil contains halogenated solvents. List specific solvents:
○ Other, describe:

Section 7 - TSCA Information

7.1) What is the concentration of PCBs in the waste? ☑ None ☐ 0-49 ppm ☐ 50-499 ppm ☐ 500+ ppm

7.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ○ Yes ● No ○ Unknown

If you answered "none" or '0-49 ppm' to 7.1 and "no" to 7.2, please proceed to Section 8.

7.3) Has this waste been processed into a non-liquid form? ○ Yes* ○ No

*If yes, what was the concentration of PCBs prior to processing? ○ 0-499 ppm ○ 500+ ppm

7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ○ Yes ○ No

7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ○ Yes ○ No

7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ○ Yes ○ No ○ N/A

Section 8 - Clean Air Act Information

8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)? ○ Yes ● No

8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)? ○ Yes ● No

8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)? ○ Yes* ● No

*If Yes this document serves as notification that this waste contains chemicals _____, required to be managed in accordance with Part ○ 61 ○ 62 ○ 63 Subpart _____ of NESHAP/MACT standards.

8.4) Does this waste stream contain Benzene? ○ Yes ● No

If you answered "no" to 8.4, please proceed to Section 9.

8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)? ○ Yes ○ No

If Yes, please provide the SIC/NAICS code: _____

If you answered "no" to 8.5, please proceed to Section 9.

8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site? ○ Yes ○ No

If Yes, please specify: _____

8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) ≥ 10 Mg/year? ○ Yes ○ No

8.8) Does the waste contain >10% water? ○ Yes ○ No

8.9) What is the TAB quantity for your facility? _____ Mg/year

8.10) What is the total Benzene concentration in your waste? _____ Percent or _____ ppmw.

Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature Thomas D. Blackman Printed Name THOMAS D. BLACKMAN

Company Cocknells Hastings Corp. Title PROJECT LEAD Date 12-23-2015

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneysÆ fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 8

338716

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~WS-4001~~ WS-4303

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	43.84 T	GROSS
TARE	14.49 T	TARE
NET	29.35 T	NET
		TONNAGE

07:38AM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Golasberry for Lockheed Martin — Ivanna G. — Shipment Date

Generator Authorized Agent Name — Signature

TRANSPORTER

Transporter Name LOS Trucking

Address 3640 Crain Hwy Bowie Md

Driver Name (Print) B Gilford

Vehicle License No./State 246 E796

Truck Number L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Gilford — 2-17-16

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Gilford — 2-17-16

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 2/17/16

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 9

338717

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number 4303
W5-[redacted]

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	39.31 T	GROSS
TARE	12.61 T	TARE
NET	26.70 T	NET
		TONNAGE

09:52AM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna D. — 2-17-16

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name I.O.J.

Address 3540 Crain Hwy #268

Bowie, MD 20716

Driver Name (Print) S. Miller

Vehicle License No./State 25325 MD

Truck Number I-18

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 2-17-16 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 2-17-16 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 2/17/16 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 10

338718

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~WS-4001~~ WS-4303

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	40.84 T	GROSS
TARE	12.10 T	TARE
NET	28.74 T	NET
		TONNAGE

10:00AM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna Goldsberry — 2/17/16

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name T.O.S

Address Bowie MD

Driver Name (Print) T. Onley

Vehicle License No./State 212 EW96

Truck Number T-6

I hereby certify that the above named material was picked up at the generator site listed above.

T. Onley — 2/17/16

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

T. Onley — 2/17/16

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 2/17/16

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 11

338719

GENERATOR

Generator Name LMC (Mike Mushcno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~W5-4004~~ W5-4303

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	41.18 T	GROSS
TARE	11.78 T	TARE
NET	29.40 T	NET
		TONNAGE

10:10AM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — 2/17/16

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOJ

Address Bowie, MD

Driver Name (Print) Bill Banks

Vehicle License No./State 205 ED88 MD

Truck Number 2

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 2/17/16 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 2/17/16 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 2/17/16 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 14

338720

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number
JB ~~WS-4001~~
WS-4303

Description of Material
Non-Regulated Petroleum
Contaminated Soil
Non DOT/RCRA Regulated

GROSS	38.73 T	GROSS
TARE	12.25 T	TARE
NET	26.48 T	NET
		TONNAGE

10:43AM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G. — 2-17-16
Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IEJ

Address 3340 Crain Hwy
Bowie MD

Driver Name (Print) CRAIG

Vehicle License No./State 289 ED 40

Truck Number I-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 2-17-16 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 2-17-16 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 2/17/16 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 22

338721

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.
Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~W5-4001~~ W5-4303

Description of Material

Non-Regulated Petroleum Contaminated Soil

Non DOT/RCRA Regulated

GROSS	47.20 T	GROSS
TARE	14.49 T	TARE
NET	32.71 T	NET
		TONNAGE

01:06PM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin

Generator Authorized Agent Name | Signature | Shipment Date

TRANSPORTER

Transporter Name LOS Trucking

Address 3540 Crain Hwy
Bowie Md

Driver Name (Print) B Ashford

Vehicle License No./State 246ED96

Truck Number L-15

I hereby certify that the above named material was picked up at the generator site listed above.

B Ashford 2-17-16

Driver Signature | Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

B Ashford 2-17-16

Driver Signature | Delivery Date

DESTINATION

Site Name Brandywine

Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent | Signature | Receipt Date 2/17/16

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 26

338722

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~WS-4001~~ WS-4303

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	42.48 T	GROSS
TARE	12.10 T	TARE
NET	30.38 T	NET
		TONNAGE

01:29PM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — Shipment Date

Generator Authorized Agent Name — Signature

TRANSPORTER

Transporter Name L.O.S

Address Bowie MD

Driver Name (Print) T. Conley

Vehicle License No./State 212 GL 46

Truck Number 12

I hereby certify that the above named material was picked up at the generator site listed above.

T. Conley — 2/17/16

Driver Signature — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

T. Conley — 2/17/16

Driver Signature — Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

[signature] — 2/17/16

Name of Authorized Agent — Signature — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 27

338723

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~WS-4001~~ WS-4303

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	41.70 T	GROSS
TARE	12.61 T	TARE
NET	29.09 T	NET
		TONNAGE

01:41PM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Signature — Shipment Date

Generator Authorized Agent Name

TRANSPORTER

Transporter Name T.O.J.

Address 3540 Crain Hwy #268 Bowie, MD 20716

Driver Name (Print) S. Miller

Vehicle License No./State 253 25 MD

Truck Number T-18

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 2-17-16 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 2-17-16 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 2/17/16 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 29

338724

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~W5-4001~~ W5-4503

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	39.09 T	GROSS
TARE	11.78 T	TARE
NET	27.31 T	NET
		TONNAGE

02:21PM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Goldsberry for Lockheed Martin — Ivanna G — Shipment Date

Generator Authorized Agent Name — Signature

TRANSPORTER

Transporter Name IOJ

Address Bowie, MD

Driver Name (Print) Bill Banks

Vehicle License No./State 205 ~~BD88~~ MD

Truck Number

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 2/17/16 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 2/17/16 Delivery Date

DESTINATION

Site Name Brandywine Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 2/17/16 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

Log Number 30

338725

GENERATOR

Generator Name LMC (Mike Musheno)

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Shipping Location Lockheed Martin(LMC)Middle River

Address 195 Chesapeake Park Plaza Rd.

Middle River, MD 21220

Phone No. (610) 656-4012

Approval Number ~~WS-4601~~ WS-4303

Description of Material: Non-Regulated Petroleum Contaminated Soil; Non DOT/RCRA Regulated

GROSS	38.35 T	GROSS
TARE	12.25 T	TARE
NET	26.10 T	NET
		TONNAGE

02:28PM 02/17/2016

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Ivanna Golasperry for Lockheed Martin — Signature — 2-17-16

Generator Authorized Agent Name — Signature — Shipment Date

TRANSPORTER

Transporter Name IOS

Address 3540 Crain Hwy Bowie MD

Driver Name (Print) CRAIG

Vehicle License No./State 28JE040

Truck Number I-11

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature — 2-17-16 Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature — 2-17-16 Delivery Date

DESTINATION

Site Name Brandywine — Phone No. 301-782-3036

Address 16001 Mattawoman Drive, Brandywine, Md. 20613

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent — Signature — 2/17/16 Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

APPENDIX E—SAMPLING DOCUMENTATION

SAMPLING LOG SHEETS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Soil Block: Block D
Excavation Area: AREA A
Sampled By: Josh Mullis
C.O.C. No.: #26 AND #28

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/12/15	1015	D-VB-A-1-2	Stiff clay, red w/white/tan
8/6/15	1405	D-VB-A-2-2	mottles, v. sl. moist, high plast
8/12/15	1020	D-VB-A-3-2	

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/12/15	1000	D-VS-A-1-1	Stiff clay, red w/white/tan/
8/6/15	1400	D-VS-A-2-1	dark mottles, v. sl. moist,
8/12/15	1005	D-VS-A-3-1	high plast
8/12/15	1010	D-VS-A-4-1	

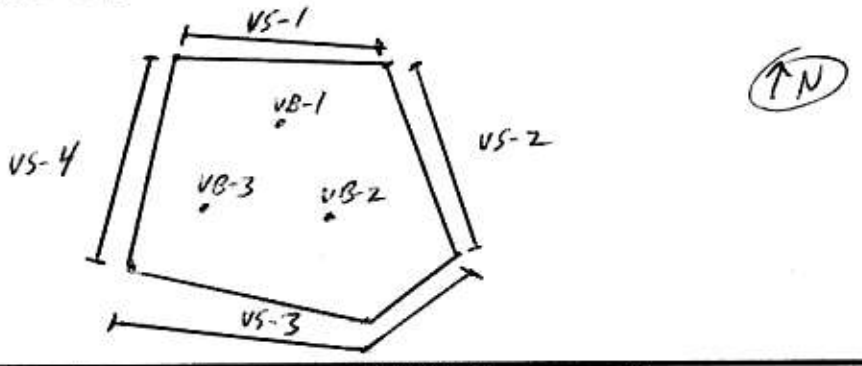
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAH Method 8270D	1-40z glass jar	✓	3 DAY TAT

OBSERVATIONS / NOTES:

- 1' of ASPHALT from ground surface, then clay/sandy clay from 1'-2' bgs.

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: Block D
Excavation Area: AREA B
Sampled By: Josh Mullis
C.O.C. No.: # 26

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/6/15	1015	D-VB-B-1-2	Clay, stiff, high plast, dark red
"	1020	D-VB-B-2-2	w/white/purple/gray mottles,
"	1025	D-VB-B-3-2 ★	v. sl. moist

COMPOSITE SAMPLE DATA

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/6/15	1000	D-VS-B-1-1	Clay, high plast, stiff, dry
"	1005	D-VS-B-2-1	to v. sl. moist, dark red w/
"	~~1155~~ 1200	D-VS-B-3-1	white/purple/gray mottles
"	1010	D-VS-B-4-1	
	~~1015~~		

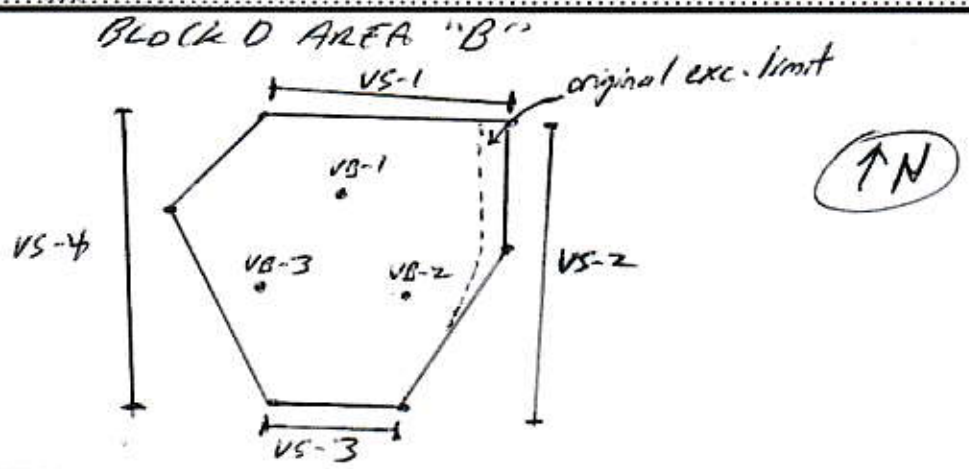
SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
PAH (Method 8270D)	1-4oz glass jar	✓	3 DAY TAT

OBSERVATIONS / NOTES

-Sidewall VS-2 cut 2' more to the east due to 2' of asphalt bgs, chase for 2' east, continue to see 2' asphalt bgs, stop chase

MAP



Circle If Applicable:

MS/MSD	Duplicate ID No.:
—	D-DUP01-080615

Signature(s):

DUP01 GOES WITH D-VB-B-3-2

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: BLOCK D
Excavation Area: AREA C
Sampled By: Josh Mullis
C.O.C. No.: #28

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/12/15	1250	0-VB-C-1-2	Stiff clay, red w/white/tan/
	1255	0-VB-C-2-2	dark mottles, v. sl. moist,
	1300	0-VB-C-3-2	high plast
	1305	0-VB-C-4-2	

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/12/15	1230	0-VS-C-1-1	Stiff clay, red w/white/tan/
	1235	0-VS-C-2-1	dark mottles, v. sl. moist,
	1240	0-VS-C-3-1	high plast
	1245	0-VS-C-4-1 ★	

SAMPLE COLLECTION INFORMATION:

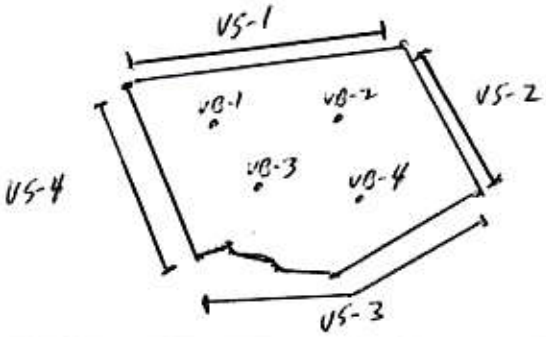
Analysis	Container Requirements	Collected	Other
PAH Method 8270D	1-4oz glass jar	✓	3 DAY TAT

OBSERVATIONS / NOTES:

- 1' ASPHALT from surface, clay/sandy clay from 1'-2' bgs.
- Two 6' wooden telephone/light poles uncovered in ~~SW~~ SW corner of excavation.

MAP

BLOCK D EXCAVATION AREA "C"



Circle if Applicable:
MS/MSD
Duplicate ID No.: 0-DUP02-081215

Signature(s):

GOES WITH 0-VS-C-4-1

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Soil Block: Block D
Excavation Area: AREA D
Sampled By: Josh Mullis
C.O.C. No.: A 35

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/25/15	1420	D-VS-D-1-1	Clay, Stiff, dark red w/white
	1422	D-VS-D-2-1	mottles, high plast
	1424	D-VS-D-3-1	
	1426	D-VS-D-4-1	

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/25/15	1428	D-VB-D-1-2	Clay, Stiff, dark red w/white
	1430	D-VB-D-2-2	mottles, high plast

SAMPLE COLLECTION INFORMATION:

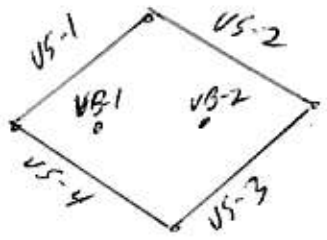
Analysis	Container Requirements	Collected	Other
PAH 8270D	1-4oz glass jar	✓	30 DAY TAT

OBSERVATIONS / NOTES:

- Asphalt area, asphalt approx 4-8" bgs

MAP

Block D AREA "D"



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	D-DUP07-082515

GOES WITH D-VB-D-2-2

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Soil Block: Block D
Excavation Area: AREA E
Sampled By: Josh Mullis
C.O.C. No.: #29

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/13/15	0900	D-VS-E-1-1	Sandy clay, stiff but crumbles,
8/12/15	1500	D-VS-E-2-1	light brown to red/brown, fine sand,
8/13/15	0905	D-VS-E-3-1	v. sl. moist
8/13/15	0910	D-VS-E-4-1	

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/13/15	0915	D-VB-E-1-2	Clay w/ some Sandy Clay,
8/13/15	0920	D-VB-E-2-2	stiff, red w/ white/dark/tan
8/12/15	1505	D-VB-E-3-2	mottles, sl. moist, high plast,
8/13/15	0925	D-VB-E-4-2	Sand is fine grained
8/13/15	0930	D-VB-E-5-2	
8/12/15	1510	D-VB-E-6-2	

SAMPLE COLLECTION INFORMATION:

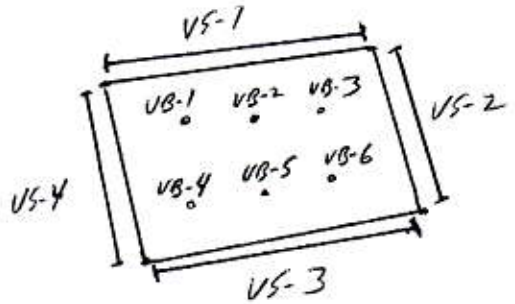
Analysis	Container Requirements	Collected	Other
PAH Method 8270D	1-4oz glass jar	YES	3 DAY TAT

OBSERVATIONS / NOTES:

* SOIL PROFILE LOOKS LIKE FILL MATERIAL W/ GLASS, BRICKS, LOOSE WIRES, ETC
* BULKHEAD TIEBACK SYSTEM LOCATED IN VICINITY OF VB-4, 5, AND 6

MAP

BLOCK D EXCAVATION AREA "E"



Circle if Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: Block D
Excavation Area: F
Sampled By: Josh Mullis
C.O.C. No.: #30

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)

GRAB SAMPLE DATA:

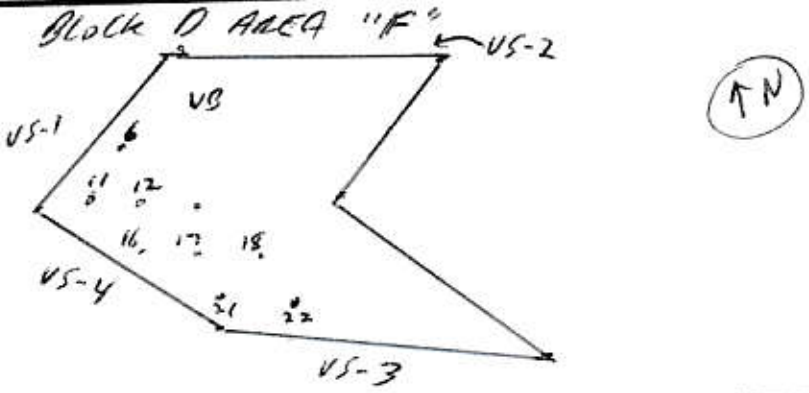
Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/14/15	1140	D-VB-F-6-2	Sandy clay, red/brown, fine
	1142	D-VB-F-11-2	Sand, SL moist, high plast
	1144	D-VB-F-12-2	
	1146	D-VB-F-16-2	
	1148	D-VB-F-17-2	
	1150	D-VB-F-18-2	
	1152	D-VB-F-21-2	
	1154	D-VB-F-22-2	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAH 8270D	1-4oz glass jar	✓	3 DAY TAT

OBSERVATIONS / NOTES:

MAP



Circle if Applicable:
MS/MSD
Duplicate ID No.: D-DUP04-081415

Signature(s):

GOES WITH D-VB-F-21-3

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: D
Excavation Area: F
Sampled By: Josh Mullis / Tom Dickson
C.O.C. No.: #30

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
18 Aug 2015	0930	D-VS-F-4-1	Dry; Reddish brn; Silty Clay; trace gravels/Rocks

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
18 Aug 15	1030	D-VB-F-10-2	Dry, Reddish brn Silty Clay trace Rocks
	1033	D-VB-F-13-2	" " " Sandy Clay w/some Silt
	1035	D-VB-F-14-2	" " Sand w/some clay
	1037	D-VB-F-15-2	" " brn Silty Clay w/some sand
	1040	D-VB-F-19-2	" " " Sandy " w/some Silt

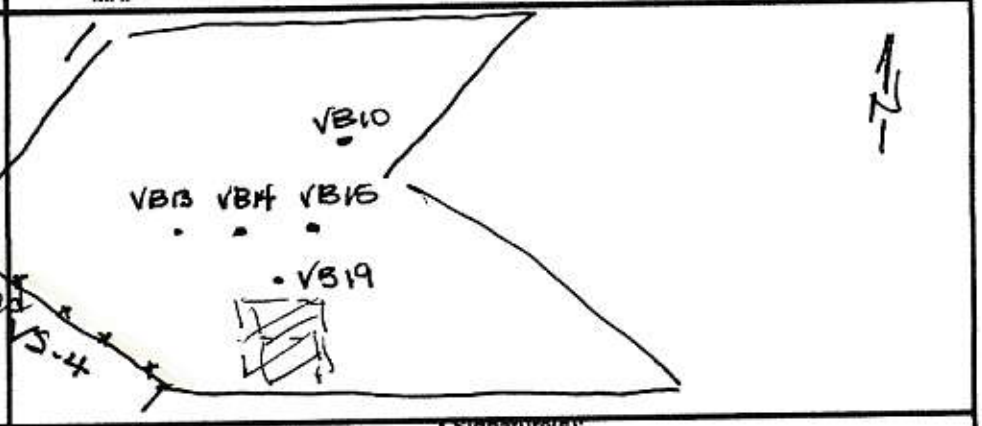
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAHs (8270D)	2oz Glass	✓	

OBSERVATIONS / NOTES:

Block D
Area F - 2'
Clean Fill
Some Roofing Material uncovered
1' additional removed

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Thomas M Dickson

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: Block D
Excavation Area: F
Sampled By: Josh Mullis
C.O.C. No.: #33

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/24/15	1130	D-VS-F-3-1	Sandy clay, high plast, red/brown w/white mottles, sl. moist, fine sand

GRAB SAMPLE DATA:

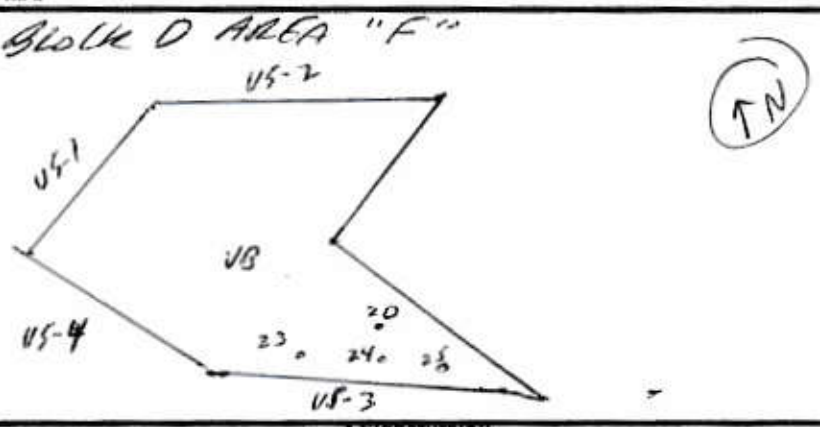
Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/24/15	1200	D-VB-F-20-2	Sandy clay to clay, high plast, dark red, sl. moist, sand is fine to med-grained
	1205	D-VB-F-23-2	
	1210	D-VB-F-24-2	
	1215	D-VB-F-25-2	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAH Method 8270D	1-4oz glass jar	✓	30 day TAT

OBSERVATIONS / NOTES:

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	D-DUP06-082415

Signature(s):

GOES WITH D-VB-F-23-2

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: Block D
Excavation Area: AREA F
Sampled By: Josh Mullis
C.O.C. No.: # 34

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/25/15	1046	D-VS-F-1-1	Sandy clay, dark red w/ white/purple
"	1048	D-VS-F-2-1	mottles, sl. moist, stiff

GRAB SAMPLE DATA:

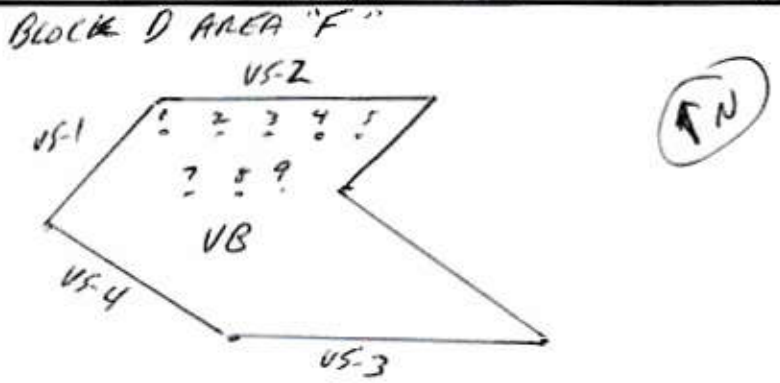
Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/25/15	1030	D-VB-F-1-2	Sandy clay to clay, dark red,
	1032	D-VB-F-2-2	white/purple mottles, stiff,
	1034	D-VB-F-3-2	sl. moist, sand is fine,
	1036	D-VB-F-4-2	high plast
	1038	D-VB-F-5-2	
	1040	D-VB-F-7-2	
	1042	D-VB-F-8-2	
	1044	D-VB-F-9-2	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAH 8270D	1-4oz glass jar	✓	30AY TH

OBSERVATIONS / NOTES:

MAP



Circle if Applicable:
MS/MSD
Duplicate ID No.: —

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 3

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: D
Excavation Area: F1
Sampled By: Josh Mullis
C.O.C. No.: #31

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
19 Aug 2015	1600	D-VS-F1-1-2	Dry; Red ~~Silty~~ Sandy Clay; Trace Roots/Pebbles
19 Aug 2015	1605	D-VS-F1-2-2	" " " " " " "

GRAB SAMPLE DATA:

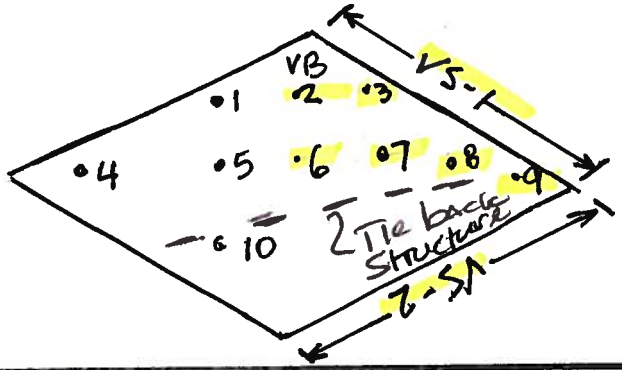
Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
19-Aug 2015	1630	D-VB-F1-2-3	STIFF RED SANDY CLAY
19-Aug 2015	1635	D-VB-F1-3-3	DRY RED SANDY CLAY
19-Aug 2015	1640	D-VB-F1-6-3	STIFF RED SANDY CLAY
19 Aug 2015	1645	D-VB-F1-7-3	DRY RED SANDY CLAY
19 Aug 2015	1650	D-VB-F1-8-3	DAMP RED SANDY CLAY
19 Aug 2015	1655	D-VB-F1-9-3	DRY ORANGE SANDY CLAY

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAHs (8270D)	4-oz Glass Jar	✓	

OBSERVATIONS / NOTES:

MAP



N

Circle if Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):
Thomas M Duchon

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: D
Excavation Area: Area F1
Sampled By: Josh Mullis
C.O.C. No.: #31

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
20 Aug 2015	1200	D-WC-F1-01-3	Tar-like Clay; Sand; pebbles; Creosote odor

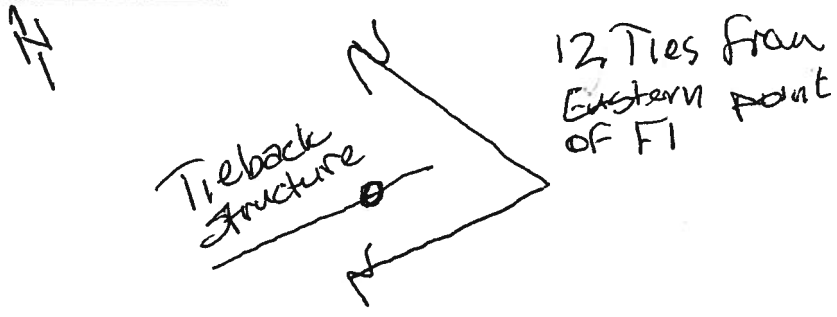
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs, SVOCs, DRO	8oz	✓	
VOCs	2oz	✓	
GRO	2oz	✓	

OBSERVATIONS / NOTES:

Sample Collected Adjacent to Anchor Pile
N: 39° 19' 41"
W: 076° 25' 33"

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Thomas M Drehmer

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: MRC Soil Remediation Blocks D, D Pan, F, G, H
Project No.: 112IC07483

Soil Block: Block D
Excavation Area: F1
Sampled By: Josh Mullis
C.O.C. No.: #33

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

COMPOSITE SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/24/15	1400	D-VS-F1-3-2	clayey Sand, med grained, dark
8/24/15	1015	D-VS-F1-4-2	red, sl. moist, Sand is loose,
		↳ D-DUP05-082415	Sandy clay is high plast

GRAB SAMPLE DATA:

Date	Time	Sample ID	Description (Sand, Silt, Clay, Moisture, etc.)
8/24/15	0910	D-VB-F1-1-3	Sandy clay, red/brown w/white
	0915	D-VB-F1-4-3	mottles, high plast, sl. moist
	0920	D-VB-F1-5-3	to moist, Sand is fine to med
	0925	D-VB-F1-10-3	

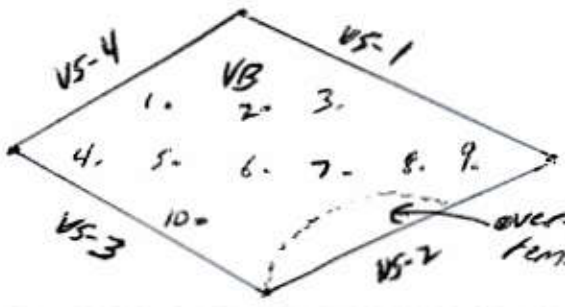
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PAH 8270D	4 oz glass jar	✓	3 DAY TAT

OBSERVATIONS / NOTES:

MAP

Block D AREA "F1" cont.



Circle if Applicable:
MS/MSD

Duplicate ID No.:
D-DUP05-082415

Signature(s):

GOES WITH D-VS-F1-4-2

CHAIN OF CUSTODY FORMS

Chain of Custody Record

#26 016175

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: JOSH MULLIS	Date: 9/6/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412-559-8133	Lab Contact: JOHN. MEYER	Carrier: FEDEX	1 of 1 COCs
Address: 20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — 3 DAY			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
P O # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PAH (8270D)	Sample Specific Notes:
D-VS-B-1-1	9/6/15	1000	C	SOIL	1			X	
D-VS-B-2-1		1005						X	
D-VS-B-3-1		1200						X	
D-VS-B-4-1		1010						X	
D-VB-B-1-2		1015						X	
D-VB-B-2-2		1020						X	
D-VB-B-3-2		1025						X	
D-DUP01-080615	9/6/15	—						X	
D-VS-A-2-1		1400						X	
D-VB-A-2-2		1405						X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES FOR BLOCK D AREAS A AND B

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: Tetra Tech	Date/Time: 9/6/15 1540	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

#27 016176

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: JOSH WHITE	Date: 8/7/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: MCFARREN	Carrier: Fed Ex	1 of 1 COCs
Address: 20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks			Lab Sampling:
Project Name: MRC Block D DTL SHEEN	☐ 1 week 3 DAYS			
Site: MRC - Block D SHEEN SEEP	☐ 2 days			Job / SDG No.:
P O # 112 IC07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PCBs (8082)	Sample Specific Notes:
JAM ~~D-SHEEN~~ D-SEEP-080715	8/7/15	1200	C	SOIL	1			X	

8/7/15

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: SOIL SAMPLE FROM BLOCK D SEEP AREA, 3 DAY RUSH TAT

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TETRA TECH	8/7/15 1315	[signature]	[illegible]	8/7/15 1315
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

CHAIN OF CUSTODY RECORD

#28 1 OF 2

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1000	X		O-VS-A-1-1	1	X						* SAMPLES GO TO
		1005	X		O-VS-A-3-1		X						TESTAMERICA NORTH CANTON
		1010	X		O-VS-A-4-1		X						* 3 DAY TAT *
		1015		X	O-VB-A-1-2		X						* SCOTT NESBIT IS PM.
		1020		X	O-VB-A-3-2		X						
		1230	X		~~O-VB-A-3~~ O-VS-C-1-1		X						
		1235	X		O-VS-C-2-1		X						
		1240	X		O-VS-C-3-1		X						
		1245	X		O-VS-C-4-1		X						
		1250		X	O-VB-C-1-2		X						
		1255		X	O-VB-C-2-2		X						
		1300		X	O-VB-C-3-2		X						
		1305		X	O-VB-C-4-2		X						
		—	X		O-DUP02-081215		X						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	

Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

#28

2 OF 2

PROJECT NO.:	SITE NAME:
112IC07463	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)	REMARKS
MRC	8/12	1500	X		D-VS-E-2-1	1	X	* ALL SAMPLES GO TO TESTAMERICA NORTH CANTON * 3 DAY TAT * SCOTT NESBIT IS P.M.
"	"	1505	X	X	D-VB-E-3-2	"	X	
"	"	1510	X	X	D-VB-E-6-2	"	X	
"	"	—	X	X	D-DUP03-081215	"	X	

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	

Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

#29

PROJECT NO.:	SITE NAME:
112ICO7483	MRC SOIL REMEDY Block D
SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH	

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	0900	X		D-VS-E-1-1	1	X						* ALL SAMPLES GO TO
		0905	X		D-VS-E-3-1		X						TESTAMERICA NORTH CANTON *
		0910	X		D-VS-E-4-1		X						* 3 DAY TAT *
		0915		X	D-VB-E-1-2		X						* P.M. SCOTT NESBIT *
		0920		X	D-VB-E-2-2		X						
		0925		X	D-VB-E-4-2		X						
		0930		X	D-VB-E-5-2		X						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA E	

Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

#30

PROJECT NO.:	SITE NAME:
112IC07483	SMRC SOIL REMEDY Block D
SAMPLERS (SIGNATURE): Josh Mullis	TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
SMRC	8/14/15	1140		X	D-VB-F-6-2	1	X					1	^ TESTAMERICA NORTH CANTON ^
		1142		X	D-VB-F-11-2		X						^ SCOTT NESCIT : P.M.
		1144		X	D-VB-F-12-2		X						^ 3 DAY TAT ^
		1146		X	D-VB-F-16-2		X						
		1148		X	D-VB-F-17-2		X						
		1150		X	D-VB-F-18-2		X						
		1152		X	D-VB-F-21-3		X						
		1154		X	D-VB-F-22-2		X						
		—		X	D-DUP04-081415	1	X						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1600				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: SMRC SOIL REMEDY VERIFICATION SAMPLES Block D AREA F	

Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

TEST AMERICA NORTH CANTON OH

PROJECT NO.:	SITE NAME:
112IC07483	LMC MRC

SAMPLERS (SIGNATURE): Thomas M Duchon

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAHs (8270D)							REMARKS
BLK D Area F	08/18/2015	0930	X		D-VB-F-4-1	1	1							3 DAY TAT
		1030		X	D-VB-F-10-2	1	1							
		1033		X	D-VB-F-13-2	1	1							
		1035		X	D-VB-F-14-2	1	1							
		1037		X	D-VB-F-15-2	1	1							
		1040		X	D-VB-F-19-2	1	1							

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Thomas M Duchon	18/Aug/15 1200	Paul Gayboard			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	

Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

#32

TEST AMERICA, NORTH CANTON OH

PROJECT NO.:	SITE NAME:
112IC07483	Lockheed Martin MRC

SAMPLERS (SIGNATURE): Thomas M Dickson / Scott A. Nett

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAHs 8270D 4oz Glass Jar	VOCs 2oz Glass	GRO 2oz Glass	DRO/PCBs/SVOCs 8oz Glass			REMARKS
BLKD Area F1	19 Aug	1600	X		D-VS-F1-2-2	1	1						3 DAY TAT
		1605	X		D-VS-F1-3-2	1	1						
		1630		X	D-VB-F1-2-3	1	1						
		1635		X	D-VB-F1-3-3	1	1						
		1640		X	D-VB-F1-6-3	1	1						
		1645		X	D-VB-F1-7-3	1	1						
		1650		X	D-VB-F1-8-3	1	1						
		1655		X	D-VB-F1-9-3	1	1						
BLKD Area F1	20 Aug	1200		X	D-WC-F1-01-3	6		2	2	2			5 DAY TAT ; HIGH CONCS!

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Scott N. Nett	8/20/15 2:30	[signature]			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	

Order No. 70440 (0693)

Chain of Custody Record

#33 016179

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FED EX	1 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
PO # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
D-VS-F1-4-2	8/24/15	1015	C	SOIL	1			X	
D-VB-F1-1-3		0910						X	
D-VB-F1-4-3		0915						X	
D-VB-F1-5-3		0920						X	
D-VB-F1-10-3		0925						X	
D-DUP05-082415		—						X	
D-VS-F1-3-2		1400						X	
D-VB-F-20-2		1200						X	
D-VB-F-23-2		1205						X	
D-VB-F-24-2		1210						X	
D-VB-F-25-2		1215						X	
~~D-VS~~ D-VS-F-3-1		1130						X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TETRA TECH	8/24/15 1630			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

#33

016178

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MILLER	Date: 6/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: T. MCFADDEN	Carrier: FEDEX	2 of 2 COCs
Address: 2021 CENTURY BLVD. STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3200	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3299	☐ 2 weeks			Lab Sampling:
Project Name: MAC SOIL REMEDY	☐ 1 week 3 DAYS			
Site: MAC BLOCK D	☐ 2 days			Job / SDG No.:
P O # 112IL07487	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D														Sample Specific Notes:
D-DUP06-082415	6/24/15	—	C	SOIL	1			X														

6/24/15

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MAC SOIL REMEDY VERIFICATION SAMPLES, BLOCK D AREAS F AND F

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	6/24/15 1630			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

#34 016181

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MILLS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: T. MCFARDEN	Carrier: FedEx	1 of 2 COCs
Address: 20251 CENTURY BLVD STE 300	Analysis Turnaround Time			Sampler: MILLS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below			Walk-in Client:
Fax: 301-528-3090	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MRC 3012 REMEDY	☐ 1 week			Job / SDG No.:
Site: MRC BLOCK O AREA F	☐ 2 days			
PO # 112IC07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH (8270D)	VOCs	PCBs	TCLP metals	Hg	Sample Specific Notes:
O-VB-F-1-2	8/25/15	1030	C	SOIL	1			X					#O-VB AND O-VS
O-VB-F-2-2	|	1032	|	|	|			X					SAMPLES 3 DAY TAT
O-VB-F-3-2	|	1034	|	|	|			X					
O-VB-F-4-2	|	1036	|	|	|			X					
O-VB-F-5-2	|	1038	|	|	|			X					
O-VB-F-7-2	|	1040	|	|	|			X					
O-VB-F-8-2	|	1042	|	|	|			X					
O-VB-F-9-2	|	1044	|	|	|			X					
O-VS-F-1-1	|	1046	|	|	|			X					
O-VS-F-2-1	|	1048	|	|	|			X					
WC-OFRAC-082515	|	1020	|	AQ	8	|	|		X	X	X	X	#5 DAY TAT
TB-082515	|	—	|	AQ	2	|	|			X			

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA F (3 DAY TAT)
#WC-OFRAC = WASTE CHARACTERIZATION FOR STORM WATER IN BLOCK O FRAC TANK (5 DAY TAT)

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TETRA TECH	8/25/15 1630			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

#35
016180

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBITT	Site Contact: J. MILLS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: T. MCELROY	Carrier: FEDEX	2 of 2 COCs
Address: 20251 CENTURY BLVD SUITE 200	Analysis Turnaround Time			Sampler: MILLS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3500	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3599	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MAC SOIL REMEDY	☐ 1 week			
Site: MAC BLOCK D AREA D	☐ 2 days			Job / SDG No.:
PO# 112TE07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
D-VS-D-1-1	8/25/15	1420	C	SOIL	1			X	
D-VS-D-2-1	"	1422	"	"	"			X	
D-VS-D-3-1	"	1424	"	"	"			X	
D-VS-D-4-1	"	1426	"	"	"			X	
D-VB-D-1-2	"	1428	"	"	"			X	
D-VB-D-2-2	"	1430	"	"	"			X	
D-DUP07-082515	"	"	"	"	"			X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MAC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA D

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by:	Company: TETRA TECH	Date/Time: 8/25/15 1630	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

APPENDIX F—LABORATORY AND VALIDATION REPORTS

LABORATORY REPORTS

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-54086-1

Job Description: MRC Soil Remedy Block D

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
8/12/2015 4:46 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/12/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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Client Chain of Custody 158

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54086-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/7/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2º C.

Sample D-VS-B-3-1 (240-54086-3) was received in a cracked / broken jar. The sample was transferred to a new container.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-B-1-1 (240-54086-1), D-VS-B-2-1 (240-54086-2), D-VS-B-3-1 (240-54086-3), D-VS-B-4-1 (240-54086-4), D-VB-B-1-2 (240-54086-5), D-VB-B-2-2 (240-54086-6), D-VB-B-3-2 (240-54086-7), D-DUP01-080615 (240-54086-8), D-VS-A-2-1 (240-54086-9) and D-VB-A-2-2 (240-54086-10) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/10/2015 and analyzed on 08/12/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-B-1-1 (240-54086-1), D-VS-B-2-1 (240-54086-2), D-VS-B-3-1 (240-54086-3), D-VS-B-4-1 (240-54086-4), D-VB-B-1-2 (240-54086-5), D-VB-B-2-2 (240-54086-6), D-VB-B-3-2 (240-54086-7), D-DUP01-080615 (240-54086-8), D-VS-A-2-1 (240-54086-9) and D-VB-A-2-2 (240-54086-10) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/07/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD5 240-192437/2 IC Client Sample ID:

Date Analyzed: 08/08/15 15:32 Lab File ID: 50808002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/08/15 16:08
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/08/15 16:08
Pyridine	3.64	Poor chromatography	ulmanm	08/08/15 16:08
Benzoic acid	7.19	Poor chromatography	ulmanm	08/08/15 16:06

Lab Sample ID: STD4 240-192437/3 IC Client Sample ID:

Date Analyzed: 08/08/15 15:57 Lab File ID: 50808003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:14
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:14
Pyridine	3.63	Poor chromatography	ulmanm	08/09/15 16:14
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:14

Lab Sample ID: STD3 240-192437/4 IC Client Sample ID:

Date Analyzed: 08/08/15 16:23 Lab File ID: 50808004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:17
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:17
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:17
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:17

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD2 240-192437/5 IC Client Sample ID:

Date Analyzed: 08/08/15 16:48 Lab File ID: 50808005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:22
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:22
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:22
Di-n-octyl phthalate	13.10	Poor chromatography	ulmanm	08/09/15 16:22
Benzo[g,h,i]perylene	16.86	Poor chromatography	ulmanm	08/09/15 16:22

Lab Sample ID: STD1 240-192437/6 IC Client Sample ID:

Date Analyzed: 08/08/15 17:14 Lab File ID: 50808006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibenz(a,h)anthracene	16.27	Poor chromatography	ulmanm	08/09/15 16:24
Indeno[1,2,3-cd]pyrene	16.27	Poor chromatography	ulmanm	08/09/15 16:24

Lab Sample ID: STD9 240-192437/7 IC Client Sample ID:

Date Analyzed: 08/08/15 17:39 Lab File ID: 50808007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:30
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:30
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:30
Caprolactam	7.83	Poor chromatography	ulmanm	08/09/15 16:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD8 240-192437/8 IC Client Sample ID:

Date Analyzed: 08/08/15 18:05 Lab File ID: 50808008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:33
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:33
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:33
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:33

Lab Sample ID: STD7 240-192437/9 IC Client Sample ID:

Date Analyzed: 08/08/15 18:31 Lab File ID: 50808009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:36
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:36
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:36
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:36

Lab Sample ID: STD6 240-192437/10 ICIS Client Sample ID:

Date Analyzed: 08/08/15 18:56 Lab File ID: 50808010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:41
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:41
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:41
Benzoic acid	7.21	Poor chromatography	ulmanm	08/09/15 16:41
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: ICV 240-192437/11 Client Sample ID:

Date Analyzed: 08/08/15 19:22 Lab File ID: 50808011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:42
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:48
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:42
4-Chloroaniline	7.53	Poor chromatography	ulmanm	08/09/15 16:48
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:48

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192864

Lab Sample ID: CCV 240-192864/2 CCVIS Client Sample ID:

Date Analyzed: 08/12/15 07:43 Lab File ID: 50812002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.93	Poor chromatography	ulmanm	08/12/15 08:14
Pyridine	3.51	Poor chromatography	ulmanm	08/12/15 08:14

Lab Sample ID: 240-54086-1 Client Sample ID: D-VS-B-1-1

Date Analyzed: 08/12/15 09:50 Lab File ID: 50812007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.71	Poor chromatography	ulmanm	08/12/15 10:23
Benzo[a]pyrene	14.15	Poor chromatography	ulmanm	08/12/15 10:23
Indeno[1,2,3-cd]pyrene	16.12	Poor chromatography	ulmanm	08/12/15 10:23
Benzo[g,h,i]perylene	16.70	Poor chromatography	ulmanm	08/12/15 10:23

Lab Sample ID: 240-54086-2 Client Sample ID: D-VS-B-2-1

Date Analyzed: 08/12/15 10:15 Lab File ID: 50812008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.69	Poor chromatography	ulmanm	08/12/15 10:43
Benzo[k]fluoranthene	13.72	Poor chromatography	ulmanm	08/12/15 10:43
Benzo[a]pyrene	14.15	Poor chromatography	ulmanm	08/12/15 10:43
Indeno[1,2,3-cd]pyrene	16.12	Poor chromatography	ulmanm	08/12/15 10:43
Benzo[g,h,i]perylene	16.71	Poor chromatography	ulmanm	08/12/15 10:43

Lab Sample ID: 240-54086-5 Client Sample ID: D-VB-B-1-2

Date Analyzed: 08/12/15 11:32 Lab File ID: 50812011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.70	Poor chromatography	ulmanm	08/12/15 12:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192864

Lab Sample ID: 240-54086-6 Client Sample ID: D-VB-B-2-2

Date Analyzed: 08/12/15 11:57 Lab File ID: 50812012.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.69	Poor chromatography	ulmanm	08/12/15 12:32
Benzo[k]fluoranthene	13.71	Poor chromatography	ulmanm	08/12/15 12:32
Benzo[a]pyrene	14.16	Poor chromatography	ulmanm	08/12/15 12:32
Indeno[1,2,3-cd]pyrene	16.12	Poor chromatography	ulmanm	08/12/15 12:32
Benzo[g,h,i]perylene	16.71	Poor chromatography	ulmanm	08/12/15 12:32

Lab Sample ID: 240-54086-7 Client Sample ID: D-VB-B-3-2

Date Analyzed: 08/12/15 12:23 Lab File ID: 50812013.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	16.11	Poor chromatography	ulmanm	08/12/15 12:58
Benzo[g,h,i]perylene	16.71	Poor chromatography	ulmanm	08/12/15 12:58

Lab Sample ID: 240-54086-8 Client Sample ID: D-DUP01-080615

Date Analyzed: 08/12/15 12:48 Lab File ID: 50812014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[g,h,i]perylene	16.71	Poor chromatography	ulmanm	08/12/15 13:18

Lab Sample ID: 240-54086-10 Client Sample ID: D-VB-A-2-2

Date Analyzed: 08/12/15 13:39 Lab File ID: 50812016.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.70	Poor chromatography	ulmanm	08/12/15 14:10
Benzo[k]fluoranthene	13.71	Poor chromatography	ulmanm	08/12/15 14:10
Indeno[1,2,3-cd]pyrene	16.11	Poor chromatography	ulmanm	08/12/15 14:10
Benzo[g,h,i]perylene	16.71	Poor chromatography	ulmanm	08/12/15 14:10

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54086-1	D-VS-B-1-1	Solid	08/06/2015 1000	08/07/2015 0930
240-54086-2	D-VS-B-2-1	Solid	08/06/2015 1005	08/07/2015 0930
240-54086-3	D-VS-B-3-1	Solid	08/06/2015 1200	08/07/2015 0930
240-54086-4	D-VS-B-4-1	Solid	08/06/2015 1010	08/07/2015 0930
240-54086-5	D-VB-B-1-2	Solid	08/06/2015 1015	08/07/2015 0930
240-54086-6	D-VB-B-2-2	Solid	08/06/2015 1020	08/07/2015 0930
240-54086-7	D-VB-B-3-2	Solid	08/06/2015 1025	08/07/2015 0930
240-54086-8	D-DUP01-080615	Solid	08/06/2015 0000	08/07/2015 0930
240-54086-9	D-VS-A-2-1	Solid	08/06/2015 1400	08/07/2015 0930
240-54086-10	D-VB-A-2-2	Solid	08/06/2015 1405	08/07/2015 0930

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54086-1	**D-VS-B-1-1**					
Acenaphthene		9.8		7.8	ug/Kg	8270D
Benzo[a]anthracene		9.6		7.8	ug/Kg	8270D
Benzo[a]pyrene		10		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		13		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		8.8		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		8.7		7.8	ug/Kg	8270D
Chrysene		17		7.8	ug/Kg	8270D
Fluoranthene		39		7.8	ug/Kg	8270D
Fluorene		29		7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		5.4	J	7.8	ug/Kg	8270D
Naphthalene		8.2		7.8	ug/Kg	8270D
Phenanthrene		51		7.8	ug/Kg	8270D
Pyrene		34		7.8	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54086-2	**D-VS-B-2-1**					
Anthracene		4.5	J	7.8	ug/Kg	8270D
Benzo[a]anthracene		17		7.8	ug/Kg	8270D
Benzo[a]pyrene		14		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		22		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		9.9		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		9.2		7.8	ug/Kg	8270D
Chrysene		24		7.8	ug/Kg	8270D
Fluoranthene		37		7.8	ug/Kg	8270D
Fluorene		4.5	J	7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		7.8		7.8	ug/Kg	8270D
Naphthalene		12		7.8	ug/Kg	8270D
Phenanthrene		21		7.8	ug/Kg	8270D
Pyrene		31		7.8	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54086-3	**D-VS-B-3-1**					
Fluoranthene		6.3	J	7.8	ug/Kg	8270D
Phenanthrene		5.7	J	7.8	ug/Kg	8270D
Pyrene		5.7	J	7.8	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54086-4	**D-VS-B-4-1**					
Acenaphthene		7.0	J	7.8	ug/Kg	8270D
Benzo[a]anthracene		4.3	J	7.8	ug/Kg	8270D
Benzo[b]fluoranthene		4.2	J	7.8	ug/Kg	8270D
Chrysene		4.4	J	7.8	ug/Kg	8270D
Fluoranthene		11		7.8	ug/Kg	8270D
Fluorene		18		7.8	ug/Kg	8270D
Naphthalene		4.6	J	7.8	ug/Kg	8270D
Phenanthrene		25		7.8	ug/Kg	8270D
Pyrene		8.6		7.8	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54086-5	**D-VB-B-1-2**					
Acenaphthene		4.8	J	7.6	ug/Kg	8270D
Benzo[a]anthracene		4.6	J	7.6	ug/Kg	8270D
Benzo[a]pyrene		4.0	J	7.6	ug/Kg	8270D
Benzo[b]fluoranthene		5.9	J	7.6	ug/Kg	8270D
Chrysene		8.9		7.6	ug/Kg	8270D
Fluoranthene		14		7.6	ug/Kg	8270D
Fluorene		4.4	J	7.6	ug/Kg	8270D
Naphthalene		9.8		7.6	ug/Kg	8270D
Phenanthrene		15		7.6	ug/Kg	8270D
Pyrene		10		7.6	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54086-6	**D-VB-B-2-2**					
Acenaphthene		5.8	J	7.8	ug/Kg	8270D
Anthracene		4.7	J	7.8	ug/Kg	8270D
Benzo[a]anthracene		11		7.8	ug/Kg	8270D
Benzo[a]pyrene		9.4		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		11		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		9.3		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		6.9	J	7.8	ug/Kg	8270D
Chrysene		15		7.8	ug/Kg	8270D
Fluoranthene		27		7.8	ug/Kg	8270D
Fluorene		7.1	J	7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		6.1	J	7.8	ug/Kg	8270D
Naphthalene		12		7.8	ug/Kg	8270D
Phenanthrene		23		7.8	ug/Kg	8270D
Pyrene		22		7.8	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54086-7	**D-VB-B-3-2**					
Acenaphthene		15		7.7	ug/Kg	8270D
Anthracene		12		7.7	ug/Kg	8270D
Benzo[a]anthracene		26		7.7	ug/Kg	8270D
Benzo[a]pyrene		25		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		36		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		21		7.7	ug/Kg	8270D
Benzo[k]fluoranthene		11		7.7	ug/Kg	8270D
Chrysene		34		7.7	ug/Kg	8270D
Fluoranthene		55		7.7	ug/Kg	8270D
Fluorene		15		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		16		7.7	ug/Kg	8270D
Naphthalene		17		7.7	ug/Kg	8270D
Phenanthrene		54		7.7	ug/Kg	8270D
Pyrene		46		7.7	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54086-8	**D-DUP01-080615**					
Acenaphthene		12		7.4	ug/Kg	8270D
Anthracene		11		7.4	ug/Kg	8270D
Benzo[a]anthracene		16		7.4	ug/Kg	8270D
Benzo[a]pyrene		13		7.4	ug/Kg	8270D
Benzo[b]fluoranthene		19		7.4	ug/Kg	8270D
Benzo[g,h,i]perylene		10		7.4	ug/Kg	8270D
Benzo[k]fluoranthene		8.4		7.4	ug/Kg	8270D
Chrysene		21		7.4	ug/Kg	8270D
Fluoranthene		43		7.4	ug/Kg	8270D
Fluorene		12		7.4	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		11		7.4	ug/Kg	8270D
Naphthalene		14		7.4	ug/Kg	8270D
Phenanthrene		57		7.4	ug/Kg	8270D
Pyrene		36		7.4	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		9.9		0.10	%	Moisture
240-54086-9	**D-VS-A-2-1**					
Benzo[b]fluoranthene		4.4	J	7.9	ug/Kg	8270D
Fluoranthene		4.7	J	7.9	ug/Kg	8270D
Pyrene		7.3	J	7.9	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54086-10	**D-VB-A-2-2**					
Acenaphthene		18		7.5	ug/Kg	8270D
Anthracene		18		7.5	ug/Kg	8270D
Benzo[a]anthracene		74		7.5	ug/Kg	8270D
Benzo[a]pyrene		80		7.5	ug/Kg	8270D
Benzo[b]fluoranthene		88		7.5	ug/Kg	8270D
Benzo[g,h,i]perylene		58		7.5	ug/Kg	8270D
Benzo[k]fluoranthene		68		7.5	ug/Kg	8270D
Chrysene		81		7.5	ug/Kg	8270D
Dibenz(a,h)anthracene		13		7.5	ug/Kg	8270D
Fluoranthene		120		7.5	ug/Kg	8270D
Fluorene		16		7.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		50		7.5	ug/Kg	8270D
Naphthalene		140		7.5	ug/Kg	8270D
Phenanthrene		71		7.5	ug/Kg	8270D
Pyrene		110		7.5	ug/Kg	8270D
Percent Solids		89		0.10	%	Moisture
Percent Moisture		11		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Method	Analyst	Analyst ID
SW846 8270D	Ulman, Mark	MRU
EPA Moisture	Nolle, Laura C	LCN

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VS-B-1-1

Lab Sample ID: 240-54086-1 Date Sampled: 08/06/2015 1000
Client Matrix: Solid % Moisture: 15.3 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812007.D
Dilution:	1.0			Initial Weight/Volume:	30.16 g
Analysis Date:	08/12/2015 0950			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8		0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		0.92	U	0.92	7.8
Benzo[a]anthracene		9.6		0.74	7.8
Benzo[a]pyrene		10		0.75	7.8
Benzo[b]fluoranthene		13		0.69	7.8
Benzo[g,h,i]perylene		8.8		0.41	7.8
Benzo[k]fluoranthene		8.7		0.80	7.8
Chrysene		17		1.3	7.8
Dibenz(a,h)anthracene		0.78	U	0.78	7.8
Fluoranthene		39		0.65	7.8
Fluorene		29		0.62	7.8
Indeno[1,2,3-cd]pyrene		5.4	J	0.41	7.8
Naphthalene		8.2		0.96	7.8
Phenanthrene		51		0.86	7.8
Pyrene		34		0.52	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	70		36 - 110
Phenol-d5 (Surr)	63		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	61		24 - 110
2-Fluorobiphenyl (Surr)	60		24 - 110
2,4,6-Tribromophenol (Surr)	50		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VS-B-2-1

Lab Sample ID: 240-54086-2 Date Sampled: 08/06/2015 1005
Client Matrix: Solid % Moisture: 15.3 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812008.D
Dilution:	1.0			Initial Weight/Volume:	30.38 g
Analysis Date:	08/12/2015 1015			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.89	U	0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		4.5	J	0.91	7.8
Benzo[a]anthracene		17		0.73	7.8
Benzo[a]pyrene		14		0.75	7.8
Benzo[b]fluoranthene		22		0.69	7.8
Benzo[g,h,i]perylene		9.9		0.41	7.8
Benzo[k]fluoranthene		9.2		0.79	7.8
Chrysene		24		1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		37		0.64	7.8
Fluorene		4.5	J	0.62	7.8
Indeno[1,2,3-cd]pyrene		7.8		0.41	7.8
Naphthalene		12		0.96	7.8
Phenanthrene		21		0.85	7.8
Pyrene		31		0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	75		36 - 110
Phenol-d5 (Surr)	69		26 - 110
Nitrobenzene-d5 (Surr)	59		20 - 110
2-Fluorophenol (Surr)	66		24 - 110
2-Fluorobiphenyl (Surr)	63		24 - 110
2,4,6-Tribromophenol (Surr)	56		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VS-B-3-1

Lab Sample ID: 240-54086-3 Date Sampled: 08/06/2015 1200
Client Matrix: Solid % Moisture: 14.3 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812009.D
Dilution:	1.0			Initial Weight/Volume:	30.04 g
Analysis Date:	08/12/2015 1041			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.89	U	0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		0.91	U	0.91	7.8
Benzo[a]anthracene		0.73	U	0.73	7.8
Benzo[a]pyrene		0.75	U	0.75	7.8
Benzo[b]fluoranthene		0.69	U	0.69	7.8
Benzo[g,h,i]perylene		0.41	U	0.41	7.8
Benzo[k]fluoranthene		0.79	U	0.79	7.8
Chrysene		1.3	U	1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		6.3	J	0.64	7.8
Fluorene		0.62	U	0.62	7.8
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.8
Naphthalene		0.96	U	0.96	7.8
Phenanthrene		5.7	J	0.85	7.8
Pyrene		5.7	J	0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	76		36 - 110
Phenol-d5 (Surr)	73		26 - 110
Nitrobenzene-d5 (Surr)	65		20 - 110
2-Fluorophenol (Surr)	71		24 - 110
2-Fluorobiphenyl (Surr)	67		24 - 110
2,4,6-Tribromophenol (Surr)	65		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VS-B-4-1

Lab Sample ID: 240-54086-4 Date Sampled: 08/06/2015 1010
Client Matrix: Solid % Moisture: 14.4 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812010.D
Dilution:	1.0			Initial Weight/Volume:	30.12 g
Analysis Date:	08/12/2015 1106			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		7.0	J	0.88	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		0.91	U	0.91	7.8
Benzo[a]anthracene		4.3	J	0.73	7.8
Benzo[a]pyrene		0.75	U	0.75	7.8
Benzo[b]fluoranthene		4.2	J	0.69	7.8
Benzo[g,h,i]perylene		0.41	U	0.41	7.8
Benzo[k]fluoranthene		0.79	U	0.79	7.8
Chrysene		4.4	J	1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		11		0.64	7.8
Fluorene		18		0.62	7.8
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.8
Naphthalene		4.6	J	0.95	7.8
Phenanthrene		25		0.85	7.8
Pyrene		8.6		0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	73		36 - 110
Phenol-d5 (Surr)	65		26 - 110
Nitrobenzene-d5 (Surr)	58		20 - 110
2-Fluorophenol (Surr)	65		24 - 110
2-Fluorobiphenyl (Surr)	60		24 - 110
2,4,6-Tribromophenol (Surr)	55		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VB-B-1-2

Lab Sample ID: 240-54086-5 Date Sampled: 08/06/2015 1015
Client Matrix: Solid % Moisture: 11.8 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812011.D
Dilution:	1.0			Initial Weight/Volume:	29.80 g
Analysis Date:	08/12/2015 1132			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		4.8	J	0.87	7.6
Acenaphthylene		0.40	U	0.40	7.6
Anthracene		0.89	U	0.89	7.6
Benzo[a]anthracene		4.6	J	0.72	7.6
Benzo[a]pyrene		4.0	J	0.73	7.6
Benzo[b]fluoranthene		5.9	J	0.67	7.6
Benzo[g,h,i]perylene		0.40	U	0.40	7.6
Benzo[k]fluoranthene		0.78	U	0.78	7.6
Chrysene		8.9		1.3	7.6
Dibenz(a,h)anthracene		0.75	U	0.75	7.6
Fluoranthene		14		0.63	7.6
Fluorene		4.4	J	0.60	7.6
Indeno[1,2,3-cd]pyrene		0.40	U	0.40	7.6
Naphthalene		9.8		0.94	7.6
Phenanthrene		15		0.83	7.6
Pyrene		10		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	69		36 - 110
Phenol-d5 (Surr)	59		26 - 110
Nitrobenzene-d5 (Surr)	54		20 - 110
2-Fluorophenol (Surr)	59		24 - 110
2-Fluorobiphenyl (Surr)	57		24 - 110
2,4,6-Tribromophenol (Surr)	59		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VB-B-2-2

Lab Sample ID: 240-54086-6 Date Sampled: 08/06/2015 1020
Client Matrix: Solid % Moisture: 15.4 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812012.D
Dilution:	1.0			Initial Weight/Volume:	30.24 g
Analysis Date:	08/12/2015 1157			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		5.8	J	0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		4.7	J	0.91	7.8
Benzo[a]anthracene		11		0.74	7.8
Benzo[a]pyrene		9.4		0.75	7.8
Benzo[b]fluoranthene		11		0.69	7.8
Benzo[g,h,i]perylene		9.3		0.41	7.8
Benzo[k]fluoranthene		6.9	J	0.80	7.8
Chrysene		15		1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		27		0.64	7.8
Fluorene		7.1	J	0.62	7.8
Indeno[1,2,3-cd]pyrene		6.1	J	0.41	7.8
Naphthalene		12		0.96	7.8
Phenanthrene		23		0.86	7.8
Pyrene		22		0.52	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	72		36 - 110
Phenol-d5 (Surr)	62		26 - 110
Nitrobenzene-d5 (Surr)	53		20 - 110
2-Fluorophenol (Surr)	61		24 - 110
2-Fluorobiphenyl (Surr)	61		24 - 110
2,4,6-Tribromophenol (Surr)	67		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VB-B-3-2

Lab Sample ID: 240-54086-7 Date Sampled: 08/06/2015 1025
Client Matrix: Solid % Moisture: 12.3 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812013.D
Dilution:	1.0			Initial Weight/Volume:	29.73 g
Analysis Date:	08/12/2015 1223			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		15		0.87	7.7
Acenaphthylene		0.40	U	0.40	7.7
Anthracene		12		0.90	7.7
Benzo[a]anthracene		26		0.72	7.7
Benzo[a]pyrene		25		0.74	7.7
Benzo[b]fluoranthene		36		0.68	7.7
Benzo[g,h,i]perylene		21		0.40	7.7
Benzo[k]fluoranthene		11		0.78	7.7
Chrysene		34		1.3	7.7
Dibenz(a,h)anthracene		0.76	U	0.76	7.7
Fluoranthene		55		0.63	7.7
Fluorene		15		0.61	7.7
Indeno[1,2,3-cd]pyrene		16		0.40	7.7
Naphthalene		17		0.94	7.7
Phenanthrene		54		0.84	7.7
Pyrene		46		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	75		36 - 110
Phenol-d5 (Surr)	66		26 - 110
Nitrobenzene-d5 (Surr)	59		20 - 110
2-Fluorophenol (Surr)	66		24 - 110
2-Fluorobiphenyl (Surr)	65		24 - 110
2,4,6-Tribromophenol (Surr)	71		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-DUP01-080615

Lab Sample ID: 240-54086-8 Date Sampled: 08/06/2015 0000
Client Matrix: Solid % Moisture: 9.9 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812014.D
Dilution:	1.0			Initial Weight/Volume:	29.92 g
Analysis Date:	08/12/2015 1248			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		12		0.85	7.4
Acenaphthylene		0.39	U	0.39	7.4
Anthracene		11		0.87	7.4
Benzo[a]anthracene		16		0.70	7.4
Benzo[a]pyrene		13		0.71	7.4
Benzo[b]fluoranthene		19		0.66	7.4
Benzo[g,h,i]perylene		10		0.39	7.4
Benzo[k]fluoranthene		8.4		0.76	7.4
Chrysene		21		1.2	7.4
Dibenz(a,h)anthracene		0.73	U	0.73	7.4
Fluoranthene		43		0.61	7.4
Fluorene		12		0.59	7.4
Indeno[1,2,3-cd]pyrene		11		0.39	7.4
Naphthalene		14		0.91	7.4
Phenanthrene		57		0.81	7.4
Pyrene		36		0.49	7.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	72		36 - 110
Phenol-d5 (Surr)	59		26 - 110
Nitrobenzene-d5 (Surr)	55		20 - 110
2-Fluorophenol (Surr)	60		24 - 110
2-Fluorobiphenyl (Surr)	59		24 - 110
2,4,6-Tribromophenol (Surr)	57		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VS-A-2-1

Lab Sample ID: 240-54086-9 Date Sampled: 08/06/2015 1400
Client Matrix: Solid % Moisture: 16.0 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812015.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	08/12/2015 1314			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.42	U	0.42	7.9
Anthracene		0.93	U	0.93	7.9
Benzo[a]anthracene		0.75	U	0.75	7.9
Benzo[a]pyrene		0.76	U	0.76	7.9
Benzo[b]fluoranthene		4.4	J	0.70	7.9
Benzo[g,h,i]perylene		0.42	U	0.42	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		1.3	U	1.3	7.9
Dibenz(a,h)anthracene		0.78	U	0.78	7.9
Fluoranthene		4.7	J	0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	7.9
Naphthalene		0.97	U	0.97	7.9
Phenanthrene		0.87	U	0.87	7.9
Pyrene		7.3	J	0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	76		36 - 110
Phenol-d5 (Surr)	69		26 - 110
Nitrobenzene-d5 (Surr)	60		20 - 110
2-Fluorophenol (Surr)	67		24 - 110
2-Fluorobiphenyl (Surr)	64		24 - 110
2,4,6-Tribromophenol (Surr)	41		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Client Sample ID: D-VB-A-2-2

Lab Sample ID: 240-54086-10 Date Sampled: 08/06/2015 1405
Client Matrix: Solid % Moisture: 10.9 Date Received: 08/07/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-192506	Lab File ID:	50812016.D
Dilution:	1.0			Initial Weight/Volume:	29.78 g
Analysis Date:	08/12/2015 1339			Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		18		0.86	7.5
Acenaphthylene		0.40	U	0.40	7.5
Anthracene		18		0.88	7.5
Benzo[a]anthracene		74		0.71	7.5
Benzo[a]pyrene		80		0.72	7.5
Benzo[b]fluoranthene		88		0.67	7.5
Benzo[g,h,i]perylene		58		0.40	7.5
Benzo[k]fluoranthene		68		0.77	7.5
Chrysene		81		1.2	7.5
Dibenz(a,h)anthracene		13		0.75	7.5
Fluoranthene		120		0.62	7.5
Fluorene		16		0.60	7.5
Indeno[1,2,3-cd]pyrene		50		0.40	7.5
Naphthalene		140		0.93	7.5
Phenanthrene		71		0.82	7.5
Pyrene		110		0.50	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	69		36 - 110
Phenol-d5 (Surr)	63		26 - 110
Nitrobenzene-d5 (Surr)	55		20 - 110
2-Fluorophenol (Surr)	63		24 - 110
2-Fluorobiphenyl (Surr)	58		24 - 110
2,4,6-Tribromophenol (Surr)	48		10 - 110

General Chemistry

Client Sample ID: **D-VS-B-1-1**

Lab Sample ID: 240-54086-1 Date Sampled: 08/06/2015 1000
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-B-2-1**

Lab Sample ID: 240-54086-2 Date Sampled: 08/06/2015 1005
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-B-3-1**

Lab Sample ID: 240-54086-3 Date Sampled: 08/06/2015 1200
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-B-4-1**

Lab Sample ID: 240-54086-4 Date Sampled: 08/06/2015 1010
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-B-1-2**

Lab Sample ID: 240-54086-5 Date Sampled: 08/06/2015 1015
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-B-2-2**

Lab Sample ID: 240-54086-6 Date Sampled: 08/06/2015 1020
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-B-3-2**

Lab Sample ID: 240-54086-7 Date Sampled: 08/06/2015 1025
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP01-080615**

Lab Sample ID: 240-54086-8 Date Sampled: 08/06/2015 0000
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	9.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-A-2-1**

Lab Sample ID: 240-54086-9 Date Sampled: 08/06/2015 1400
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-A-2-2**

Lab Sample ID: 240-54086-10 Date Sampled: 08/06/2015 1405
Client Matrix: Solid Date Received: 08/07/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	89		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N
Percent Moisture	11		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-192400	Analysis Date: 08/07/2015 1602						DryWt Corrected: N

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54086-1	D-VS-B-1-1	61	63	56	60	50	70
240-54086-2	D-VS-B-2-1	66	69	59	63	56	75
240-54086-3	D-VS-B-3-1	71	73	65	67	65	76
240-54086-4	D-VS-B-4-1	65	65	58	60	55	73
240-54086-5	D-VB-B-1-2	59	59	54	57	59	69
240-54086-6	D-VB-B-2-2	61	62	53	61	67	72
240-54086-7	D-VB-B-3-2	66	66	59	65	71	75
240-54086-8	D-DUP01-080615	60	59	55	59	57	72
240-54086-9	D-VS-A-2-1	67	69	60	64	41	76
240-54086-10	D-VB-A-2-2	63	63	55	58	48	69
MB 240-192506/23-A		54	59	52	59	38	67
LCS 240-192506/24-A		73	74	73	68	59	85

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Method Blank - Batch: 240-192506

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-192506/23-A	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-192506	Lab File ID:	50812005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/12/2015 0859	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	67	36 - 110
Phenol-d5 (Surr)	59	26 - 110
Nitrobenzene-d5 (Surr)	52	20 - 110
2-Fluorophenol (Surr)	54	24 - 110
2-Fluorobiphenyl (Surr)	59	24 - 110
2,4,6-Tribromophenol (Surr)	38	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Control Sample - Batch: 240-192506

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-192506/24-A	Analysis Batch:	240-192864	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-192506	Lab File ID:	50812006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/12/2015 0924	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/10/2015 0805			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	466	70	38 - 110	
Acenaphthylene	667	456	68	40 - 110	
Anthracene	667	469	70	48 - 110	
Benzo[a]anthracene	667	504	76	50 - 110	
Benzo[a]pyrene	667	530	79	44 - 110	
Benzo[b]fluoranthene	667	545	82	43 - 110	
Benzo[g,h,i]perylene	667	545	82	51 - 110	
Benzo[k]fluoranthene	667	573	86	38 - 105	
Chrysene	667	540	81	50 - 110	
Dibenz(a,h)anthracene	667	532	80	51 - 110	
Fluoranthene	667	538	81	51 - 110	
Fluorene	667	460	69	46 - 110	
Indeno[1,2,3-cd]pyrene	667	517	78	50 - 110	
Naphthalene	667	478	72	36 - 110	
Phenanthrene	667	473	71	49 - 110	
Pyrene	667	538	81	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	85	36 - 110
Phenol-d5 (Surr)	74	26 - 110
Nitrobenzene-d5 (Surr)	73	20 - 110
2-Fluorophenol (Surr)	73	24 - 110
2-Fluorobiphenyl (Surr)	68	24 - 110
2,4,6-Tribromophenol (Surr)	59	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Duplicate - Batch: 240-192400

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54086-1	Analysis Batch:	240-192400	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/07/2015 1602	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	85	85	0.9	20	
Percent Moisture	15	15	5	20	

Duplicate - Batch: 240-192400

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54086-10	Analysis Batch:	240-192400	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/07/2015 1602	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	89	89	0.2	20	
Percent Moisture	11	11	1	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Tetra Tech, Inc. Job Number: 240-54086-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-192506					
LCS 240-192506/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-192506/23-A	Method Blank	T	Solid	3540C	
240-54086-1	D-VS-B-1-1	T	Solid	3540C	
240-54086-2	D-VS-B-2-1	T	Solid	3540C	
240-54086-3	D-VS-B-3-1	T	Solid	3540C	
240-54086-4	D-VS-B-4-1	T	Solid	3540C	
240-54086-5	D-VB-B-1-2	T	Solid	3540C	
240-54086-6	D-VB-B-2-2	T	Solid	3540C	
240-54086-7	D-VB-B-3-2	T	Solid	3540C	
240-54086-8	D-DUP01-080615	T	Solid	3540C	
240-54086-9	D-VS-A-2-1	T	Solid	3540C	
240-54086-10	D-VB-A-2-2	T	Solid	3540C	
Analysis Batch:240-192864					
LCS 240-192506/24-A	Lab Control Sample	T	Solid	8270D	240-192506
MB 240-192506/23-A	Method Blank	T	Solid	8270D	240-192506
240-54086-1	D-VS-B-1-1	T	Solid	8270D	240-192506
240-54086-2	D-VS-B-2-1	T	Solid	8270D	240-192506
240-54086-3	D-VS-B-3-1	T	Solid	8270D	240-192506
240-54086-4	D-VS-B-4-1	T	Solid	8270D	240-192506
240-54086-5	D-VB-B-1-2	T	Solid	8270D	240-192506
240-54086-6	D-VB-B-2-2	T	Solid	8270D	240-192506
240-54086-7	D-VB-B-3-2	T	Solid	8270D	240-192506
240-54086-8	D-DUP01-080615	T	Solid	8270D	240-192506
240-54086-9	D-VS-A-2-1	T	Solid	8270D	240-192506
240-54086-10	D-VB-A-2-2	T	Solid	8270D	240-192506

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54086-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-192400					
240-54086-1	D-VS-B-1-1	T	Solid	Moisture	
240-54086-1DU	Duplicate	T	Solid	Moisture	
240-54086-2	D-VS-B-2-1	T	Solid	Moisture	
240-54086-3	D-VS-B-3-1	T	Solid	Moisture	
240-54086-4	D-VS-B-4-1	T	Solid	Moisture	
240-54086-5	D-VB-B-1-2	T	Solid	Moisture	
240-54086-6	D-VB-B-2-2	T	Solid	Moisture	
240-54086-7	D-VB-B-3-2	T	Solid	Moisture	
240-54086-8	D-DUP01-080615	T	Solid	Moisture	
240-54086-9	D-VS-A-2-1	T	Solid	Moisture	
240-54086-10	D-VB-A-2-2	T	Solid	Moisture	
240-54086-10DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Laboratory Chronicle

Lab ID: 240-54086-1 **Client ID: D-VS-B-1-1**

Sample Date/Time: 08/06/2015 10:00 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-1-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-1-A		240-192864	240-192506	08/12/2015 09:50	1	TAL CAN	MRU
A:Moisture	240-54086-A-1		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-1 DU **Client ID: D-VS-B-1-1**

Sample Date/Time: 08/06/2015 10:00 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54086-A-1 DU		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-2 **Client ID: D-VS-B-2-1**

Sample Date/Time: 08/06/2015 10:05 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-2-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-2-A		240-192864	240-192506	08/12/2015 10:15	1	TAL CAN	MRU
A:Moisture	240-54086-A-2		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-3 **Client ID: D-VS-B-3-1**

Sample Date/Time: 08/06/2015 12:00 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-3-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-3-A		240-192864	240-192506	08/12/2015 10:41	1	TAL CAN	MRU
A:Moisture	240-54086-A-3		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-4 **Client ID: D-VS-B-4-1**

Sample Date/Time: 08/06/2015 10:10 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-4-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-4-A		240-192864	240-192506	08/12/2015 11:06	1	TAL CAN	MRU
A:Moisture	240-54086-A-4		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Laboratory Chronicle

Lab ID: 240-54086-5 **Client ID: D-VB-B-1-2**

Sample Date/Time: 08/06/2015 10:15 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-5-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-5-A		240-192864	240-192506	08/12/2015 11:32	1	TAL CAN	MRU
A:Moisture	240-54086-A-5		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-6 **Client ID: D-VB-B-2-2**

Sample Date/Time: 08/06/2015 10:20 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-6-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-6-A		240-192864	240-192506	08/12/2015 11:57	1	TAL CAN	MRU
A:Moisture	240-54086-A-6		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-7 **Client ID: D-VB-B-3-2**

Sample Date/Time: 08/06/2015 10:25 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-7-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-7-A		240-192864	240-192506	08/12/2015 12:23	1	TAL CAN	MRU
A:Moisture	240-54086-A-7		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-8 **Client ID: D-DUP01-080615**

Sample Date/Time: 08/06/2015 00:00 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-8-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-8-A		240-192864	240-192506	08/12/2015 12:48	1	TAL CAN	MRU
A:Moisture	240-54086-A-8		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-9 **Client ID: D-VS-A-2-1**

Sample Date/Time: 08/06/2015 14:00 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-9-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-9-A		240-192864	240-192506	08/12/2015 13:14	1	TAL CAN	MRU
A:Moisture	240-54086-A-9		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Laboratory Chronicle

Lab ID: 240-54086-10 **Client ID: D-VB-A-2-2**

Sample Date/Time: 08/06/2015 14:05 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54086-B-10-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	240-54086-B-10-A		240-192864	240-192506	08/12/2015 13:39	1	TAL CAN	MRU
A:Moisture	240-54086-A-10		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: 240-54086-10 DU **Client ID: D-VB-A-2-2**

Sample Date/Time: 08/06/2015 14:05 Received Date/Time: 08/07/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54086-A-10 DU		240-192400		08/07/2015 16:02	1	TAL CAN	LCN

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	MB 240-192506/23-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	MB 240-192506/23-A		240-192864	240-192506	08/12/2015 08:59	1	TAL CAN	MRU

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	LCS 240-192506/24-A		240-192864	240-192506	08/10/2015 08:05	1	TAL CAN	SDE
A:8270D	LCS 240-192506/24-A		240-192864	240-192506	08/12/2015 09:24	1	TAL CAN	MRU

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00027	06/10/16	07/23/15	MEOH, Lot 0000085233	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00048	08/31/16	08/03/15	MEOH, Lot 147358	200 mL	EXLIST1_S1_00003	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.EXLIST1_S1_00003	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00025	06/10/16	07/11/15	MEOH, Lot 0000085233	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST2 L6 W_00008	12/31/15	05/14/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54086-1
Project/Site: MRC Soil Remedy Block D

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-B-1-1	240-54086-1	61	63	56	60	50	70
D-VS-B-2-1	240-54086-2	66	69	59	63	56	75
D-VS-B-3-1	240-54086-3	71	73	65	67	65	76
D-VS-B-4-1	240-54086-4	65	65	58	60	55	73
D-VB-B-1-2	240-54086-5	59	59	54	57	59	69
D-VB-B-2-2	240-54086-6	61	62	53	61	67	72
D-VB-B-3-2	240-54086-7	66	66	59	65	71	75
D-DUP01-080615	240-54086-8	60	59	55	59	57	72
D-VS-A-2-1	240-54086-9	67	69	60	64	41	76
D-VB-A-2-2	240-54086-10	63	63	55	58	48	69
	MB 240-192506/23-A	54	59	52	59	38	67
	LCS 240-192506/24-A	73	74	73	68	59	85

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50812006.D

Lab ID: LCS 240-192506/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	466	70	38-110	
Acenaphthylene	667	456	68	40-110	
Anthracene	667	469	70	48-110	
Benzo[a]anthracene	667	504	76	50-110	
Benzo[a]pyrene	667	530	79	44-110	
Benzo[b]fluoranthene	667	545	82	43-110	
Benzo[g,h,i]perylene	667	545	82	51-110	
Benzo[k]fluoranthene	667	573	86	38-105	
Chrysene	667	540	81	50-110	
Dibenz(a,h)anthracene	667	532	80	51-110	
Fluoranthene	667	538	81	51-110	
Fluorene	667	460	69	46-110	
Indeno[1,2,3-cd]pyrene	667	517	78	50-110	
Naphthalene	667	478	72	36-110	
Phenanthrene	667	473	71	49-110	
Pyrene	667	538	81	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50812005.D Lab Sample ID: MB 240-192506/23-A

Matrix: Solid Date Extracted: 08/10/2015 08:05

Instrument ID: A4HP9 Date Analyzed: 08/12/2015 08:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-192506/24-A	50812006.D	08/12/2015 09:24
D-VS-B-1-1	240-54086-1	50812007.D	08/12/2015 09:50
D-VS-B-2-1	240-54086-2	50812008.D	08/12/2015 10:15
D-VS-B-3-1	240-54086-3	50812009.D	08/12/2015 10:41
D-VS-B-4-1	240-54086-4	50812010.D	08/12/2015 11:06
D-VB-B-1-2	240-54086-5	50812011.D	08/12/2015 11:32
D-VB-B-2-2	240-54086-6	50812012.D	08/12/2015 11:57
D-VB-B-3-2	240-54086-7	50812013.D	08/12/2015 12:23
D-DUP01-080615	240-54086-8	50812014.D	08/12/2015 12:48
D-VS-A-2-1	240-54086-9	50812015.D	08/12/2015 13:14
D-VB-A-2-2	240-54086-10	50812016.D	08/12/2015 13:39

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50812001.D DFTPP Injection Date: 08/12/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:21

Analysis Batch No.: 192864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.7	
70	Less than 2.0% of mass 69	0.3	(0.3)1
127	25.0 - 75.0% of mass 198	59.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	53.8	
443	15.0 - 24.0% of mass 442	10.2	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-192864/2	50812002.D	08/12/2015	07:43
	CCV 240-192864/3	50812003.D	08/12/2015	08:09
	MB 240-192506/23-A	50812005.D	08/12/2015	08:59
	LCS 240-192506/24-A	50812006.D	08/12/2015	09:24
D-VS-B-1-1	240-54086-1	50812007.D	08/12/2015	09:50
D-VS-B-2-1	240-54086-2	50812008.D	08/12/2015	10:15
D-VS-B-3-1	240-54086-3	50812009.D	08/12/2015	10:41
D-VS-B-4-1	240-54086-4	50812010.D	08/12/2015	11:06
D-VB-B-1-2	240-54086-5	50812011.D	08/12/2015	11:32
D-VB-B-2-2	240-54086-6	50812012.D	08/12/2015	11:57
D-VB-B-3-2	240-54086-7	50812013.D	08/12/2015	12:23
D-DUP01-080615	240-54086-8	50812014.D	08/12/2015	12:48
D-VS-A-2-1	240-54086-9	50812015.D	08/12/2015	13:14
D-VB-A-2-2	240-54086-10	50812016.D	08/12/2015	13:39

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-192864/2 CCVIS		121233	6.33	448073	7.45	251049	8.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-192864/2 CCVIS		372057	10.22	460856	12.50	399334	14.23

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: CCV 240-192864/2 Date Analyzed: 08/12/2015 07:43

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50812002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		121233	6.33	448073	7.45	251049	8.95
UPPER LIMIT		242466	6.83	896146	7.95	502098	9.45
LOWER LIMIT		60617	5.83	224037	6.95	125525	8.45
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-192864/3		128488	6.33	485018	7.45	270251	8.95
MB 240-192506/23-A		99989	6.33	404507	7.45	225948	8.95
LCS 240-192506/24-A		93935	6.33	367642	7.45	220989	8.95
240-54086-1	D-VS-B-1-1	102855	6.33	386751	7.45	227405	8.95
240-54086-2	D-VS-B-2-1	102822	6.33	395390	7.45	234479	8.95
240-54086-3	D-VS-B-3-1	101745	6.33	403968	7.45	234749	8.95
240-54086-4	D-VS-B-4-1	113623	6.33	445543	7.45	257957	8.95
240-54086-5	D-VB-B-1-2	115872	6.33	433752	7.45	255504	8.95
240-54086-6	D-VB-B-2-2	112276	6.33	436043	7.45	242975	8.95
240-54086-7	D-VB-B-3-2	113519	6.33	442628	7.45	250633	8.95
240-54086-8	D-DUP01-080615	117425	6.33	433933	7.45	254729	8.95
240-54086-9	D-VS-A-2-1	115958	6.33	455803	7.45	263419	8.95
240-54086-10	D-VB-A-2-2	114748	6.33	454698	7.45	269019	8.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: CCV 240-192864/2 Date Analyzed: 08/12/2015 07:43

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50812002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		372057	10.22	460856	12.50	399334	14.23
UPPER LIMIT		744114	10.72	921712	13.00	798668	14.73
LOWER LIMIT		186029	9.72	230428	12.00	199667	13.73
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-192864/3		453654	10.22	514869	12.49	398658	14.23
MB 240-192506/23-A		374924	10.22	409041	12.50	320472	14.24
LCS 240-192506/24-A		347000	10.22	401424	12.50	323065	14.23
240-54086-1	D-VS-B-1-1	385349	10.22	427792	12.49	360978	14.23
240-54086-2	D-VS-B-2-1	388792	10.22	426850	12.50	379402	14.23
240-54086-3	D-VS-B-3-1	402424	10.22	446722	12.49	381540	14.23
240-54086-4	D-VS-B-4-1	418969	10.22	482447	12.50	439640	14.23
240-54086-5	D-VB-B-1-2	414181	10.22	466308	12.49	419233	14.23
240-54086-6	D-VB-B-2-2	416665	10.22	466223	12.50	428284	14.23
240-54086-7	D-VB-B-3-2	420333	10.22	483778	12.50	457480	14.23
240-54086-8	D-DUP01-080615	432391	10.22	473943	12.50	455861	14.23
240-54086-9	D-VS-A-2-1	434205	10.22	480251	12.50	455248	14.23
240-54086-10	D-VB-A-2-2	434035	10.22	475267	12.50	430633	14.23

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-1-1 | Lab Sample ID: 240-54086-1

Matrix: Solid | Lab File ID: 50812007.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.16(g) | Date Analyzed: 08/12/2015 09:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.8		7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.92	U	7.8	0.92
56-55-3	Benzo[a]anthracene	9.6		7.8	0.74
50-32-8	Benzo[a]pyrene	10		7.8	0.75
205-99-2	Benzo[b]fluoranthene	13		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	8.8		7.8	0.41
207-08-9	Benzo[k]fluoranthene	8.7		7.8	0.80
218-01-9	Chrysene	17		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.8	0.78
206-44-0	Fluoranthene	39		7.8	0.65
86-73-7	Fluorene	29		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	5.4	J	7.8	0.41
91-20-3	Naphthalene	8.2		7.8	0.96
85-01-8	Phenanthrene	51		7.8	0.86
129-00-0	Pyrene	34		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		36-110
4165-62-2	Phenol-d5 (Surr)	63		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	50		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-2-1 | Lab Sample ID: 240-54086-2

Matrix: Solid | Lab File ID: 50812008.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:05

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.38(g) | Date Analyzed: 08/12/2015 10:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.5	J	7.8	0.91
56-55-3	Benzo[a]anthracene	17		7.8	0.73
50-32-8	Benzo[a]pyrene	14		7.8	0.75
205-99-2	Benzo[b]fluoranthene	22		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	9.9		7.8	0.41
207-08-9	Benzo[k]fluoranthene	9.2		7.8	0.79
218-01-9	Chrysene	24		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	37		7.8	0.64
86-73-7	Fluorene	4.5	J	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	7.8		7.8	0.41
91-20-3	Naphthalene	12		7.8	0.96
85-01-8	Phenanthrene	21		7.8	0.85
129-00-0	Pyrene	31		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	56		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-3-1 | Lab Sample ID: 240-54086-3

Matrix: Solid | Lab File ID: 50812009.D

Analysis Method: 8270D | Date Collected: 08/06/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.04(g) | Date Analyzed: 08/12/2015 10:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	0.69	U	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	6.3	J	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	5.7	J	7.8	0.85
129-00-0	Pyrene	5.7	J	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	73		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	71		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	65		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-4-1 | Lab Sample ID: 240-54086-4

Matrix: Solid | Lab File ID: 50812010.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:10

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.12(g) | Date Analyzed: 08/12/2015 11:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.0	J	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	4.3	J	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	4.2	J	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	4.4	J	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	11		7.8	0.64
86-73-7	Fluorene	18		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	4.6	J	7.8	0.95
85-01-8	Phenanthrene	25		7.8	0.85
129-00-0	Pyrene	8.6		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	65		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-1-2 | Lab Sample ID: 240-54086-5

Matrix: Solid | Lab File ID: 50812011.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.80(g) | Date Analyzed: 08/12/2015 11:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.8	J	7.6	0.87
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	0.89	U	7.6	0.89
56-55-3	Benzo[a]anthracene	4.6	J	7.6	0.72
50-32-8	Benzo[a]pyrene	4.0	J	7.6	0.73
205-99-2	Benzo[b]fluoranthene	5.9	J	7.6	0.67
191-24-2	Benzo[g,h,i]perylene	0.40	U	7.6	0.40
207-08-9	Benzo[k]fluoranthene	0.78	U	7.6	0.78
218-01-9	Chrysene	8.9		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	14		7.6	0.63
86-73-7	Fluorene	4.4	J	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	0.40	U	7.6	0.40
91-20-3	Naphthalene	9.8		7.6	0.94
85-01-8	Phenanthrene	15		7.6	0.83
129-00-0	Pyrene	10		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	59		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-2-2 | Lab Sample ID: 240-54086-6

Matrix: Solid | Lab File ID: 50812012.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:20

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.24(g) | Date Analyzed: 08/12/2015 11:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.8	J	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.7	J	7.8	0.91
56-55-3	Benzo[a]anthracene	11		7.8	0.74
50-32-8	Benzo[a]pyrene	9.4		7.8	0.75
205-99-2	Benzo[b]fluoranthene	11		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	9.3		7.8	0.41
207-08-9	Benzo[k]fluoranthene	6.9	J	7.8	0.80
218-01-9	Chrysene	15		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	27		7.8	0.64
86-73-7	Fluorene	7.1	J	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	6.1	J	7.8	0.41
91-20-3	Naphthalene	12		7.8	0.96
85-01-8	Phenanthrene	23		7.8	0.86
129-00-0	Pyrene	22		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	61		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-3-2 | Lab Sample ID: 240-54086-7

Matrix: Solid | Lab File ID: 50812013.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:25

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.73(g) | Date Analyzed: 08/12/2015 12:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.7	0.87
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	12		7.7	0.90
56-55-3	Benzo[a]anthracene	26		7.7	0.72
50-32-8	Benzo[a]pyrene	25		7.7	0.74
205-99-2	Benzo[b]fluoranthene	36		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	21		7.7	0.40
207-08-9	Benzo[k]fluoranthene	11		7.7	0.78
218-01-9	Chrysene	34		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	55		7.7	0.63
86-73-7	Fluorene	15		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	16		7.7	0.40
91-20-3	Naphthalene	17		7.7	0.94
85-01-8	Phenanthrene	54		7.7	0.84
129-00-0	Pyrene	46		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-DUP01-080615 | Lab Sample ID: 240-54086-8

Matrix: Solid | Lab File ID: 50812014.D

Analysis Method: 8270D | Date Collected: 08/06/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.92(g) | Date Analyzed: 08/12/2015 12:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	12		7.4	0.85
208-96-8	Acenaphthylene	0.39	U	7.4	0.39
120-12-7	Anthracene	11		7.4	0.87
56-55-3	Benzo[a]anthracene	16		7.4	0.70
50-32-8	Benzo[a]pyrene	13		7.4	0.71
205-99-2	Benzo[b]fluoranthene	19		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	10		7.4	0.39
207-08-9	Benzo[k]fluoranthene	8.4		7.4	0.76
218-01-9	Chrysene	21		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	0.73	U	7.4	0.73
206-44-0	Fluoranthene	43		7.4	0.61
86-73-7	Fluorene	12		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	11		7.4	0.39
91-20-3	Naphthalene	14		7.4	0.91
85-01-8	Phenanthrene	57		7.4	0.81
129-00-0	Pyrene	36		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	57		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-A-2-1 | Lab Sample ID: 240-54086-9

Matrix: Solid | Lab File ID: 50812015.D

Analysis Method: 8270D | Date Collected: 08/06/2015 14:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.10(g) | Date Analyzed: 08/12/2015 13:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	4.4	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	4.7	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	7.3	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-A-2-2 | Lab Sample ID: 240-54086-10

Matrix: Solid | Lab File ID: 50812016.D

Analysis Method: 8270D | Date Collected: 08/06/2015 14:05

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.78(g) | Date Analyzed: 08/12/2015 13:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	18		7.5	0.86
208-96-8	Acenaphthylene	0.40	U	7.5	0.40
120-12-7	Anthracene	18		7.5	0.88
56-55-3	Benzo[a]anthracene	74		7.5	0.71
50-32-8	Benzo[a]pyrene	80		7.5	0.72
205-99-2	Benzo[b]fluoranthene	88		7.5	0.67
191-24-2	Benzo[g,h,i]perylene	58		7.5	0.40
207-08-9	Benzo[k]fluoranthene	68		7.5	0.77
218-01-9	Chrysene	81		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	13		7.5	0.75
206-44-0	Fluoranthene	120		7.5	0.62
86-73-7	Fluorene	16		7.5	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	50		7.5	0.40
91-20-3	Naphthalene	140		7.5	0.93
85-01-8	Phenanthrene	71		7.5	0.82
129-00-0	Pyrene	110		7.5	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		36-110
4165-62-2	Phenol-d5 (Surr)	63		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	58		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	48		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID (1): CCV 240-192864/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/12/2015 07:43

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	5.11	100.0
Phenol-d5 (Surr)	5.97	100.0
Nitrobenzene-d5 (Surr)	6.81	100.0
Naphthalene	7.47	100.0
2-Fluorobiphenyl (Surr)	8.35	100.0
Acenaphthylene	8.83	100.0
Acenaphthene	8.98	100.0
Fluorene	9.42	100.0
2,4,6-Tribromophenol (Surr)	9.62	100.0
Phenanthrene	10.24	100.0
Anthracene	10.28	100.0
Fluoranthene	11.25	100.0
Pyrene	11.46	100.0
Terphenyl-d14 (Surr)	11.54	100.0
Benzo[a]anthracene	12.49	100.0
Chrysene	12.52	100.0
Benzo[b]fluoranthene	13.69	31.30
Benzo[k]fluoranthene	13.73	100.0
Benzo[a]pyrene	14.16	100.0
Indeno[1,2,3-cd]pyrene	16.13	100.0
Dibenz(a,h)anthracene	16.13	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 | Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9305		9.44	10.0	-5.6	20.0
N-Nitrosodimethylamine	Ave	1.693	1.729		10.2	10.0	2.1	20.0
Pyridine	Ave	2.930	2.862		9.77	10.0	-2.3	20.0
Benzaldehyde	Ave	2.328	2.227	0.0100	19.1	20.0	-4.3	20.0
Phenol	Ave	2.775	2.607	0.8000	9.39	10.0	-6.1	20.0
Aniline	Ave	3.583	3.422		9.55	10.0	-4.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.385	0.7000	9.52	10.0	-4.8	20.0
2-Chlorophenol	Ave	1.523	1.485	0.8000	9.75	10.0	-2.5	20.0
n-Decane	Ave	1.999	1.961		9.81	10.0	-1.9	20.0
1,3-Dichlorobenzene	Ave	1.630	1.558		9.56	10.0	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.666	1.595		9.58	10.0	-4.2	20.0
Benzyl alcohol	Ave	1.232	1.135		9.21	10.0	-7.9	20.0
1,2-Dichlorobenzene	Ave	1.580	1.485		9.40	10.0	-6.0	20.0
2-Methylphenol	Ave	1.706	1.607	0.7000	9.42	10.0	-5.8	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.769		9.38	10.0	-6.2	20.0
Indene	Ave	3.185	2.978		18.7	20.0	-6.5	20.0
3 & 4 Methylphenol	Ave	1.799	1.694		9.42	10.0	-5.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.878	0.5000	9.49	10.0	-5.1	20.0
Acetophenone	Ave	2.817	2.715	0.0100	9.64	10.0	-3.6	20.0
Hexachloroethane	Ave	0.8166	0.7780	0.3000	9.53	10.0	-4.7	20.0
Nitrobenzene	Ave	0.7749	0.7991	0.2000	10.3	10.0	3.1	20.0
Isophorone	Ave	1.226	1.213	0.4000	9.90	10.0	-1.0	20.0
2-Nitrophenol	Ave	0.1796	0.1924	0.1000	10.7	10.0	7.2	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4925	0.2000	10.1	10.0	0.7	20.0
Benzoic acid	Lin1		0.1998		17.8	20.0	-10.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6919	0.3000	10.2	10.0	2.3	20.0
2,4-Dichlorophenol	Ave	0.3062	0.3068	0.2000	10.0	10.0	0.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3396		10.4	10.0	4.4	20.0
Naphthalene	Ave	1.144	1.104	0.7000	9.65	10.0	-3.5	20.0
4-Chloroaniline	Ave	0.4932	0.4897	0.0100	9.93	10.0	-0.7	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2990		10.1	10.0	0.8	20.0
Hexachlorobutadiene	Ave	0.2017	0.2028	0.0100	10.1	10.0	0.5	20.0
Caprolactam	Ave	0.1384	0.1399	0.0100	20.2	20.0	1.0	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4141	0.2000	9.90	10.0	-1.0	20.0
2-Methylnaphthalene	Ave	0.7006	0.6969	0.4000	9.95	10.0	-0.5	20.0
1-Methylnaphthalene	Ave	0.6168	0.5974		9.69	10.0	-3.1	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3792	0.0500	11.4	10.0	14.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5720	0.0100	10.1	10.0	0.5	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3955	0.2000	10.6	10.0	5.6	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4156	0.2000	10.5	10.0	5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.453	0.0100	9.80	10.0	-2.0	20.0
2-Chloronaphthalene	Ave	1.171	1.160	0.8000	9.91	10.0	-0.9	20.0
2-Nitroaniline	Ave	0.6109	0.6385	0.0100	10.5	10.0	4.5	20.0
Dimethyl phthalate	Ave	1.267	1.324	0.0100	10.5	10.0	4.5	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2202		11.2	10.0	11.7	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.3006		10.7	10.0	7.2	20.0
Acenaphthylene	Ave	1.869	1.856	0.9000	9.93	10.0	-0.7	20.0
3-Nitroaniline	Ave	0.3056	0.3058	0.0100	10.0	10.0	0.0	20.0
2,4-Dinitrophenol	Lin1		0.1688	0.0100	23.1	20.0	15.3	20.0
Acenaphthene	Ave	1.201	1.161	0.9000	9.67	10.0	-3.3	20.0
4-Nitrophenol	Ave	0.2548	0.2897		22.7	20.0	13.7	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3952	0.2000	10.6	10.0	5.7	20.0
Dibenzofuran	Ave	1.648	1.632	0.8000	9.90	10.0	-1.0	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3253	0.0100	10.3	10.0	3.4	20.0
Diethyl phthalate	Ave	1.245	1.230	0.0100	9.88	10.0	-1.2	20.0
Hexadecane	Ave	1.016	1.031		10.1	10.0	1.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.6234	0.4000	10.2	10.0	1.6	20.0
4-Nitroaniline	Ave	0.2967	0.3250	0.0100	11.0	10.0	9.5	20.0
Fluorene	Ave	1.379	1.336	0.9000	9.69	10.0	-3.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1514	0.0100	24.5	20.0	22.5*	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.6029	0.0100	21.2	20.0	6.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.790		11.3	10.0	13.4	20.0
Azobenzene	Ave	1.580	1.790		11.3	10.0	13.3	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2457	0.1000	11.5	10.0	15.0	20.0
Hexachlorobenzene	Ave	0.2114	0.2278	0.1000	10.8	10.0	7.8	20.0
Atrazine	Ave	0.2132	0.2375	0.0100	22.3	20.0	11.4	20.0
n-Octadecane	Ave	0.6421	0.7013		10.9	10.0	9.2	20.0
Pentachlorophenol	Ave	0.1444	0.1555	0.0500	21.5	20.0	7.7	20.0
Phenanthrene	Ave	1.268	1.225	0.7000	9.66	10.0	-3.4	20.0
Anthracene	Ave	1.261	1.236	0.7000	9.80	10.0	-2.0	20.0
Carbazole	Ave	1.050	1.150	0.0100	11.0	10.0	9.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.465	0.0100	11.7	10.0	17.2	20.0
Fluoranthene	Ave	1.280	1.418	0.6000	11.1	10.0	10.7	20.0
Benzidine	Lin1		0.6947		22.5	20.0	12.3	20.0
Pyrene	Ave	1.153	1.196	0.6000	10.4	10.0	3.7	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5540	0.0100	10.3	10.0	3.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7681	0.0100	10.5	10.0	5.0	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3621	0.0100	20.1	20.0	0.7	20.0
Benzo[a]anthracene	Ave	1.234	1.201	0.8000	9.73	10.0	-2.7	20.0
Chrysene	Ave	1.158	1.113	0.7000	9.61	10.0	-3.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.450	0.0100	10.2	10.0	2.1	20.0
Benzo[b]fluoranthene	Ave	1.185	1.167	0.7000	9.85	10.0	-1.5	20.0
Benzo[k]fluoranthene	Ave	1.198	1.257	0.7000	10.5	10.0	4.9	20.0
Benzo[a]pyrene	Ave	1.128	1.143	0.7000	10.1	10.0	1.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.215	0.5000	10.4	10.0	3.6	20.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9809	0.4000	10.7	10.0	6.7	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.017	0.5000	10.4	10.0	4.4	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.716		9.81	10.0	-1.9	20.0
Phenol-d5 (Surr)	Ave	2.475	2.398		9.69	10.0	-3.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7861		10.1	10.0	1.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1414		10.9	10.0	8.7	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7760		10.5	10.0	5.4	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-192506/23-A

Matrix: Solid | Lab File ID: 50812005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30(g) | Date Analyzed: 08/12/2015 08:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	67		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-192506/24-A

Matrix: Solid | Lab File ID: 50812006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30(g) | Date Analyzed: 08/12/2015 09:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	466		6.7	0.76
208-96-8	Acenaphthylene	456		6.7	0.35
120-12-7	Anthracene	469		6.7	0.78
56-55-3	Benzo[a]anthracene	504		6.7	0.63
50-32-8	Benzo[a]pyrene	530		6.7	0.64
205-99-2	Benzo[b]fluoranthene	545		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	545		6.7	0.35
207-08-9	Benzo[k]fluoranthene	573		6.7	0.68
218-01-9	Chrysene	540		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	532		6.7	0.66
206-44-0	Fluoranthene	538		6.7	0.55
86-73-7	Fluorene	460		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	517		6.7	0.35
91-20-3	Naphthalene	478		6.7	0.82
85-01-8	Phenanthrene	473		6.7	0.73
129-00-0	Pyrene	538		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	73		20-110
367-12-4	2-Fluorophenol (Surr)	73		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	59		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/08/2015 15:10

Analysis Batch Number: 192437 End Date: 08/08/2015 23:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-192437/1		08/08/2015 15:10	1	50808001.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/2 IC		08/08/2015 15:32	1	50808002.D	RXI-5SILMS 0.45(mm)
STD4 240-192437/3 IC		08/08/2015 15:57	1	50808003.D	RXI-5SILMS 0.45(mm)
STD3 240-192437/4 IC		08/08/2015 16:23	1	50808004.D	RXI-5SILMS 0.45(mm)
STD2 240-192437/5 IC		08/08/2015 16:48	1	50808005.D	RXI-5SILMS 0.45(mm)
STD1 240-192437/6 IC		08/08/2015 17:14	1	50808006.D	RXI-5SILMS 0.45(mm)
STD9 240-192437/7 IC		08/08/2015 17:39	1	50808007.D	RXI-5SILMS 0.45(mm)
STD8 240-192437/8 IC		08/08/2015 18:05	1	50808008.D	RXI-5SILMS 0.45(mm)
STD7 240-192437/9 IC		08/08/2015 18:31	1	50808009.D	RXI-5SILMS 0.45(mm)
STD6 240-192437/10 ICIS		08/08/2015 18:56	1	50808010.D	RXI-5SILMS 0.45(mm)
ICV 240-192437/11		08/08/2015 19:22	1	50808011.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/12 IC		08/08/2015 19:48	1		RXI-5SILMS 0.45(mm)
STD4 240-192437/13 IC		08/08/2015 20:13	1		RXI-5SILMS 0.45(mm)
STD3 240-192437/14 IC		08/08/2015 20:39	1		RXI-5SILMS 0.45(mm)
STD2 240-192437/15 IC		08/08/2015 21:04	1		RXI-5SILMS 0.45(mm)
STD6 240-192437/16 IC		08/08/2015 21:30	1		RXI-5SILMS 0.45(mm)
STD7 240-192437/17 IC		08/08/2015 21:55	1		RXI-5SILMS 0.45(mm)
STD8 240-192437/18 IC		08/08/2015 22:21	1		RXI-5SILMS 0.45(mm)
STD9 240-192437/19 IC		08/08/2015 22:47	1		RXI-5SILMS 0.45(mm)
ICV 240-192437/20		08/08/2015 23:12	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/12/2015 07:21

Analysis Batch Number: 192864 End Date: 08/12/2015 13:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-192864/1		08/12/2015 07:21	1	50812001.D	RXI-5SILMS 0.45(mm)
CCV 240-192864/2 CCVIS		08/12/2015 07:43	1	50812002.D	RXI-5SILMS 0.45(mm)
CCV 240-192864/3		08/12/2015 08:09	1	50812003.D	RXI-5SILMS 0.45(mm)
MB 240-192506/23-A		08/12/2015 08:59	1	50812005.D	RXI-5SILMS 0.45(mm)
LCS 240-192506/24-A		08/12/2015 09:24	1	50812006.D	RXI-5SILMS 0.45(mm)
240-54086-1	D-VS-B-1-1	08/12/2015 09:50	1	50812007.D	RXI-5SILMS 0.45(mm)
240-54086-2	D-VS-B-2-1	08/12/2015 10:15	1	50812008.D	RXI-5SILMS 0.45(mm)
240-54086-3	D-VS-B-3-1	08/12/2015 10:41	1	50812009.D	RXI-5SILMS 0.45(mm)
240-54086-4	D-VS-B-4-1	08/12/2015 11:06	1	50812010.D	RXI-5SILMS 0.45(mm)
240-54086-5	D-VB-B-1-2	08/12/2015 11:32	1	50812011.D	RXI-5SILMS 0.45(mm)
240-54086-6	D-VB-B-2-2	08/12/2015 11:57	1	50812012.D	RXI-5SILMS 0.45(mm)
240-54086-7	D-VB-B-3-2	08/12/2015 12:23	1	50812013.D	RXI-5SILMS 0.45(mm)
240-54086-8	D-DUP01-080615	08/12/2015 12:48	1	50812014.D	RXI-5SILMS 0.45(mm)
240-54086-9	D-VS-A-2-1	08/12/2015 13:14	1	50812015.D	RXI-5SILMS 0.45(mm)
240-54086-10	D-VB-A-2-2	08/12/2015 13:39	1	50812016.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Batch Number: 192506 Batch Start Date: 08/10/15 11:20 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/11/15 03:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00027	exBNASPIKE 00048	exBNASURR W 00025	
240-54086-B-1	D-VS-B-1-1	3540C, 8270D	T	30.16 g	2 mL			1 mL	
240-54086-B-2	D-VS-B-2-1	3540C, 8270D	T	30.38 g	2 mL			1 mL	
240-54086-B-3	D-VS-B-3-1	3540C, 8270D	T	30.04 g	2 mL			1 mL	
240-54086-B-4	D-VS-B-4-1	3540C, 8270D	T	30.12 g	2 mL			1 mL	
240-54086-B-5	D-VB-B-1-2	3540C, 8270D	T	29.80 g	2 mL			1 mL	
240-54086-B-6	D-VB-B-2-2	3540C, 8270D	T	30.24 g	2 mL			1 mL	
240-54086-B-7	D-VB-B-3-2	3540C, 8270D	T	29.73 g	2 mL			1 mL	
240-54086-B-8	D-DUP01-080615	3540C, 8270D	T	29.92 g	2 mL			1 mL	
240-54086-B-9	D-VS-A-2-1	3540C, 8270D	T	30.10 g	2 mL			1 mL	
240-54086-B-10	D-VB-A-2-2	3540C, 8270D	T	29.78 g	2 mL			1 mL	
MB 240-192506/23		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-192506/24		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339907
Na2SO4 Lot Number	2104026
Prep Solvent Lot #	2100868

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54086-1

SDG No.:

Project: MRC Soil Remedy Block D

Client Sample ID	Lab Sample ID
D-VS-B-1-1	240-54086-1
D-VS-B-2-1	240-54086-2
D-VS-B-3-1	240-54086-3
D-VS-B-4-1	240-54086-4
D-VB-B-1-2	240-54086-5
D-VB-B-2-2	240-54086-6
D-VB-B-3-2	240-54086-7
D-DUP01-080615	240-54086-8
D-VS-A-2-1	240-54086-9
D-VB-A-2-2	240-54086-10

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54086-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54086-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/07/2015 16:02 End Date: 08/07/2015 16:25

Lab Sample ID	D/F	Type	Time	Analytes																			
				%Sol	Moist																		
240-54086-1	1	T	16:02	X	X																		
240-54086-1 DU	1	T	16:02	X	X																		
240-54086-2	1	T	16:02	X	X																		
240-54086-3	1	T	16:02	X	X																		
240-54086-4	1	T	16:02	X	X																		
240-54086-5	1	T	16:02	X	X																		
240-54086-6	1	T	16:02	X	X																		
240-54086-7	1	T	16:02	X	X																		
240-54086-8	1	T	16:02	X	X																		
240-54086-9	1	T	16:02	X	X																		
240-54086-10	1	T	16:02	X	X																		
240-54086-10 DU	1	T	16:02	X	X																		
ZZZZZZ			16:02																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/07/2015 16:02 End Date: 08/07/2015 16:25

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			16:25																				
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Prep Types
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Batch Number: 192400 Batch Start Date: 08/07/15 16:02 Batch Analyst: Nolle, Laura C

Batch Method: Moisture Batch End Date: 08/10/15 05:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54086-A-1	D-VS-B-1-1	Moisture	T	4.2475 g	10.6263 g	9.6486 g			
240-54086-A-1 DU	D-VS-B-1-1	Moisture	T	4.2475 g	7.0167 g	6.6138 g			
240-54086-A-2	D-VS-B-2-1	Moisture	T	4.2475 g	13.8612 g	12.3878 g			
240-54086-A-3	D-VS-B-3-1	Moisture	T	4.2475 g	13.7217 g	12.3636 g			
240-54086-A-4	D-VS-B-4-1	Moisture	T	4.2475 g	12.7608 g	11.5316 g			
240-54086-A-5	D-VB-B-1-2	Moisture	T	4.2475 g	13.0321 g	11.9952 g			
240-54086-A-6	D-VB-B-2-2	Moisture	T	4.2475 g	16.7175 g	14.7976 g			
240-54086-A-7	D-VB-B-3-2	Moisture	T	4.2475 g	14.2025 g	12.9772 g			
240-54086-A-8	D-DUP01-080615	Moisture	T	4.2475 g	16.5058 g	15.2942 g			
240-54086-A-9	D-VS-A-2-1	Moisture	T	4.2475 g	15.7182 g	13.8860 g			
240-54086-A-10	D-VB-A-2-2	Moisture	T	4.2475 g	10.8487 g	10.1324 g			
240-54086-A-10 DU	D-VB-A-2-2	Moisture	T	4.2475 g	7.2837 g	6.9500 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	8/7/15
Oven Temp when samples are put in oven	104.1 Degrees C
Time samples were place in the oven	16:34
Date samples were removed from oven	8/10/15
Oven Temp when samples removed from oven	103.3 Degrees C
Time Samples were removed from oven	04:00
Oven ID	002
ID number of the thermometer	Tempguard Box C #6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-54086 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

3.2 | C4.2

Chain of Custody Record

#26 016175

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: JOSH MILLS	Date: 8/6/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412-559-8133	Lab Contact: JOHN. MCFADDEN	Carrier: FEDEX	1 of 1 COCs
Address: 20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — 3 DAY			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
P O # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	PAH (8270D)	Sample Specific Notes:
D-VS-B-1-1	8/6/15	1000	C	SOIL	1			X	
D-VS-B-2-1		1005						X	
D-VS-B-3-1		1200						X	
D-VS-B-4-1		1010						X	
D-VB-B-1-2		1015						X	
D-VB-B-2-2		1020						X	
D-VB-B-3-2		1025						X	
D-DUP01-080615	8/6/15	—						X	
D-VS-A-2-1		1400						X	
D-VB-A-2-2		1405						X	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES FOR BLOCK D AREAS A AND B

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	8/6/15 1540		TestAmerica	8/6/15 1540
Relinquished by:	TestAmerica	8/6/1620		TA	8/7/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 54086**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Alex Cole

Cooler Received on 8/7/15 Opened on 8/7/15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 4.2 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2.	Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
	-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
	-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3.	Shippers' packing slip attached to the cooler(s)?	Yes	No
4.	Did custody papers accompany the sample(s)?	Yes	No
5.	Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7.	Did all bottles arrive in good condition (Unbroken)?	Yes	No
8.	Could all bottle labels be reconciled with the COC?	Yes	No
9.	Were correct bottle(s) used for the test(s) indicated?	Yes	No
10.	Sufficient quantity received to perform indicated analyses?	Yes	No
11.	Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12.	Were VOAs on the COC?	Yes	No
13.	Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14.	Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

D-US-B-3-1 jar broken & rejarred, possible glass present.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-54270-1

Job Description: MRC Soil Remedy Block D

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
8/19/2015 12:03 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/19/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54270-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/13/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-A-1-1 (240-54270-1), D-VS-A-3-1 (240-54270-2), D-VS-A-4-1 (240-54270-3), D-VB-A-1-2 (240-54270-4), D-VB-A-3-2 (240-54270-5), D-VS-C-1-1 (240-54270-6), D-VS-C-2-1 (240-54270-7), D-VS-C-3-1 (240-54270-8), D-VS-C-4-1 (240-54270-9), D-VB-C-1-2 (240-54270-10), D-VB-C-2-2 (240-54270-11), D-VB-C-3-2 (240-54270-12), D-VB-C-4-2 (240-54270-13), D-DUP02-081215 (240-54270-14), D-VS-E-2-1 (240-54270-15), D-VB-E-3-2 (240-54270-16), D-VB-E-6-2 (240-54270-17) and D-DUP03-081215 (240-54270-18) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/14/2015 and 08/15/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VS-E-2-1 (240-54270-15). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-E-6-2 (240-54270-17).

Sample D-VS-A-3-1 (240-54270-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Sample 240-54270-B-15-A has one acid surrogate recovery below acceptance criteria. The target analyte list for this sample is BN only, therefore, no corrective action was required.

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693. However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-A-1-1 (240-54270-1), D-VS-A-3-1 (240-54270-2), D-VS-A-4-1 (240-54270-3), D-VB-A-1-2 (240-54270-4), D-VB-A-3-2 (240-54270-5), D-VS-C-1-1 (240-54270-6), D-VS-C-2-1 (240-54270-7), D-VS-C-3-1 (240-54270-8), D-VS-C-4-1 (240-54270-9), D-VB-C-1-2 (240-54270-10), D-VB-C-2-2 (240-54270-11), D-VB-C-3-2 (240-54270-12), D-VB-C-4-2 (240-54270-13), D-DUP02-081215 (240-54270-14), D-VS-E-2-1 (240-54270-15), D-VB-E-3-2 (240-54270-16), D-VB-E-6-2 (240-54270-17) and D-DUP03-081215 (240-54270-18) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 190307

Lab Sample ID: STD9 240-190307/2 IC Client Sample ID:

Date Analyzed: 07/23/15 09:02 Lab File ID: 50723002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.60	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD8 240-190307/3 IC Client Sample ID:

Date Analyzed: 07/23/15 09:26 Lab File ID: 50723003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.59	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD7 240-190307/4 IC Client Sample ID:

Date Analyzed: 07/23/15 09:50 Lab File ID: 50723004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.59	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD1 240-190307/10 IC Client Sample ID:

Date Analyzed: 07/23/15 12:15 Lab File ID: 50723010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene-d5 (Surr)	6.62	Poor chromatography	hulat	07/23/15 12:52
Dibenz(a,h)anthracene	16.60	Poor chromatography	hulat	07/23/15 12:48
Benzo[g,h,i]perylene	17.08	Poor chromatography	hulat	07/23/15 12:48

Lab Sample ID: ICV 240-190307/11 Client Sample ID:

Date Analyzed: 07/23/15 12:40 Lab File ID: 50723011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.58	Poor chromatography	hulat	07/23/15 13:03

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 193693

Lab Sample ID: CCV 240-193693/2 CCVIS Client Sample ID:

Date Analyzed: 08/18/15 12:52 Lab File ID: 50818002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.99	Poor chromatography	gruberj	08/18/15 13:10

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD5 240-192437/2 IC Client Sample ID:

Date Analyzed: 08/08/15 15:32 Lab File ID: 50808002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/08/15 16:08
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/08/15 16:08
Pyridine	3.64	Poor chromatography	ulmanm	08/08/15 16:08
Benzoic acid	7.19	Poor chromatography	ulmanm	08/08/15 16:06

Lab Sample ID: STD4 240-192437/3 IC Client Sample ID:

Date Analyzed: 08/08/15 15:57 Lab File ID: 50808003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:14
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:14
Pyridine	3.63	Poor chromatography	ulmanm	08/09/15 16:14
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:14

Lab Sample ID: STD3 240-192437/4 IC Client Sample ID:

Date Analyzed: 08/08/15 16:23 Lab File ID: 50808004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:17
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:17
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:17
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:17

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD2 240-192437/5 IC Client Sample ID:

Date Analyzed: 08/08/15 16:48 Lab File ID: 50808005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:22
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:22
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:22
Di-n-octyl phthalate	13.10	Poor chromatography	ulmanm	08/09/15 16:22
Benzo[g,h,i]perylene	16.86	Poor chromatography	ulmanm	08/09/15 16:22

Lab Sample ID: STD1 240-192437/6 IC Client Sample ID:

Date Analyzed: 08/08/15 17:14 Lab File ID: 50808006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibenz(a,h)anthracene	16.27	Poor chromatography	ulmanm	08/09/15 16:24
Indeno[1,2,3-cd]pyrene	16.27	Poor chromatography	ulmanm	08/09/15 16:24

Lab Sample ID: STD9 240-192437/7 IC Client Sample ID:

Date Analyzed: 08/08/15 17:39 Lab File ID: 50808007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:30
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:30
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:30
Caprolactam	7.83	Poor chromatography	ulmanm	08/09/15 16:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD8 240-192437/8 IC Client Sample ID:

Date Analyzed: 08/08/15 18:05 Lab File ID: 50808008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:33
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:33
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:33
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:33

Lab Sample ID: STD7 240-192437/9 IC Client Sample ID:

Date Analyzed: 08/08/15 18:31 Lab File ID: 50808009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:36
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:36
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:36
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:36

Lab Sample ID: STD6 240-192437/10 ICIS Client Sample ID:

Date Analyzed: 08/08/15 18:56 Lab File ID: 50808010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:41
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:41
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:41
Benzoic acid	7.21	Poor chromatography	ulmanm	08/09/15 16:41
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: ICV 240-192437/11 Client Sample ID:

Date Analyzed: 08/08/15 19:22 Lab File ID: 50808011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:42
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:48
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:42
4-Chloroaniline	7.53	Poor chromatography	ulmanm	08/09/15 16:48
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:48

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 193684

Lab Sample ID: CCV 240-193684/2 CCVIS Client Sample ID:

Date Analyzed: 08/18/15 07:47 Lab File ID: 50818002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.07	Split Peak	ulmanm	08/18/15 08:21

Lab Sample ID: 240-54270-18 Client Sample ID: D-DUP03-081215

Date Analyzed: 08/18/15 11:29 Lab File ID: 50818011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.88	Poor chromatography	ulmanm	08/18/15 13:02
Benzo[b]fluoranthene	13.48	Poor chromatography	ulmanm	08/18/15 13:02
Benzo[a]pyrene	13.90	Poor chromatography	ulmanm	08/18/15 13:02

Lab Sample ID: 240-54270-10 Client Sample ID: D-VB-C-1-2

Date Analyzed: 08/18/15 11:54 Lab File ID: 50818012.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.88	Poor chromatography	ulmanm	08/18/15 13:04
Benzo[a]pyrene	13.90	Poor chromatography	ulmanm	08/18/15 13:04

Lab Sample ID: 240-54270-14 Client Sample ID: D-DUP02-081215

Date Analyzed: 08/18/15 12:19 Lab File ID: 50818013.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.46	Poor chromatography	ulmanm	08/18/15 13:07
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 13:07
Indeno[1,2,3-cd]pyrene	15.73	Poor chromatography	ulmanm	08/18/15 13:07
Benzo[g,h,i]perylene	16.28	Poor chromatography	ulmanm	08/18/15 13:07

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 193684

Lab Sample ID: 240-54270-6 Client Sample ID: D-VS-C-1-1

Date Analyzed: 08/18/15 12:44 Lab File ID: 50818014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 13:12
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 13:12
Dibenz(a,h)anthracene	15.73	Poor chromatography	ulmanm	08/18/15 13:12

Lab Sample ID: 240-54270-9 Client Sample ID: D-VS-C-4-1

Date Analyzed: 08/18/15 13:09 Lab File ID: 50818015.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.89	Poor chromatography	ulmanm	08/18/15 13:37
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 13:37
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 13:37

Lab Sample ID: 240-54270-1 Client Sample ID: D-VS-A-1-1

Date Analyzed: 08/18/15 13:34 Lab File ID: 50818016.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 14:13
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 14:13
Indeno[1,2,3-cd]pyrene	15.73	Poor chromatography	ulmanm	08/18/15 14:13
Benzo[g,h,i]perylene	16.28	Poor chromatography	ulmanm	08/18/15 14:13

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 193684

Lab Sample ID: 240-54270-4 Client Sample ID: D-VB-A-1-2

Date Analyzed: 08/18/15 13:59 Lab File ID: 50818017.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.90	Poor chromatography	ulmanm	08/18/15 14:41
2,4,6-Tribromophenol (Surr)	9.49	Poor chromatography	ulmanm	08/18/15 14:41
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 14:41
Dibenz(a,h)anthracene	15.74	Poor chromatography	ulmanm	08/18/15 14:41

Lab Sample ID: 240-54270-8 Client Sample ID: D-VS-C-3-1

Date Analyzed: 08/18/15 14:24 Lab File ID: 50818018.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.90	Poor chromatography	ulmanm	08/18/15 14:54
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 14:54
Dibenz(a,h)anthracene	15.75	Poor chromatography	ulmanm	08/18/15 14:54

Lab Sample ID: 240-54270-15 Client Sample ID: D-VS-E-2-1

Date Analyzed: 08/18/15 14:49 Lab File ID: 50818019.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.90	Poor chromatography	ulmanm	08/18/15 15:57
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 15:57
Dibenz(a,h)anthracene	15.73	Poor chromatography	ulmanm	08/18/15 15:57

Lab Sample ID: 240-54270-2 Client Sample ID: D-VS-A-3-1

Date Analyzed: 08/18/15 15:13 Lab File ID: 50818020.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.90	Poor chromatography	ulmanm	08/18/15 15:42
Benzo[k]fluoranthene	13.50	Poor chromatography	ulmanm	08/18/15 15:42

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 193684

Lab Sample ID: 240-54270-3 Client Sample ID: D-VS-A-4-1

Date Analyzed: 08/18/15 15:38 Lab File ID: 50818021.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	9.49	Poor chromatography	ulmanm	08/18/15 16:12
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 16:12
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 16:12

Lab Sample ID: 240-54270-5 Client Sample ID: D-VB-A-3-2

Date Analyzed: 08/18/15 16:03 Lab File ID: 50818022.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.89	Poor chromatography	ulmanm	08/18/15 16:33
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 16:33
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 16:33
Dibenz(a,h)anthracene	15.73	Poor chromatography	ulmanm	08/18/15 16:33
Indeno[1,2,3-cd]pyrene	15.74	Poor chromatography	ulmanm	08/18/15 16:33

Lab Sample ID: 240-54270-7 Client Sample ID: D-VS-C-2-1

Date Analyzed: 08/18/15 16:28 Lab File ID: 50818023.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 16:54
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 16:54
Dibenz(a,h)anthracene	15.74	Poor chromatography	ulmanm	08/18/15 16:54

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 193684

Lab Sample ID: 240-54270-17 Client Sample ID: D-VB-E-6-2

Date Analyzed: 08/18/15 16:53 Lab File ID: 50818024.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.47	Poor chromatography	ulmanm	08/18/15 17:18
Benzo[k]fluoranthene	13.49	Poor chromatography	ulmanm	08/18/15 17:18
Dibenz(a,h)anthracene	15.73	Poor chromatography	ulmanm	08/18/15 17:18

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54270-1	D-VS-A-1-1	Solid	08/12/2015 1000	08/13/2015 0930
240-54270-2	D-VS-A-3-1	Solid	08/12/2015 1005	08/13/2015 0930
240-54270-3	D-VS-A-4-1	Solid	08/12/2015 1010	08/13/2015 0930
240-54270-4	D-VB-A-1-2	Solid	08/12/2015 1015	08/13/2015 0930
240-54270-5	D-VB-A-3-2	Solid	08/12/2015 1020	08/13/2015 0930
240-54270-6	D-VS-C-1-1	Solid	08/12/2015 1230	08/13/2015 0930
240-54270-7	D-VS-C-2-1	Solid	08/12/2015 1235	08/13/2015 0930
240-54270-8	D-VS-C-3-1	Solid	08/12/2015 1240	08/13/2015 0930
240-54270-9	D-VS-C-4-1	Solid	08/12/2015 1245	08/13/2015 0930
240-54270-10	D-VB-C-1-2	Solid	08/12/2015 1250	08/13/2015 0930
240-54270-11	D-VB-C-2-2	Solid	08/12/2015 1255	08/13/2015 0930
240-54270-12	D-VB-C-3-2	Solid	08/12/2015 1300	08/13/2015 0930
240-54270-13	D-VB-C-4-2	Solid	08/12/2015 1305	08/13/2015 0930
240-54270-14	D-DUP02-081215	Solid	08/12/2015 0000	08/13/2015 0930
240-54270-15	D-VS-E-2-1	Solid	08/12/2015 1500	08/13/2015 0930
240-54270-16	D-VB-E-3-2	Solid	08/12/2015 1505	08/13/2015 0930
240-54270-17	D-VB-E-6-2	Solid	08/12/2015 1510	08/13/2015 0930
240-54270-18	D-DUP03-081215	Solid	08/12/2015 0000	08/13/2015 0930

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-1	**D-VS-A-1-1**					
Acenaphthene		5.5	J	7.6	ug/Kg	8270D
Acenaphthylene		5.4	J	7.6	ug/Kg	8270D
Anthracene		6.9	J	7.6	ug/Kg	8270D
Benzo[a]anthracene		22		7.6	ug/Kg	8270D
Benzo[a]pyrene		22		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		31		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		17		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		16		7.6	ug/Kg	8270D
Chrysene		26		7.6	ug/Kg	8270D
Fluoranthene		40		7.6	ug/Kg	8270D
Fluorene		6.3	J	7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		15		7.6	ug/Kg	8270D
Naphthalene		42		7.6	ug/Kg	8270D
Phenanthrene		20		7.6	ug/Kg	8270D
Pyrene		40		7.6	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54270-2	**D-VS-A-3-1**					
Acenaphthene		380		15	ug/Kg	8270D
Acenaphthylene		14	J	15	ug/Kg	8270D
Anthracene		580		15	ug/Kg	8270D
Benzo[a]anthracene		1100		15	ug/Kg	8270D
Benzo[a]pyrene		1000		15	ug/Kg	8270D
Benzo[b]fluoranthene		1300		15	ug/Kg	8270D
Benzo[g,h,i]perylene		710		15	ug/Kg	8270D
Benzo[k]fluoranthene		560		15	ug/Kg	8270D
Chrysene		1100		15	ug/Kg	8270D
Dibenz(a,h)anthracene		180		15	ug/Kg	8270D
Fluoranthene		2200		15	ug/Kg	8270D
Fluorene		390		15	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		600		15	ug/Kg	8270D
Naphthalene		120		15	ug/Kg	8270D
Phenanthrene		1800		15	ug/Kg	8270D
Pyrene		1700		15	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		9.6		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-3	**D-VS-A-4-1**					
Acenaphthene		80		7.3	ug/Kg	8270D
Acenaphthylene		16		7.3	ug/Kg	8270D
Anthracene		220		7.3	ug/Kg	8270D
Benzo[a]anthracene		580		7.3	ug/Kg	8270D
Benzo[a]pyrene		510		7.3	ug/Kg	8270D
Benzo[b]fluoranthene		620		7.3	ug/Kg	8270D
Benzo[g,h,i]perylene		320		7.3	ug/Kg	8270D
Benzo[k]fluoranthene		300		7.3	ug/Kg	8270D
Chrysene		570		7.3	ug/Kg	8270D
Dibenz(a,h)anthracene		92		7.3	ug/Kg	8270D
Fluoranthene		1100		7.3	ug/Kg	8270D
Fluorene		98		7.3	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		280		7.3	ug/Kg	8270D
Naphthalene		84		7.3	ug/Kg	8270D
Phenanthrene		600		7.3	ug/Kg	8270D
Pyrene		880		7.3	ug/Kg	8270D
Percent Solids		91		0.10	%	Moisture
Percent Moisture		9.2		0.10	%	Moisture
240-54270-4	**D-VB-A-1-2**					
Acenaphthene		35		7.6	ug/Kg	8270D
Acenaphthylene		5.1	J	7.6	ug/Kg	8270D
Anthracene		45		7.6	ug/Kg	8270D
Benzo[a]anthracene		140		7.6	ug/Kg	8270D
Benzo[a]pyrene		150		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		220		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		110		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		77		7.6	ug/Kg	8270D
Chrysene		180		7.6	ug/Kg	8270D
Dibenz(a,h)anthracene		29		7.6	ug/Kg	8270D
Fluoranthene		260		7.6	ug/Kg	8270D
Fluorene		48		7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		93		7.6	ug/Kg	8270D
Naphthalene		56		7.6	ug/Kg	8270D
Phenanthrene		120		7.6	ug/Kg	8270D
Pyrene		270		7.6	ug/Kg	8270D
Percent Solids		87		0.10	%	Moisture
Percent Moisture		13		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-5	**D-VB-A-3-2**					
Acenaphthene		18		7.6	ug/Kg	8270D
Acenaphthylene		65		7.6	ug/Kg	8270D
Anthracene		31		7.6	ug/Kg	8270D
Benzo[a]anthracene		80		7.6	ug/Kg	8270D
Benzo[a]pyrene		100		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		110		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		100		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		49		7.6	ug/Kg	8270D
Chrysene		99		7.6	ug/Kg	8270D
Dibenz(a,h)anthracene		20		7.6	ug/Kg	8270D
Fluoranthene		120		7.6	ug/Kg	8270D
Fluorene		24		7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		68		7.6	ug/Kg	8270D
Naphthalene		14		7.6	ug/Kg	8270D
Phenanthrene		75		7.6	ug/Kg	8270D
Pyrene		180		7.6	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54270-6	**D-VS-C-1-1**					
Acenaphthene		60		8.1	ug/Kg	8270D
Anthracene		99		8.1	ug/Kg	8270D
Benzo[a]anthracene		190		8.1	ug/Kg	8270D
Benzo[a]pyrene		170		8.1	ug/Kg	8270D
Benzo[b]fluoranthene		200		8.1	ug/Kg	8270D
Benzo[g,h,i]perylene		110		8.1	ug/Kg	8270D
Benzo[k]fluoranthene		110		8.1	ug/Kg	8270D
Chrysene		190		8.1	ug/Kg	8270D
Dibenz(a,h)anthracene		25		8.1	ug/Kg	8270D
Fluoranthene		440		8.1	ug/Kg	8270D
Fluorene		51		8.1	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		86		8.1	ug/Kg	8270D
Naphthalene		72		8.1	ug/Kg	8270D
Phenanthrene		320		8.1	ug/Kg	8270D
Pyrene		360		8.1	ug/Kg	8270D
Percent Solids		82		0.10	%	Moisture
Percent Moisture		18		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-7	**D-VS-C-2-1**					
Acenaphthene		51		7.7	ug/Kg	8270D
Acenaphthylene		9.2		7.7	ug/Kg	8270D
Anthracene		150		7.7	ug/Kg	8270D
Benzo[a]anthracene		140		7.7	ug/Kg	8270D
Benzo[a]pyrene		100		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		140		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		71		7.7	ug/Kg	8270D
Benzo[k]fluoranthene		68		7.7	ug/Kg	8270D
Chrysene		140		7.7	ug/Kg	8270D
Dibenz(a,h)anthracene		23		7.7	ug/Kg	8270D
Fluoranthene		500		7.7	ug/Kg	8270D
Fluorene		78		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		66		7.7	ug/Kg	8270D
Naphthalene		52		7.7	ug/Kg	8270D
Phenanthrene		510		7.7	ug/Kg	8270D
Pyrene		410		7.7	ug/Kg	8270D
Percent Solids		87		0.10	%	Moisture
Percent Moisture		13		0.10	%	Moisture
240-54270-8	**D-VS-C-3-1**					
Acenaphthene		130		8.2	ug/Kg	8270D
Anthracene		74		8.2	ug/Kg	8270D
Benzo[a]anthracene		82		8.2	ug/Kg	8270D
Benzo[a]pyrene		76		8.2	ug/Kg	8270D
Benzo[b]fluoranthene		100		8.2	ug/Kg	8270D
Benzo[g,h,i]perylene		50		8.2	ug/Kg	8270D
Benzo[k]fluoranthene		40		8.2	ug/Kg	8270D
Chrysene		87		8.2	ug/Kg	8270D
Dibenz(a,h)anthracene		13		8.2	ug/Kg	8270D
Fluoranthene		230		8.2	ug/Kg	8270D
Fluorene		98		8.2	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		49		8.2	ug/Kg	8270D
Naphthalene		69		8.2	ug/Kg	8270D
Phenanthrene		330		8.2	ug/Kg	8270D
Pyrene		180		8.2	ug/Kg	8270D
Percent Solids		82		0.10	%	Moisture
Percent Moisture		18		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-9	**D-VS-C-4-1**					
Acenaphthene		33		7.5	ug/Kg	8270D
Anthracene		23		7.5	ug/Kg	8270D
Benzo[a]anthracene		57		7.5	ug/Kg	8270D
Benzo[a]pyrene		55		7.5	ug/Kg	8270D
Benzo[b]fluoranthene		70		7.5	ug/Kg	8270D
Benzo[g,h,i]perylene		35		7.5	ug/Kg	8270D
Benzo[k]fluoranthene		29		7.5	ug/Kg	8270D
Chrysene		61		7.5	ug/Kg	8270D
Fluoranthene		110		7.5	ug/Kg	8270D
Fluorene		21		7.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		33		7.5	ug/Kg	8270D
Naphthalene		40		7.5	ug/Kg	8270D
Phenanthrene		79		7.5	ug/Kg	8270D
Pyrene		99		7.5	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		10		0.10	%	Moisture
240-54270-10	**D-VB-C-1-2**					
Benzo[a]anthracene		11		7.9	ug/Kg	8270D
Benzo[a]pyrene		8.7		7.9	ug/Kg	8270D
Benzo[b]fluoranthene		13		7.9	ug/Kg	8270D
Chrysene		11		7.9	ug/Kg	8270D
Fluoranthene		24		7.9	ug/Kg	8270D
Phenanthrene		12		7.9	ug/Kg	8270D
Pyrene		19		7.9	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture
240-54270-11	**D-VB-C-2-2**					
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-12	**D-VB-C-3-2**					
Acenaphthene		28		8.3	ug/Kg	8270D
Benzo[a]anthracene		4.2	J	8.3	ug/Kg	8270D
Benzo[a]pyrene		4.5	J	8.3	ug/Kg	8270D
Benzo[b]fluoranthene		6.7	J	8.3	ug/Kg	8270D
Chrysene		4.5	J	8.3	ug/Kg	8270D
Fluoranthene		10		8.3	ug/Kg	8270D
Fluorene		7.2	J	8.3	ug/Kg	8270D
Naphthalene		19		8.3	ug/Kg	8270D
Phenanthrene		11		8.3	ug/Kg	8270D
Pyrene		8.1	J	8.3	ug/Kg	8270D
Percent Solids		81		0.10	%	Moisture
Percent Moisture		19		0.10	%	Moisture
240-54270-13	**D-VB-C-4-2**					
Percent Solids		83		0.10	%	Moisture
Percent Moisture		17		0.10	%	Moisture
240-54270-14	**D-DUP02-081215**					
Acenaphthene		15		7.4	ug/Kg	8270D
Anthracene		16		7.4	ug/Kg	8270D
Benzo[a]anthracene		22		7.4	ug/Kg	8270D
Benzo[a]pyrene		23		7.4	ug/Kg	8270D
Benzo[b]fluoranthene		30		7.4	ug/Kg	8270D
Benzo[g,h,i]perylene		17		7.4	ug/Kg	8270D
Benzo[k]fluoranthene		15		7.4	ug/Kg	8270D
Chrysene		29		7.4	ug/Kg	8270D
Fluoranthene		60		7.4	ug/Kg	8270D
Fluorene		12		7.4	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		13		7.4	ug/Kg	8270D
Naphthalene		18		7.4	ug/Kg	8270D
Phenanthrene		52		7.4	ug/Kg	8270D
Pyrene		48		7.4	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		10		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-15	**D-VS-E-2-1**					
Acenaphthene		16		7.5	ug/Kg	8270D
Acenaphthylene		9.2		7.5	ug/Kg	8270D
Anthracene		44		7.5	ug/Kg	8270D
Benzo[a]anthracene		270		7.5	ug/Kg	8270D
Benzo[a]pyrene		310		7.5	ug/Kg	8270D
Benzo[b]fluoranthene		510		7.5	ug/Kg	8270D
Benzo[g,h,i]perylene		240		7.5	ug/Kg	8270D
Benzo[k]fluoranthene		230		7.5	ug/Kg	8270D
Chrysene		520		7.5	ug/Kg	8270D
Dibenz(a,h)anthracene		57		7.5	ug/Kg	8270D
Fluoranthene		620		7.5	ug/Kg	8270D
Fluorene		12		7.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		200		7.5	ug/Kg	8270D
Naphthalene		4.3	J	7.5	ug/Kg	8270D
Phenanthrene		150		7.5	ug/Kg	8270D
Pyrene		540		7.5	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		10		0.10	%	Moisture
240-54270-16	**D-VB-E-3-2**					
Benzo[a]anthracene		6.5	J	7.9	ug/Kg	8270D
Chrysene		4.9	J	7.9	ug/Kg	8270D
Fluoranthene		10		7.9	ug/Kg	8270D
Phenanthrene		6.2	J	7.9	ug/Kg	8270D
Pyrene		8.5		7.9	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54270-17	**D-VB-E-6-2**					
Acenaphthene		9.5		7.8	ug/Kg	8270D
Anthracene		19		7.8	ug/Kg	8270D
Benzo[a]anthracene		76		7.8	ug/Kg	8270D
Benzo[a]pyrene		80		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		110		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		63		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		48		7.8	ug/Kg	8270D
Chrysene		91		7.8	ug/Kg	8270D
Dibenz(a,h)anthracene		14		7.8	ug/Kg	8270D
Fluoranthene		150		7.8	ug/Kg	8270D
Fluorene		8.2		7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		55		7.8	ug/Kg	8270D
Naphthalene		7.6	J	7.8	ug/Kg	8270D
Phenanthrene		77		7.8	ug/Kg	8270D
Pyrene		130		7.8	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54270-18	**D-DUP03-081215**					
Benzo[a]anthracene		8.2		8.1	ug/Kg	8270D
Benzo[a]pyrene		6.0	J	8.1	ug/Kg	8270D
Benzo[b]fluoranthene		13		8.1	ug/Kg	8270D
Chrysene		11		8.1	ug/Kg	8270D
Fluoranthene		16		8.1	ug/Kg	8270D
Phenanthrene		8.0	J	8.1	ug/Kg	8270D
Pyrene		14		8.1	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Method	Analyst	Analyst ID
SW846 8270D	Gruber, John	JMG
SW846 8270D	Ulman, Mark	MRU
EPA Moisture	Nguyen, Diem	DTN

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-A-1-1

Lab Sample ID: 240-54270-1 Date Sampled: 08/12/2015 1000
Client Matrix: Solid % Moisture: 12.2 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818016.D
Dilution:	1.0			Initial Weight/Volume:	30.18 g
Analysis Date:	08/18/2015 1334			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		5.5	J	0.86	7.6
Acenaphthylene		5.4	J	0.40	7.6
Anthracene		6.9	J	0.88	7.6
Benzo[a]anthracene		22		0.71	7.6
Benzo[a]pyrene		22		0.72	7.6
Benzo[b]fluoranthene		31		0.67	7.6
Benzo[g,h,i]perylene		17		0.40	7.6
Benzo[k]fluoranthene		16		0.77	7.6
Chrysene		26		1.2	7.6
Dibenz(a,h)anthracene		0.75	U	0.75	7.6
Fluoranthene		40		0.62	7.6
Fluorene		6.3	J	0.60	7.6
Indeno[1,2,3-cd]pyrene		15		0.40	7.6
Naphthalene		42		0.93	7.6
Phenanthrene		20		0.83	7.6
Pyrene		40		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	79		36 - 110
Phenol-d5 (Surr)	50		26 - 110
Nitrobenzene-d5 (Surr)	60		20 - 110
2-Fluorophenol (Surr)	61		24 - 110
2-Fluorobiphenyl (Surr)	64		24 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-A-3-1

Lab Sample ID: 240-54270-2 Date Sampled: 08/12/2015 1005
Client Matrix: Solid % Moisture: 9.6 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818020.D
Dilution:	2.0			Initial Weight/Volume:	30.16 g
Analysis Date:	08/18/2015 1513			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		380		1.7	15
Acenaphthylene		14	J	0.77	15
Anthracene		580		1.7	15
Benzo[a]anthracene		1100		1.4	15
Benzo[a]pyrene		1000		1.4	15
Benzo[b]fluoranthene		1300		1.3	15
Benzo[g,h,i]perylene		710		0.77	15
Benzo[k]fluoranthene		560		1.5	15
Chrysene		1100		2.4	15
Dibenz(a,h)anthracene		180		1.5	15
Fluoranthene		2200		1.2	15
Fluorene		390		1.2	15
Indeno[1,2,3-cd]pyrene		600		0.77	15
Naphthalene		120		1.8	15
Phenanthrene		1800		1.6	15
Pyrene		1700		0.97	15

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	68		36 - 110
Phenol-d5 (Surr)	39		26 - 110
Nitrobenzene-d5 (Surr)	44		20 - 110
2-Fluorophenol (Surr)	43		24 - 110
2-Fluorobiphenyl (Surr)	52		24 - 110
2,4,6-Tribromophenol (Surr)	40		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-A-4-1

Lab Sample ID: 240-54270-3 Date Sampled: 08/12/2015 1010
Client Matrix: Solid % Moisture: 9.2 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818021.D
Dilution:	1.0			Initial Weight/Volume:	30.11 g
Analysis Date:	08/18/2015 1538			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		80		0.83	7.3
Acenaphthylene		16		0.38	7.3
Anthracene		220		0.86	7.3
Benzo[a]anthracene		580		0.69	7.3
Benzo[a]pyrene		510		0.70	7.3
Benzo[b]fluoranthene		620		0.65	7.3
Benzo[g,h,i]perylene		320		0.38	7.3
Benzo[k]fluoranthene		300		0.75	7.3
Chrysene		570		1.2	7.3
Dibenz(a,h)anthracene		92		0.72	7.3
Fluoranthene		1100		0.60	7.3
Fluorene		98		0.58	7.3
Indeno[1,2,3-cd]pyrene		280		0.38	7.3
Naphthalene		84		0.90	7.3
Phenanthrene		600		0.80	7.3
Pyrene		880		0.48	7.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	78		36 - 110
Phenol-d5 (Surr)	46		26 - 110
Nitrobenzene-d5 (Surr)	53		20 - 110
2-Fluorophenol (Surr)	58		24 - 110
2-Fluorobiphenyl (Surr)	63		24 - 110
2,4,6-Tribromophenol (Surr)	38		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-A-1-2

Lab Sample ID: 240-54270-4 Date Sampled: 08/12/2015 1015
Client Matrix: Solid % Moisture: 12.8 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818017.D
Dilution:	1.0			Initial Weight/Volume:	30.09 g
Analysis Date:	08/18/2015 1359			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		35		0.87	7.6
Acenaphthylene		5.1	J	0.40	7.6
Anthracene		45		0.89	7.6
Benzo[a]anthracene		140		0.72	7.6
Benzo[a]pyrene		150		0.73	7.6
Benzo[b]fluoranthene		220		0.67	7.6
Benzo[g,h,i]perylene		110		0.40	7.6
Benzo[k]fluoranthene		77		0.78	7.6
Chrysene		180		1.3	7.6
Dibenz(a,h)anthracene		29		0.75	7.6
Fluoranthene		260		0.63	7.6
Fluorene		48		0.61	7.6
Indeno[1,2,3-cd]pyrene		93		0.40	7.6
Naphthalene		56		0.94	7.6
Phenanthrene		120		0.83	7.6
Pyrene		270		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	84		36 - 110
Phenol-d5 (Surr)	61		26 - 110
Nitrobenzene-d5 (Surr)	62		20 - 110
2-Fluorophenol (Surr)	63		24 - 110
2-Fluorobiphenyl (Surr)	71		24 - 110
2,4,6-Tribromophenol (Surr)	36		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-A-3-2

Lab Sample ID: 240-54270-5 Date Sampled: 08/12/2015 1020
Client Matrix: Solid % Moisture: 12.1 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818022.D
Dilution:	1.0			Initial Weight/Volume:	30.07 g
Analysis Date:	08/18/2015 1603			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		18		0.86	7.6
Acenaphthylene		65		0.40	7.6
Anthracene		31		0.89	7.6
Benzo[a]anthracene		80		0.71	7.6
Benzo[a]pyrene		100		0.73	7.6
Benzo[b]fluoranthene		110		0.67	7.6
Benzo[g,h,i]perylene		100		0.40	7.6
Benzo[k]fluoranthene		49		0.77	7.6
Chrysene		99		1.2	7.6
Dibenz(a,h)anthracene		20		0.75	7.6
Fluoranthene		120		0.62	7.6
Fluorene		24		0.60	7.6
Indeno[1,2,3-cd]pyrene		68		0.40	7.6
Naphthalene		14		0.93	7.6
Phenanthrene		75		0.83	7.6
Pyrene		180		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	72		36 - 110
Phenol-d5 (Surr)	52		26 - 110
Nitrobenzene-d5 (Surr)	53		20 - 110
2-Fluorophenol (Surr)	54		24 - 110
2-Fluorobiphenyl (Surr)	59		24 - 110
2,4,6-Tribromophenol (Surr)	22		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: **D-VS-C-1-1**

Lab Sample ID: 240-54270-6 Date Sampled: 08/12/2015 1230
Client Matrix: Solid % Moisture: 18.1 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818014.D
Dilution:	1.0			Initial Weight/Volume:	30.13 g
Analysis Date:	08/18/2015 1244			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		60		0.92	8.1
Acenaphthylene		0.43	U	0.43	8.1
Anthracene		99		0.95	8.1
Benzo[a]anthracene		190		0.77	8.1
Benzo[a]pyrene		170		0.78	8.1
Benzo[b]fluoranthene		200		0.72	8.1
Benzo[g,h,i]perylene		110		0.43	8.1
Benzo[k]fluoranthene		110		0.83	8.1
Chrysene		190		1.3	8.1
Dibenz(a,h)anthracene		25		0.80	8.1
Fluoranthene		440		0.67	8.1
Fluorene		51		0.64	8.1
Indeno[1,2,3-cd]pyrene		86		0.43	8.1
Naphthalene		72		1.0	8.1
Phenanthrene		320		0.89	8.1
Pyrene		360		0.53	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	81		36 - 110
Phenol-d5 (Surr)	59		26 - 110
Nitrobenzene-d5 (Surr)	61		20 - 110
2-Fluorophenol (Surr)	63		24 - 110
2-Fluorobiphenyl (Surr)	64		24 - 110
2,4,6-Tribromophenol (Surr)	37		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-C-2-1

Lab Sample ID: 240-54270-7 Date Sampled: 08/12/2015 1235
Client Matrix: Solid % Moisture: 12.8 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818023.D
Dilution:	1.0			Initial Weight/Volume:	29.80 g
Analysis Date:	08/18/2015 1628			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		51		0.88	7.7
Acenaphthylene		9.2		0.40	7.7
Anthracene		150		0.90	7.7
Benzo[a]anthracene		140		0.73	7.7
Benzo[a]pyrene		100		0.74	7.7
Benzo[b]fluoranthene		140		0.68	7.7
Benzo[g,h,i]perylene		71		0.40	7.7
Benzo[k]fluoranthene		68		0.78	7.7
Chrysene		140		1.3	7.7
Dibenz(a,h)anthracene		23		0.76	7.7
Fluoranthene		500		0.63	7.7
Fluorene		78		0.61	7.7
Indeno[1,2,3-cd]pyrene		66		0.40	7.7
Naphthalene		52		0.95	7.7
Phenanthrene		510		0.84	7.7
Pyrene		410		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	77		36 - 110
Phenol-d5 (Surr)	50		26 - 110
Nitrobenzene-d5 (Surr)	59		20 - 110
2-Fluorophenol (Surr)	58		24 - 110
2-Fluorobiphenyl (Surr)	62		24 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-C-3-1

Lab Sample ID: 240-54270-8 Date Sampled: 08/12/2015 1240
Client Matrix: Solid % Moisture: 17.8 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818018.D
Dilution:	1.0			Initial Weight/Volume:	29.77 g
Analysis Date:	08/18/2015 1424			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		130		0.93	8.2
Acenaphthylene		0.43	U	0.43	8.2
Anthracene		74		0.96	8.2
Benzo[a]anthracene		82		0.77	8.2
Benzo[a]pyrene		76		0.78	8.2
Benzo[b]fluoranthene		100		0.72	8.2
Benzo[g,h,i]perylene		50		0.43	8.2
Benzo[k]fluoranthene		40		0.83	8.2
Chrysene		87		1.3	8.2
Dibenz(a,h)anthracene		13		0.81	8.2
Fluoranthene		230		0.67	8.2
Fluorene		98		0.65	8.2
Indeno[1,2,3-cd]pyrene		49		0.43	8.2
Naphthalene		69		1.0	8.2
Phenanthrene		330		0.89	8.2
Pyrene		180		0.54	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	73		36 - 110
Phenol-d5 (Surr)	56		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	59		24 - 110
2-Fluorobiphenyl (Surr)	59		24 - 110
2,4,6-Tribromophenol (Surr)	30		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-C-4-1

Lab Sample ID: 240-54270-9 Date Sampled: 08/12/2015 1245
Client Matrix: Solid % Moisture: 10.4 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818015.D
Dilution:	1.0			Initial Weight/Volume:	29.97 g
Analysis Date:	08/18/2015 1309			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		33		0.85	7.5
Acenaphthylene		0.39	U	0.39	7.5
Anthracene		23		0.87	7.5
Benzo[a]anthracene		57		0.70	7.5
Benzo[a]pyrene		55		0.72	7.5
Benzo[b]fluoranthene		70		0.66	7.5
Benzo[g,h,i]perylene		35		0.39	7.5
Benzo[k]fluoranthene		29		0.76	7.5
Chrysene		61		1.2	7.5
Dibenz(a,h)anthracene		0.74	U	0.74	7.5
Fluoranthene		110		0.61	7.5
Fluorene		21		0.59	7.5
Indeno[1,2,3-cd]pyrene		33		0.39	7.5
Naphthalene		40		0.92	7.5
Phenanthrene		79		0.82	7.5
Pyrene		99		0.49	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	75		36 - 110
Phenol-d5 (Surr)	54		26 - 110
Nitrobenzene-d5 (Surr)	55		20 - 110
2-Fluorophenol (Surr)	55		24 - 110
2-Fluorobiphenyl (Surr)	60		24 - 110
2,4,6-Tribromophenol (Surr)	38		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-C-1-2

Lab Sample ID: 240-54270-10 Date Sampled: 08/12/2015 1250
Client Matrix: Solid % Moisture: 15.6 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818012.D
Dilution:	1.0			Initial Weight/Volume:	29.98 g
Analysis Date:	08/18/2015 1154			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.42	U	0.42	7.9
Anthracene		0.93	U	0.93	7.9
Benzo[a]anthracene		11		0.75	7.9
Benzo[a]pyrene		8.7		0.76	7.9
Benzo[b]fluoranthene		13		0.70	7.9
Benzo[g,h,i]perylene		0.42	U	0.42	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		11		1.3	7.9
Dibenz(a,h)anthracene		0.78	U	0.78	7.9
Fluoranthene		24		0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	7.9
Naphthalene		0.97	U	0.97	7.9
Phenanthrene		12		0.87	7.9
Pyrene		19		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	76		36 - 110
Phenol-d5 (Surr)	58		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	57		24 - 110
2-Fluorobiphenyl (Surr)	60		24 - 110
2,4,6-Tribromophenol (Surr)	45		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-C-2-2

Lab Sample ID: 240-54270-11 Date Sampled: 08/12/2015 1255
Client Matrix: Solid % Moisture: 15.4 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818008.D
Dilution:	1.0			Initial Weight/Volume:	29.70 g
Analysis Date:	08/18/2015 1015			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.91	U	0.91	8.0
Acenaphthylene		0.42	U	0.42	8.0
Anthracene		0.93	U	0.93	8.0
Benzo[a]anthracene		0.75	U	0.75	8.0
Benzo[a]pyrene		0.76	U	0.76	8.0
Benzo[b]fluoranthene		0.70	U	0.70	8.0
Benzo[g,h,i]perylene		0.42	U	0.42	8.0
Benzo[k]fluoranthene		0.81	U	0.81	8.0
Chrysene		1.3	U	1.3	8.0
Dibenz(a,h)anthracene		0.79	U	0.79	8.0
Fluoranthene		0.66	U	0.66	8.0
Fluorene		0.63	U	0.63	8.0
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	8.0
Naphthalene		0.98	U	0.98	8.0
Phenanthrene		0.87	U	0.87	8.0
Pyrene		0.53	U	0.53	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	75		36 - 110
Phenol-d5 (Surr)	59		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	57		24 - 110
2-Fluorobiphenyl (Surr)	63		24 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-C-3-2

Lab Sample ID: 240-54270-12 Date Sampled: 08/12/2015 1300
Client Matrix: Solid % Moisture: 18.9 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818005.D
Dilution:	1.0			Initial Weight/Volume:	29.74 g
Analysis Date:	08/18/2015 1410			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1025			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		28		0.95	8.3
Acenaphthylene		0.44	U	0.44	8.3
Anthracene		0.97	U	0.97	8.3
Benzo[a]anthracene		4.2	J	0.78	8.3
Benzo[a]pyrene		4.5	J	0.80	8.3
Benzo[b]fluoranthene		6.7	J	0.73	8.3
Benzo[g,h,i]perylene		0.44	U	0.44	8.3
Benzo[k]fluoranthene		0.85	U	0.85	8.3
Chrysene		4.5	J	1.4	8.3
Dibenz(a,h)anthracene		0.82	U	0.82	8.3
Fluoranthene		10		0.68	8.3
Fluorene		7.2	J	0.66	8.3
Indeno[1,2,3-cd]pyrene		0.44	U	0.44	8.3
Naphthalene		19		1.0	8.3
Phenanthrene		11		0.91	8.3
Pyrene		8.1	J	0.55	8.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	66		36 - 110
Phenol-d5 (Surr)	62		26 - 110
Nitrobenzene-d5 (Surr)	48		20 - 110
2-Fluorophenol (Surr)	60		24 - 110
2-Fluorobiphenyl (Surr)	53		24 - 110
2,4,6-Tribromophenol (Surr)	35		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-C-4-2

Lab Sample ID: 240-54270-13 Date Sampled: 08/12/2015 1305
Client Matrix: Solid % Moisture: 17.2 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818009.D
Dilution:	1.0			Initial Weight/Volume:	29.63 g
Analysis Date:	08/18/2015 1040			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.93	U	0.93	8.2
Acenaphthylene		0.43	U	0.43	8.2
Anthracene		0.95	U	0.95	8.2
Benzo[a]anthracene		0.77	U	0.77	8.2
Benzo[a]pyrene		0.78	U	0.78	8.2
Benzo[b]fluoranthene		0.72	U	0.72	8.2
Benzo[g,h,i]perylene		0.43	U	0.43	8.2
Benzo[k]fluoranthene		0.83	U	0.83	8.2
Chrysene		1.3	U	1.3	8.2
Dibenz(a,h)anthracene		0.81	U	0.81	8.2
Fluoranthene		0.67	U	0.67	8.2
Fluorene		0.65	U	0.65	8.2
Indeno[1,2,3-cd]pyrene		0.43	U	0.43	8.2
Naphthalene		1.0	U	1.0	8.2
Phenanthrene		0.89	U	0.89	8.2
Pyrene		0.54	U	0.54	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	65		36 - 110
Phenol-d5 (Surr)	51		26 - 110
Nitrobenzene-d5 (Surr)	51		20 - 110
2-Fluorophenol (Surr)	57		24 - 110
2-Fluorobiphenyl (Surr)	57		24 - 110
2,4,6-Tribromophenol (Surr)	39		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-DUP02-081215

Lab Sample ID: 240-54270-14 Date Sampled: 08/12/2015 0000
Client Matrix: Solid % Moisture: 10.4 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818013.D
Dilution:	1.0			Initial Weight/Volume:	30.33 g
Analysis Date:	08/18/2015 1219			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		15		0.84	7.4
Acenaphthylene		0.39	U	0.39	7.4
Anthracene		16		0.86	7.4
Benzo[a]anthracene		22		0.70	7.4
Benzo[a]pyrene		23		0.71	7.4
Benzo[b]fluoranthene		30		0.65	7.4
Benzo[g,h,i]perylene		17		0.39	7.4
Benzo[k]fluoranthene		15		0.75	7.4
Chrysene		29		1.2	7.4
Dibenz(a,h)anthracene		0.73	U	0.73	7.4
Fluoranthene		60		0.61	7.4
Fluorene		12		0.59	7.4
Indeno[1,2,3-cd]pyrene		13		0.39	7.4
Naphthalene		18		0.91	7.4
Phenanthrene		52		0.81	7.4
Pyrene		48		0.49	7.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	78		36 - 110
Phenol-d5 (Surr)	60		26 - 110
Nitrobenzene-d5 (Surr)	59		20 - 110
2-Fluorophenol (Surr)	60		24 - 110
2-Fluorobiphenyl (Surr)	63		24 - 110
2,4,6-Tribromophenol (Surr)	53		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VS-E-2-1

Lab Sample ID: 240-54270-15 Date Sampled: 08/12/2015 1500
Client Matrix: Solid % Moisture: 10.4 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818019.D
Dilution:	1.0			Initial Weight/Volume:	29.96 g
Analysis Date:	08/18/2015 1449			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		16		0.85	7.5
Acenaphthylene		9.2		0.39	7.5
Anthracene		44		0.87	7.5
Benzo[a]anthracene		270		0.70	7.5
Benzo[a]pyrene		310		0.72	7.5
Benzo[b]fluoranthene		510		0.66	7.5
Benzo[g,h,i]perylene		240		0.39	7.5
Benzo[k]fluoranthene		230		0.76	7.5
Chrysene		520		1.2	7.5
Dibenz(a,h)anthracene		57		0.74	7.5
Fluoranthene		620		0.61	7.5
Fluorene		12		0.59	7.5
Indeno[1,2,3-cd]pyrene		200		0.39	7.5
Naphthalene		4.3	J	0.92	7.5
Phenanthrene		150		0.82	7.5
Pyrene		540		0.49	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	52		36 - 110
Phenol-d5 (Surr)	41		26 - 110
Nitrobenzene-d5 (Surr)	41		20 - 110
2-Fluorophenol (Surr)	39		24 - 110
2-Fluorobiphenyl (Surr)	46		24 - 110
2,4,6-Tribromophenol (Surr)	2	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-E-3-2

Lab Sample ID: 240-54270-16 Date Sampled: 08/12/2015 1505
Client Matrix: Solid % Moisture: 14.9 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818010.D
Dilution:	1.0			Initial Weight/Volume:	29.60 g
Analysis Date:	08/18/2015 1105			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.91	U	0.91	7.9
Acenaphthylene		0.42	U	0.42	7.9
Anthracene		0.93	U	0.93	7.9
Benzo[a]anthracene		6.5	J	0.75	7.9
Benzo[a]pyrene		0.76	U	0.76	7.9
Benzo[b]fluoranthene		0.70	U	0.70	7.9
Benzo[g,h,i]perylene		0.42	U	0.42	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		4.9	J	1.3	7.9
Dibenz(a,h)anthracene		0.79	U	0.79	7.9
Fluoranthene		10		0.66	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	7.9
Naphthalene		0.98	U	0.98	7.9
Phenanthrene		6.2	J	0.87	7.9
Pyrene		8.5		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	73		36 - 110
Phenol-d5 (Surr)	53		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	57		24 - 110
2-Fluorobiphenyl (Surr)	60		24 - 110
2,4,6-Tribromophenol (Surr)	14		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-VB-E-6-2

Lab Sample ID: 240-54270-17 Date Sampled: 08/12/2015 1510
Client Matrix: Solid % Moisture: 13.8 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818024.D
Dilution:	1.0			Initial Weight/Volume:	29.79 g
Analysis Date:	08/18/2015 1653			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.5		0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		19		0.91	7.8
Benzo[a]anthracene		76		0.74	7.8
Benzo[a]pyrene		80		0.75	7.8
Benzo[b]fluoranthene		110		0.69	7.8
Benzo[g,h,i]perylene		63		0.41	7.8
Benzo[k]fluoranthene		48		0.79	7.8
Chrysene		91		1.3	7.8
Dibenz(a,h)anthracene		14		0.77	7.8
Fluoranthene		150		0.64	7.8
Fluorene		8.2		0.62	7.8
Indeno[1,2,3-cd]pyrene		55		0.41	7.8
Naphthalene		7.6	J	0.96	7.8
Phenanthrene		77		0.85	7.8
Pyrene		130		0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	81		36 - 110
Phenol-d5 (Surr)	61		26 - 110
Nitrobenzene-d5 (Surr)	63		20 - 110
2-Fluorophenol (Surr)	67		24 - 110
2-Fluorobiphenyl (Surr)	71		24 - 110
2,4,6-Tribromophenol (Surr)	8	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Client Sample ID: D-DUP03-081215

Lab Sample ID: 240-54270-18 Date Sampled: 08/12/2015 0000
Client Matrix: Solid % Moisture: 16.4 Date Received: 08/13/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-193298	Lab File ID:	50818011.D
Dilution:	1.0			Initial Weight/Volume:	29.64 g
Analysis Date:	08/18/2015 1129			Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.92	U	0.92	8.1
Acenaphthylene		0.42	U	0.42	8.1
Anthracene		0.94	U	0.94	8.1
Benzo[a]anthracene		8.2		0.76	8.1
Benzo[a]pyrene		6.0	J	0.77	8.1
Benzo[b]fluoranthene		13		0.71	8.1
Benzo[g,h,i]perylene		0.42	U	0.42	8.1
Benzo[k]fluoranthene		0.82	U	0.82	8.1
Chrysene		11		1.3	8.1
Dibenz(a,h)anthracene		0.80	U	0.80	8.1
Fluoranthene		16		0.67	8.1
Fluorene		0.64	U	0.64	8.1
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	8.1
Naphthalene		0.99	U	0.99	8.1
Phenanthrene		8.0	J	0.88	8.1
Pyrene		14		0.53	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	73		36 - 110
Phenol-d5 (Surr)	55		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	55		24 - 110
2-Fluorobiphenyl (Surr)	60		24 - 110
2,4,6-Tribromophenol (Surr)	15		10 - 110

General Chemistry

Client Sample ID: **D-VS-A-1-1**

Lab Sample ID: 240-54270-1 Date Sampled: 08/12/2015 1000
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-A-3-1**

Lab Sample ID: 240-54270-2 Date Sampled: 08/12/2015 1005
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	9.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-A-4-1**

Lab Sample ID: 240-54270-3 Date Sampled: 08/12/2015 1010
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	91		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	9.2		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-A-1-2**

Lab Sample ID: 240-54270-4 Date Sampled: 08/12/2015 1015
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-A-3-2**

Lab Sample ID: 240-54270-5 Date Sampled: 08/12/2015 1020
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-C-1-1**

Lab Sample ID: 240-54270-6 Date Sampled: 08/12/2015 1230
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-C-2-1**

Lab Sample ID: 240-54270-7 Date Sampled: 08/12/2015 1235
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-C-3-1**

Lab Sample ID: 240-54270-8 Date Sampled: 08/12/2015 1240
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-C-4-1**

Lab Sample ID: 240-54270-9 Date Sampled: 08/12/2015 1245
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	10		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-C-1-2**

Lab Sample ID: 240-54270-10 Date Sampled: 08/12/2015 1250
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-C-2-2**

Lab Sample ID: 240-54270-11 Date Sampled: 08/12/2015 1255
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-C-3-2**

Lab Sample ID: 240-54270-12 Date Sampled: 08/12/2015 1300
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-C-4-2**

Lab Sample ID: 240-54270-13 Date Sampled: 08/12/2015 1305
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP02-081215**

Lab Sample ID: 240-54270-14 Date Sampled: 08/12/2015 0000
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	10		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-E-2-1**

Lab Sample ID: 240-54270-15 Date Sampled: 08/12/2015 1500
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	10		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-E-3-2**

Lab Sample ID: 240-54270-16 Date Sampled: 08/12/2015 1505
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-E-6-2**

Lab Sample ID: 240-54270-17 Date Sampled: 08/12/2015 1510
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP03-081215**

Lab Sample ID: 240-54270-18 Date Sampled: 08/12/2015 0000
Client Matrix: Solid Date Received: 08/13/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54270-1	D-VS-A-1-1	61	50	60	64	44	79
240-54270-2	D-VS-A-3-1	43	39	44	52	40	68
240-54270-3	D-VS-A-4-1	58	46	53	63	38	78
240-54270-4	D-VB-A-1-2	63	61	62	71	36	84
240-54270-5	D-VB-A-3-2	54	52	53	59	22	72
240-54270-6	D-VS-C-1-1	63	59	61	64	37	81
240-54270-7	D-VS-C-2-1	58	50	59	62	44	77
240-54270-8	D-VS-C-3-1	59	56	56	59	30	73
240-54270-9	D-VS-C-4-1	55	54	55	60	38	75
240-54270-10	D-VB-C-1-2	57	58	56	60	45	76
240-54270-11	D-VB-C-2-2	57	59	56	63	44	75
240-54270-12	D-VB-C-3-2	60	62	48	53	35	66
240-54270-13	D-VB-C-4-2	57	51	51	57	39	65
240-54270-14	D-DUP02-081215	60	60	59	63	53	78
240-54270-15	D-VS-E-2-1	39	41	41	46	2X	52
240-54270-16	D-VB-E-3-2	57	53	56	60	14	73
240-54270-17	D-VB-E-6-2	67	61	63	71	8X	81
240-54270-18	D-DUP03-081215	55	55	56	60	15	73
MB 240-193298/23-A		67	71	62	67	33	85
MB 240-193424/10-A		45	50	42	47	11	50
LCS 240-193298/24-A		63	65	65	63	57	83
LCS 240-193424/11-A		67	69	60	63	22	67

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Method Blank - Batch: 240-193298

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-193298/23-A	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-193298	Lab File ID:	50818003.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 0812	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	85	36 - 110
Phenol-d5 (Surr)	71	26 - 110
Nitrobenzene-d5 (Surr)	62	20 - 110
2-Fluorophenol (Surr)	67	24 - 110
2-Fluorobiphenyl (Surr)	67	24 - 110
2,4,6-Tribromophenol (Surr)	33	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Control Sample - Batch: 240-193298

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-193298/24-A	Analysis Batch:	240-193684	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-193298	Lab File ID:	50818004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 0837	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/14/2015 0927			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	430	65	38 - 110	
Acenaphthylene	667	424	64	40 - 110	
Anthracene	667	465	70	48 - 110	
Benzo[a]anthracene	667	481	72	50 - 110	
Benzo[a]pyrene	667	510	77	44 - 110	
Benzo[b]fluoranthene	667	502	75	43 - 110	
Benzo[g,h,i]perylene	667	560	84	51 - 110	
Benzo[k]fluoranthene	667	529	79	38 - 105	
Chrysene	667	506	76	50 - 110	
Dibenz(a,h)anthracene	667	544	82	51 - 110	
Fluoranthene	667	500	75	51 - 110	
Fluorene	667	444	67	46 - 110	
Indeno[1,2,3-cd]pyrene	667	552	83	50 - 110	
Naphthalene	667	434	65	36 - 110	
Phenanthrene	667	459	69	49 - 110	
Pyrene	667	512	77	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	83	36 - 110
Phenol-d5 (Surr)	65	26 - 110
Nitrobenzene-d5 (Surr)	65	20 - 110
2-Fluorophenol (Surr)	63	24 - 110
2-Fluorobiphenyl (Surr)	63	24 - 110
2,4,6-Tribromophenol (Surr)	57	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Method Blank - Batch: 240-193424

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-193424/10-A	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193424	Lab File ID:	50818017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 1434	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	50	36 - 110
Phenol-d5 (Surr)	50	26 - 110
Nitrobenzene-d5 (Surr)	42	20 - 110
2-Fluorophenol (Surr)	45	24 - 110
2-Fluorobiphenyl (Surr)	47	24 - 110
2,4,6-Tribromophenol (Surr)	11	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Control Sample - Batch: 240-193424

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-193424/11-A	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193424	Lab File ID:	50818004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 1346	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	412	62	38 - 110	
Acenaphthylene	667	420	63	40 - 110	
Anthracene	667	439	66	48 - 110	
Benzo[a]anthracene	667	432	65	50 - 110	
Benzo[a]pyrene	667	458	69	44 - 110	
Benzo[b]fluoranthene	667	446	67	43 - 110	
Benzo[g,h,i]perylene	667	491	74	51 - 110	
Benzo[k]fluoranthene	667	437	66	38 - 105	
Chrysene	667	466	70	50 - 110	
Dibenz(a,h)anthracene	667	517	78	51 - 110	
Fluoranthene	667	444	67	51 - 110	
Fluorene	667	401	60	46 - 110	
Indeno[1,2,3-cd]pyrene	667	526	79	50 - 110	
Naphthalene	667	421	63	36 - 110	
Phenanthrene	667	430	65	49 - 110	
Pyrene	667	428	64	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	67	36 - 110
Phenol-d5 (Surr)	69	26 - 110
Nitrobenzene-d5 (Surr)	60	20 - 110
2-Fluorophenol (Surr)	67	24 - 110
2-Fluorobiphenyl (Surr)	63	24 - 110
2,4,6-Tribromophenol (Surr)	22	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Duplicate - Batch: 240-193382

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54270-10	Analysis Batch:	240-193382	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/14/2015 1502	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	84	85	0.6	20	
Percent Moisture	16	15	4	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

Client: Tetra Tech, Inc. Job Number: 240-54270-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-193298					
LCS 240-193298/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-193298/23-A	Method Blank	T	Solid	3540C	
240-54270-1	D-VS-A-1-1	T	Solid	3540C	
240-54270-2	D-VS-A-3-1	T	Solid	3540C	
240-54270-3	D-VS-A-4-1	T	Solid	3540C	
240-54270-4	D-VB-A-1-2	T	Solid	3540C	
240-54270-5	D-VB-A-3-2	T	Solid	3540C	
240-54270-6	D-VS-C-1-1	T	Solid	3540C	
240-54270-7	D-VS-C-2-1	T	Solid	3540C	
240-54270-8	D-VS-C-3-1	T	Solid	3540C	
240-54270-9	D-VS-C-4-1	T	Solid	3540C	
240-54270-10	D-VB-C-1-2	T	Solid	3540C	
240-54270-11	D-VB-C-2-2	T	Solid	3540C	
240-54270-13	D-VB-C-4-2	T	Solid	3540C	
240-54270-14	D-DUP02-081215	T	Solid	3540C	
240-54270-15	D-VS-E-2-1	T	Solid	3540C	
240-54270-16	D-VB-E-3-2	T	Solid	3540C	
240-54270-17	D-VB-E-6-2	T	Solid	3540C	
240-54270-18	D-DUP03-081215	T	Solid	3540C	
Prep Batch: 240-193424					
LCS 240-193424/11-A	Lab Control Sample	T	Solid	3540C	
MB 240-193424/10-A	Method Blank	T	Solid	3540C	
240-54270-12	D-VB-C-3-2	T	Solid	3540C	
Analysis Batch:240-193684					
LCS 240-193298/24-A	Lab Control Sample	T	Solid	8270D	240-193298
MB 240-193298/23-A	Method Blank	T	Solid	8270D	240-193298
240-54270-1	D-VS-A-1-1	T	Solid	8270D	240-193298
240-54270-2	D-VS-A-3-1	T	Solid	8270D	240-193298
240-54270-3	D-VS-A-4-1	T	Solid	8270D	240-193298
240-54270-4	D-VB-A-1-2	T	Solid	8270D	240-193298
240-54270-5	D-VB-A-3-2	T	Solid	8270D	240-193298
240-54270-6	D-VS-C-1-1	T	Solid	8270D	240-193298
240-54270-7	D-VS-C-2-1	T	Solid	8270D	240-193298
240-54270-8	D-VS-C-3-1	T	Solid	8270D	240-193298
240-54270-9	D-VS-C-4-1	T	Solid	8270D	240-193298
240-54270-10	D-VB-C-1-2	T	Solid	8270D	240-193298
240-54270-11	D-VB-C-2-2	T	Solid	8270D	240-193298
240-54270-13	D-VB-C-4-2	T	Solid	8270D	240-193298
240-54270-14	D-DUP02-081215	T	Solid	8270D	240-193298
240-54270-15	D-VS-E-2-1	T	Solid	8270D	240-193298
240-54270-16	D-VB-E-3-2	T	Solid	8270D	240-193298
240-54270-17	D-VB-E-6-2	T	Solid	8270D	240-193298
240-54270-18	D-DUP03-081215	T	Solid	8270D	240-193298

Client: Tetra Tech, Inc. Job Number: 240-54270-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:240-193693					
LCS 240-193424/11-A	Lab Control Sample	T	Solid	8270D	240-193424
MB 240-193424/10-A	Method Blank	T	Solid	8270D	240-193424
240-54270-12	D-VB-C-3-2	T	Solid	8270D	240-193424

Report Basis
T = Total

General Chemistry					
Analysis Batch:240-193382					
240-54270-1	D-VS-A-1-1	T	Solid	Moisture	
240-54270-2	D-VS-A-3-1	T	Solid	Moisture	
240-54270-3	D-VS-A-4-1	T	Solid	Moisture	
240-54270-4	D-VB-A-1-2	T	Solid	Moisture	
240-54270-5	D-VB-A-3-2	T	Solid	Moisture	
240-54270-6	D-VS-C-1-1	T	Solid	Moisture	
240-54270-7	D-VS-C-2-1	T	Solid	Moisture	
240-54270-8	D-VS-C-3-1	T	Solid	Moisture	
240-54270-9	D-VS-C-4-1	T	Solid	Moisture	
240-54270-10	D-VB-C-1-2	T	Solid	Moisture	
240-54270-10DU	Duplicate	T	Solid	Moisture	
240-54270-11	D-VB-C-2-2	T	Solid	Moisture	
240-54270-12	D-VB-C-3-2	T	Solid	Moisture	
240-54270-13	D-VB-C-4-2	T	Solid	Moisture	
240-54270-14	D-DUP02-081215	T	Solid	Moisture	
240-54270-15	D-VS-E-2-1	T	Solid	Moisture	
240-54270-16	D-VB-E-3-2	T	Solid	Moisture	
240-54270-17	D-VB-E-6-2	T	Solid	Moisture	
240-54270-18	D-DUP03-081215	T	Solid	Moisture	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Laboratory Chronicle

Lab ID: 240-54270-1 **Client ID: D-VS-A-1-1**

Sample Date/Time: 08/12/2015 10:00 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-1-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-1-A		240-193684	240-193298	08/18/2015 13:34	1	TAL CAN	MRU
A:Moisture	240-54270-A-1		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-2 **Client ID: D-VS-A-3-1**

Sample Date/Time: 08/12/2015 10:05 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-2-A		240-193684	240-193298	08/14/2015 09:27	2	TAL CAN	SDE
A:8270D	240-54270-B-2-A		240-193684	240-193298	08/18/2015 15:13	2	TAL CAN	MRU
A:Moisture	240-54270-A-2		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-3 **Client ID: D-VS-A-4-1**

Sample Date/Time: 08/12/2015 10:10 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-3-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-3-A		240-193684	240-193298	08/18/2015 15:38	1	TAL CAN	MRU
A:Moisture	240-54270-A-3		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-4 **Client ID: D-VB-A-1-2**

Sample Date/Time: 08/12/2015 10:15 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-4-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-4-A		240-193684	240-193298	08/18/2015 13:59	1	TAL CAN	MRU
A:Moisture	240-54270-A-4		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-5 **Client ID: D-VB-A-3-2**

Sample Date/Time: 08/12/2015 10:20 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-5-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-5-A		240-193684	240-193298	08/18/2015 16:03	1	TAL CAN	MRU
A:Moisture	240-54270-A-5		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Laboratory Chronicle

Lab ID: 240-54270-6 **Client ID: D-VS-C-1-1**

Sample Date/Time: 08/12/2015 12:30 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-6-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-6-A		240-193684	240-193298	08/18/2015 12:44	1	TAL CAN	MRU
A:Moisture	240-54270-A-6		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-7 **Client ID: D-VS-C-2-1**

Sample Date/Time: 08/12/2015 12:35 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-7-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-7-A		240-193684	240-193298	08/18/2015 16:28	1	TAL CAN	MRU
A:Moisture	240-54270-A-7		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-8 **Client ID: D-VS-C-3-1**

Sample Date/Time: 08/12/2015 12:40 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-8-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-8-A		240-193684	240-193298	08/18/2015 14:24	1	TAL CAN	MRU
A:Moisture	240-54270-A-8		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-9 **Client ID: D-VS-C-4-1**

Sample Date/Time: 08/12/2015 12:45 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-9-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-9-A		240-193684	240-193298	08/18/2015 13:09	1	TAL CAN	MRU
A:Moisture	240-54270-A-9		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-10 **Client ID: D-VB-C-1-2**

Sample Date/Time: 08/12/2015 12:50 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-10-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-10-A		240-193684	240-193298	08/18/2015 11:54	1	TAL CAN	MRU
A:Moisture	240-54270-A-10		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Laboratory Chronicle

Lab ID: 240-54270-10 DU **Client ID: D-VB-C-1-2**

Sample Date/Time: 08/12/2015 12:50 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54270-A-10 DU		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-11 **Client ID: D-VB-C-2-2**

Sample Date/Time: 08/12/2015 12:55 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-11-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-11-A		240-193684	240-193298	08/18/2015 10:15	1	TAL CAN	MRU
A:Moisture	240-54270-A-11		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-12 **Client ID: D-VB-C-3-2**

Sample Date/Time: 08/12/2015 13:00 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-12-B		240-193693	240-193424	08/15/2015 10:25	1	TAL CAN	SDE
A:8270D	240-54270-B-12-B		240-193693	240-193424	08/18/2015 14:10	1	TAL CAN	JMG
A:Moisture	240-54270-A-12		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-13 **Client ID: D-VB-C-4-2**

Sample Date/Time: 08/12/2015 13:05 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-13-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-13-A		240-193684	240-193298	08/18/2015 10:40	1	TAL CAN	MRU
A:Moisture	240-54270-A-13		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-14 **Client ID: D-DUP02-081215**

Sample Date/Time: 08/12/2015 00:00 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-14-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-14-A		240-193684	240-193298	08/18/2015 12:19	1	TAL CAN	MRU
A:Moisture	240-54270-A-14		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Laboratory Chronicle

Lab ID: 240-54270-15 **Client ID: D-VS-E-2-1**

Sample Date/Time: 08/12/2015 15:00 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-15-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-15-A		240-193684	240-193298	08/18/2015 14:49	1	TAL CAN	MRU
A:Moisture	240-54270-A-15		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-16 **Client ID: D-VB-E-3-2**

Sample Date/Time: 08/12/2015 15:05 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-16-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-16-A		240-193684	240-193298	08/18/2015 11:05	1	TAL CAN	MRU
A:Moisture	240-54270-A-16		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-17 **Client ID: D-VB-E-6-2**

Sample Date/Time: 08/12/2015 15:10 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-17-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-17-A		240-193684	240-193298	08/18/2015 16:53	1	TAL CAN	MRU
A:Moisture	240-54270-A-17		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54270-18 **Client ID: D-DUP03-081215**

Sample Date/Time: 08/12/2015 00:00 Received Date/Time: 08/13/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54270-B-18-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	240-54270-B-18-A		240-193684	240-193298	08/18/2015 11:29	1	TAL CAN	MRU
A:Moisture	240-54270-A-18		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	MB 240-193298/23-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	MB 240-193298/23-A		240-193684	240-193298	08/18/2015 08:12	1	TAL CAN	MRU
P:3540C	MB 240-193424/10-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	MB 240-193424/10-A		240-193693	240-193424	08/18/2015 14:34	1	TAL CAN	JMG

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	LCS 240-193298/24-A		240-193684	240-193298	08/14/2015 09:27	1	TAL CAN	SDE
A:8270D	LCS 240-193298/24-A		240-193684	240-193298	08/18/2015 08:37	1	TAL CAN	MRU
P:3540C	LCS 240-193424/11-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	LCS 240-193424/11-A		240-193693	240-193424	08/18/2015 13:46	1	TAL CAN	JMG

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00027	06/10/16	07/23/15	MEOH, Lot 0000085233	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00048	08/31/16	08/03/15	MEOH, Lot 147358	200 mL	EXLIST1_S1_00003	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.EXLIST1_S1_00003	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00025	06/10/16	07/11/15	MEOH, Lot 0000085233	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18	Restek, Lot A092712			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54270-1
Project/Site: MRC Soil Remedy Block D

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-A-1-1	240-54270-1	61	50	60	64	44	79
D-VS-A-3-1	240-54270-2	43	39	44	52	40	68
D-VS-A-4-1	240-54270-3	58	46	53	63	38	78
D-VB-A-1-2	240-54270-4	63	61	62	71	36	84
D-VB-A-3-2	240-54270-5	54	52	53	59	22	72
D-VS-C-1-1	240-54270-6	63	59	61	64	37	81
D-VS-C-2-1	240-54270-7	58	50	59	62	44	77
D-VS-C-3-1	240-54270-8	59	56	56	59	30	73
D-VS-C-4-1	240-54270-9	55	54	55	60	38	75
D-VB-C-1-2	240-54270-10	57	58	56	60	45	76
D-VB-C-2-2	240-54270-11	57	59	56	63	44	75
D-VB-C-3-2	240-54270-12	60	62	48	53	35	66
D-VB-C-4-2	240-54270-13	57	51	51	57	39	65
D-DUP02-081215	240-54270-14	60	60	59	63	53	78
D-VS-E-2-1	240-54270-15	39	41	41	46	2 X	52
D-VB-E-3-2	240-54270-16	57	53	56	60	14	73
D-VB-E-6-2	240-54270-17	67	61	63	71	8 X	81
D-DUP03-081215	240-54270-18	55	55	56	60	15	73
	MB 240-193298/23-A	67	71	62	67	33	85
	MB 240-193424/10-A	45	50	42	47	11	50
	LCS 240-193298/24-A	63	65	65	63	57	83
	LCS 240-193424/11-A	67	69	60	63	22	67

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193298/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	430	65	38-110	
Acenaphthylene	667	424	64	40-110	
Anthracene	667	465	70	48-110	
Benzo[a]anthracene	667	481	72	50-110	
Benzo[a]pyrene	667	510	77	44-110	
Benzo[b]fluoranthene	667	502	75	43-110	
Benzo[g,h,i]perylene	667	560	84	51-110	
Benzo[k]fluoranthene	667	529	79	38-105	
Chrysene	667	506	76	50-110	
Dibenz(a,h)anthracene	667	544	82	51-110	
Fluoranthene	667	500	75	51-110	
Fluorene	667	444	67	46-110	
Indeno[1,2,3-cd]pyrene	667	552	83	50-110	
Naphthalene	667	434	65	36-110	
Phenanthrene	667	459	69	49-110	
Pyrene	667	512	77	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193424/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	412	62	38-110	
Acenaphthylene	667	420	63	40-110	
Anthracene	667	439	66	48-110	
Benzo[a]anthracene	667	432	65	50-110	
Benzo[a]pyrene	667	458	69	44-110	
Benzo[b]fluoranthene	667	446	67	43-110	
Benzo[g,h,i]perylene	667	491	74	51-110	
Benzo[k]fluoranthene	667	437	66	38-105	
Chrysene	667	466	70	50-110	
Dibenz(a,h)anthracene	667	517	78	51-110	
Fluoranthene	667	444	67	51-110	
Fluorene	667	401	60	46-110	
Indeno[1,2,3-cd]pyrene	667	526	79	50-110	
Naphthalene	667	421	63	36-110	
Phenanthrene	667	430	65	49-110	
Pyrene	667	428	64	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818003.D Lab Sample ID: MB 240-193298/23-A

Matrix: Solid Date Extracted: 08/14/2015 09:27

Instrument ID: A4HP9 Date Analyzed: 08/18/2015 08:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193298/24-A	50818004.D	08/18/2015 08:37
D-VB-C-2-2	240-54270-11	50818008.D	08/18/2015 10:15
D-VB-C-4-2	240-54270-13	50818009.D	08/18/2015 10:40
D-VB-E-3-2	240-54270-16	50818010.D	08/18/2015 11:05
D-DUP03-081215	240-54270-18	50818011.D	08/18/2015 11:29
D-VB-C-1-2	240-54270-10	50818012.D	08/18/2015 11:54
D-DUP02-081215	240-54270-14	50818013.D	08/18/2015 12:19
D-VS-C-1-1	240-54270-6	50818014.D	08/18/2015 12:44
D-VS-C-4-1	240-54270-9	50818015.D	08/18/2015 13:09
D-VS-A-1-1	240-54270-1	50818016.D	08/18/2015 13:34
D-VB-A-1-2	240-54270-4	50818017.D	08/18/2015 13:59
D-VS-C-3-1	240-54270-8	50818018.D	08/18/2015 14:24
D-VS-E-2-1	240-54270-15	50818019.D	08/18/2015 14:49
D-VS-A-3-1	240-54270-2	50818020.D	08/18/2015 15:13
D-VS-A-4-1	240-54270-3	50818021.D	08/18/2015 15:38
D-VB-A-3-2	240-54270-5	50818022.D	08/18/2015 16:03
D-VS-C-2-1	240-54270-7	50818023.D	08/18/2015 16:28
D-VB-E-6-2	240-54270-17	50818024.D	08/18/2015 16:53

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818017.D Lab Sample ID: MB 240-193424/10-A

Matrix: Solid Date Extracted: 08/15/2015 10:20

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 14:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193424/11-A	50818004.D	08/18/2015 13:46
D-VB-C-3-2	240-54270-12	50818005.D	08/18/2015 14:10

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	LCS 240-193424/11-A	50818004.D	08/18/2015	13:46
D-VB-C-3-2	240-54270-12	50818005.D	08/18/2015	14:10
	MB 240-193424/10-A	50818017.D	08/18/2015	14:34

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:26

Analysis Batch No.: 193684

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	75.5	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	57.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	24.7	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	67.5	
443	15.0 - 24.0% of mass 442	13.5	(20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193684/2	50818002.D	08/18/2015	07:47
	MB 240-193298/23-A	50818003.D	08/18/2015	08:12
	LCS 240-193298/24-A	50818004.D	08/18/2015	08:37
D-VB-C-2-2	240-54270-11	50818008.D	08/18/2015	10:15
D-VB-C-4-2	240-54270-13	50818009.D	08/18/2015	10:40
D-VB-E-3-2	240-54270-16	50818010.D	08/18/2015	11:05
D-DUP03-081215	240-54270-18	50818011.D	08/18/2015	11:29
D-VB-C-1-2	240-54270-10	50818012.D	08/18/2015	11:54
D-DUP02-081215	240-54270-14	50818013.D	08/18/2015	12:19
D-VS-C-1-1	240-54270-6	50818014.D	08/18/2015	12:44
D-VS-C-4-1	240-54270-9	50818015.D	08/18/2015	13:09
D-VS-A-1-1	240-54270-1	50818016.D	08/18/2015	13:34
D-VB-A-1-2	240-54270-4	50818017.D	08/18/2015	13:59
D-VS-C-3-1	240-54270-8	50818018.D	08/18/2015	14:24
D-VS-E-2-1	240-54270-15	50818019.D	08/18/2015	14:49
D-VS-A-3-1	240-54270-2	50818020.D	08/18/2015	15:13
D-VS-A-4-1	240-54270-3	50818021.D	08/18/2015	15:38
D-VB-A-3-2	240-54270-5	50818022.D	08/18/2015	16:03
D-VS-C-2-1	240-54270-7	50818023.D	08/18/2015	16:28
D-VB-E-6-2	240-54270-17	50818024.D	08/18/2015	16:53

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		218581	6.11	923296	7.23	508825	8.73
240-54270-12	D-VB-C-3-2	224727	6.11	993936	7.23	553253	8.73
MB 240-193424/10-A		261862	6.11	1132843	7.23	617978	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		825964	9.99	868728	12.62	738287	14.77
240-54270-12	D-VB-C-3-2	926757	9.99	912790	12.62	708401	14.77
MB 240-193424/10-A		1058567	9.99	1066056	12.62	885805	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-193684/2 CCVIS		111426	6.21	425313	7.33	245132	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-193684/2 CCVIS		414265	10.09	461133	12.34	417895	13.98

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193684/2 Date Analyzed: 08/18/2015 07:47

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		111426	6.21	425313	7.33	245132	8.83
UPPER LIMIT		222852	6.71	850626	7.83	490264	9.33
LOWER LIMIT		55713	5.71	212657	6.83	122566	8.33
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193298/23-A		92500	6.21	371860	7.32	216710	8.83
LCS 240-193298/24-A		89327	6.21	337078	7.33	201703	8.83
240-54270-11	D-VB-C-2-2	99793	6.21	374450	7.33	215812	8.83
240-54270-13	D-VB-C-4-2	99520	6.20	383489	7.33	221766	8.83
240-54270-16	D-VB-E-3-2	94801	6.21	357789	7.33	209107	8.83
240-54270-18	D-DUP03-081215	97897	6.21	375665	7.33	221179	8.83
240-54270-10	D-VB-C-1-2	97389	6.21	372220	7.33	219883	8.82
240-54270-14	D-DUP02-081215	96052	6.21	365842	7.32	220758	8.82
240-54270-6	D-VS-C-1-1	90356	6.21	356533	7.33	215202	8.83
240-54270-9	D-VS-C-4-1	100585	6.21	369552	7.32	216311	8.83
240-54270-1	D-VS-A-1-1	99894	6.21	388172	7.33	231772	8.83
240-54270-4	D-VB-A-1-2	102452	6.21	381679	7.32	222285	8.83
240-54270-8	D-VS-C-3-1	99909	6.21	388154	7.33	235175	8.83
240-54270-15	D-VS-E-2-1	103329	6.21	396519	7.32	229144	8.82
240-54270-2	D-VS-A-3-1	98662	6.21	372964	7.32	226013	8.82
240-54270-3	D-VS-A-4-1	101717	6.21	406771	7.32	240750	8.82
240-54270-5	D-VB-A-3-2	104419	6.21	392833	7.33	238950	8.82
240-54270-7	D-VS-C-2-1	106070	6.21	399171	7.33	238503	8.83
240-54270-17	D-VB-E-6-2	100010	6.21	380548	7.32	225138	8.82

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193684/2 Date Analyzed: 08/18/2015 07:47

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		414265	10.09	461133	12.34	417895	13.98
UPPER LIMIT		828530	10.59	922266	12.84	835790	14.48
LOWER LIMIT		207133	9.59	230567	11.84	208948	13.48
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193298/23-A		365062	10.09	407753	12.34	350703	13.97
LCS 240-193298/24-A		339978	10.09	380871	12.34	340006	13.97
240-54270-11	D-VB-C-2-2	366487	10.09	405946	12.34	316906	13.97
240-54270-13	D-VB-C-4-2	377049	10.09	422317	12.34	360010	13.98
240-54270-16	D-VB-E-3-2	364096	10.09	403667	12.34	342965	13.97
240-54270-18	D-DUP03-081215	354017	10.09	409409	12.34	351109	13.97
240-54270-10	D-VB-C-1-2	366722	10.09	415106	12.34	376095	13.97
240-54270-14	D-DUP02-081215	367278	10.09	414900	12.34	376883	13.97
240-54270-6	D-VS-C-1-1	359890	10.09	400744	12.34	378577	13.98
240-54270-9	D-VS-C-4-1	370752	10.08	425658	12.34	400831	13.98
240-54270-1	D-VS-A-1-1	395406	10.09	448176	12.34	414651	13.98
240-54270-4	D-VB-A-1-2	381267	10.08	424666	12.34	414448	13.98
240-54270-8	D-VS-C-3-1	385458	10.09	446645	12.34	415541	13.98
240-54270-15	D-VS-E-2-1	394756	10.08	453735	12.34	443513	13.97
240-54270-2	D-VS-A-3-1	378067	10.09	432853	12.34	419252	13.98
240-54270-3	D-VS-A-4-1	406793	10.08	463627	12.34	448876	13.98
240-54270-5	D-VB-A-3-2	397173	10.09	460972	12.34	438856	13.98
240-54270-7	D-VS-C-2-1	394538	10.09	446989	12.34	436704	13.98
240-54270-17	D-VB-E-6-2	386730	10.09	444368	12.34	429218	13.97

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-1-1 | Lab Sample ID: 240-54270-1

Matrix: Solid | Lab File ID: 50818016.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.18(g) | Date Analyzed: 08/18/2015 13:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.5	J	7.6	0.86
208-96-8	Acenaphthylene	5.4	J	7.6	0.40
120-12-7	Anthracene	6.9	J	7.6	0.88
56-55-3	Benzo[a]anthracene	22		7.6	0.71
50-32-8	Benzo[a]pyrene	22		7.6	0.72
205-99-2	Benzo[b]fluoranthene	31		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	17		7.6	0.40
207-08-9	Benzo[k]fluoranthene	16		7.6	0.77
218-01-9	Chrysene	26		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	40		7.6	0.62
86-73-7	Fluorene	6.3	J	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	15		7.6	0.40
91-20-3	Naphthalene	42		7.6	0.93
85-01-8	Phenanthrene	20		7.6	0.83
129-00-0	Pyrene	40		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-3-1 | Lab Sample ID: 240-54270-2

Matrix: Solid | Lab File ID: 50818020.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.16(g) | Date Analyzed: 08/18/2015 15:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	380		15	1.7
208-96-8	Acenaphthylene	14	J	15	0.77
120-12-7	Anthracene	580		15	1.7
56-55-3	Benzo[a]anthracene	1100		15	1.4
50-32-8	Benzo[a]pyrene	1000		15	1.4
205-99-2	Benzo[b]fluoranthene	1300		15	1.3
191-24-2	Benzo[g,h,i]perylene	710		15	0.77
207-08-9	Benzo[k]fluoranthene	560		15	1.5
218-01-9	Chrysene	1100		15	2.4
53-70-3	Dibenz(a,h)anthracene	180		15	1.5
206-44-0	Fluoranthene	2200		15	1.2
86-73-7	Fluorene	390		15	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	600		15	0.77
91-20-3	Naphthalene	120		15	1.8
85-01-8	Phenanthrene	1800		15	1.6
129-00-0	Pyrene	1700		15	0.97

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	68		36-110
4165-62-2	Phenol-d5 (Surr)	39		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		20-110
367-12-4	2-Fluorophenol (Surr)	43		24-110
321-60-8	2-Fluorobiphenyl (Surr)	52		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-4-1 | Lab Sample ID: 240-54270-3

Matrix: Solid | Lab File ID: 50818021.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:10

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.11(g) | Date Analyzed: 08/18/2015 15:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	80		7.3	0.83
208-96-8	Acenaphthylene	16		7.3	0.38
120-12-7	Anthracene	220		7.3	0.86
56-55-3	Benzo[a]anthracene	580		7.3	0.69
50-32-8	Benzo[a]pyrene	510		7.3	0.70
205-99-2	Benzo[b]fluoranthene	620		7.3	0.65
191-24-2	Benzo[g,h,i]perylene	320		7.3	0.38
207-08-9	Benzo[k]fluoranthene	300		7.3	0.75
218-01-9	Chrysene	570		7.3	1.2
53-70-3	Dibenz(a,h)anthracene	92		7.3	0.72
206-44-0	Fluoranthene	1100		7.3	0.60
86-73-7	Fluorene	98		7.3	0.58
193-39-5	Indeno[1,2,3-cd]pyrene	280		7.3	0.38
91-20-3	Naphthalene	84		7.3	0.90
85-01-8	Phenanthrene	600		7.3	0.80
129-00-0	Pyrene	880		7.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	46		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-A-1-2 | Lab Sample ID: 240-54270-4

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.09(g) | Date Analyzed: 08/18/2015 13:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	35		7.6	0.87
208-96-8	Acenaphthylene	5.1	J	7.6	0.40
120-12-7	Anthracene	45		7.6	0.89
56-55-3	Benzo[a]anthracene	140		7.6	0.72
50-32-8	Benzo[a]pyrene	150		7.6	0.73
205-99-2	Benzo[b]fluoranthene	220		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	110		7.6	0.40
207-08-9	Benzo[k]fluoranthene	77		7.6	0.78
218-01-9	Chrysene	180		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	29		7.6	0.75
206-44-0	Fluoranthene	260		7.6	0.63
86-73-7	Fluorene	48		7.6	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	93		7.6	0.40
91-20-3	Naphthalene	56		7.6	0.94
85-01-8	Phenanthrene	120		7.6	0.83
129-00-0	Pyrene	270		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-A-3-2 | Lab Sample ID: 240-54270-5

Matrix: Solid | Lab File ID: 50818022.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:20

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.07(g) | Date Analyzed: 08/18/2015 16:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	18		7.6	0.86
208-96-8	Acenaphthylene	65		7.6	0.40
120-12-7	Anthracene	31		7.6	0.89
56-55-3	Benzo[a]anthracene	80		7.6	0.71
50-32-8	Benzo[a]pyrene	100		7.6	0.73
205-99-2	Benzo[b]fluoranthene	110		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	100		7.6	0.40
207-08-9	Benzo[k]fluoranthene	49		7.6	0.77
218-01-9	Chrysene	99		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	20		7.6	0.75
206-44-0	Fluoranthene	120		7.6	0.62
86-73-7	Fluorene	24		7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	68		7.6	0.40
91-20-3	Naphthalene	14		7.6	0.93
85-01-8	Phenanthrene	75		7.6	0.83
129-00-0	Pyrene	180		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	52		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-1-1 | Lab Sample ID: 240-54270-6

Matrix: Solid | Lab File ID: 50818014.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:30

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.13(g) | Date Analyzed: 08/18/2015 12:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	60		8.1	0.92
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	99		8.1	0.95
56-55-3	Benzo[a]anthracene	190		8.1	0.77
50-32-8	Benzo[a]pyrene	170		8.1	0.78
205-99-2	Benzo[b]fluoranthene	200		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	110		8.1	0.43
207-08-9	Benzo[k]fluoranthene	110		8.1	0.83
218-01-9	Chrysene	190		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	25		8.1	0.80
206-44-0	Fluoranthene	440		8.1	0.67
86-73-7	Fluorene	51		8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	86		8.1	0.43
91-20-3	Naphthalene	72		8.1	1.0
85-01-8	Phenanthrene	320		8.1	0.89
129-00-0	Pyrene	360		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-2-1 | Lab Sample ID: 240-54270-7

Matrix: Solid | Lab File ID: 50818023.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:35

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.80(g) | Date Analyzed: 08/18/2015 16:28

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	51		7.7	0.88
208-96-8	Acenaphthylene	9.2		7.7	0.40
120-12-7	Anthracene	150		7.7	0.90
56-55-3	Benzo[a]anthracene	140		7.7	0.73
50-32-8	Benzo[a]pyrene	100		7.7	0.74
205-99-2	Benzo[b]fluoranthene	140		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	71		7.7	0.40
207-08-9	Benzo[k]fluoranthene	68		7.7	0.78
218-01-9	Chrysene	140		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	23		7.7	0.76
206-44-0	Fluoranthene	500		7.7	0.63
86-73-7	Fluorene	78		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	66		7.7	0.40
91-20-3	Naphthalene	52		7.7	0.95
85-01-8	Phenanthrene	510		7.7	0.84
129-00-0	Pyrene	410		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-3-1 | Lab Sample ID: 240-54270-8

Matrix: Solid | Lab File ID: 50818018.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:40

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.77(g) | Date Analyzed: 08/18/2015 14:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	130		8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	74		8.2	0.96
56-55-3	Benzo[a]anthracene	82		8.2	0.77
50-32-8	Benzo[a]pyrene	76		8.2	0.78
205-99-2	Benzo[b]fluoranthene	100		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	50		8.2	0.43
207-08-9	Benzo[k]fluoranthene	40		8.2	0.83
218-01-9	Chrysene	87		8.2	1.3
53-70-3	Dibenz(a,h)anthracene	13		8.2	0.81
206-44-0	Fluoranthene	230		8.2	0.67
86-73-7	Fluorene	98		8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	49		8.2	0.43
91-20-3	Naphthalene	69		8.2	1.0
85-01-8	Phenanthrene	330		8.2	0.89
129-00-0	Pyrene	180		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	56		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	30		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-4-1 | Lab Sample ID: 240-54270-9

Matrix: Solid | Lab File ID: 50818015.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:45

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.97(g) | Date Analyzed: 08/18/2015 13:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	33		7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	23		7.5	0.87
56-55-3	Benzo[a]anthracene	57		7.5	0.70
50-32-8	Benzo[a]pyrene	55		7.5	0.72
205-99-2	Benzo[b]fluoranthene	70		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	35		7.5	0.39
207-08-9	Benzo[k]fluoranthene	29		7.5	0.76
218-01-9	Chrysene	61		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	110		7.5	0.61
86-73-7	Fluorene	21		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	33		7.5	0.39
91-20-3	Naphthalene	40		7.5	0.92
85-01-8	Phenanthrene	79		7.5	0.82
129-00-0	Pyrene	99		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	54		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-1-2 | Lab Sample ID: 240-54270-10

Matrix: Solid | Lab File ID: 50818012.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:50

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.98(g) | Date Analyzed: 08/18/2015 11:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	11		7.9	0.75
50-32-8	Benzo[a]pyrene	8.7		7.9	0.76
205-99-2	Benzo[b]fluoranthene	13		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	11		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	24		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	12		7.9	0.87
129-00-0	Pyrene	19		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-2-2 | Lab Sample ID: 240-54270-11

Matrix: Solid | Lab File ID: 50818008.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:55

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.70(g) | Date Analyzed: 08/18/2015 10:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.93	U	8.0	0.93
56-55-3	Benzo[a]anthracene	0.75	U	8.0	0.75
50-32-8	Benzo[a]pyrene	0.76	U	8.0	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	8.0	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	8.0	0.81
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.63	U	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.98	U	8.0	0.98
85-01-8	Phenanthrene	0.87	U	8.0	0.87
129-00-0	Pyrene	0.53	U	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-3-2 | Lab Sample ID: 240-54270-12

Matrix: Solid | Lab File ID: 50818005.D

Analysis Method: 8270D | Date Collected: 08/12/2015 13:00

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:25

Sample wt/vol: 29.74(g) | Date Analyzed: 08/18/2015 14:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	28		8.3	0.95
208-96-8	Acenaphthylene	0.44	U	8.3	0.44
120-12-7	Anthracene	0.97	U	8.3	0.97
56-55-3	Benzo[a]anthracene	4.2	J	8.3	0.78
50-32-8	Benzo[a]pyrene	4.5	J	8.3	0.80
205-99-2	Benzo[b]fluoranthene	6.7	J	8.3	0.73
191-24-2	Benzo[g,h,i]perylene	0.44	U	8.3	0.44
207-08-9	Benzo[k]fluoranthene	0.85	U	8.3	0.85
218-01-9	Chrysene	4.5	J	8.3	1.4
53-70-3	Dibenz(a,h)anthracene	0.82	U	8.3	0.82
206-44-0	Fluoranthene	10		8.3	0.68
86-73-7	Fluorene	7.2	J	8.3	0.66
193-39-5	Indeno[1,2,3-cd]pyrene	0.44	U	8.3	0.44
91-20-3	Naphthalene	19		8.3	1.0
85-01-8	Phenanthrene	11		8.3	0.91
129-00-0	Pyrene	8.1	J	8.3	0.55

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	66		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	48		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	35		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-4-2 | Lab Sample ID: 240-54270-13

Matrix: Solid | Lab File ID: 50818009.D

Analysis Method: 8270D | Date Collected: 08/12/2015 13:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.63(g) | Date Analyzed: 08/18/2015 10:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.95	U	8.2	0.95
56-55-3	Benzo[a]anthracene	0.77	U	8.2	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.2	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.2	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.2	0.83
218-01-9	Chrysene	1.3	U	8.2	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.2	0.81
206-44-0	Fluoranthene	0.67	U	8.2	0.67
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	0.89	U	8.2	0.89
129-00-0	Pyrene	0.54	U	8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	65		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	51		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	39		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-DUP02-081215 | Lab Sample ID: 240-54270-14

Matrix: Solid | Lab File ID: 50818013.D

Analysis Method: 8270D | Date Collected: 08/12/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.33(g) | Date Analyzed: 08/18/2015 12:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.4	0.84
208-96-8	Acenaphthylene	0.39	U	7.4	0.39
120-12-7	Anthracene	16		7.4	0.86
56-55-3	Benzo[a]anthracene	22		7.4	0.70
50-32-8	Benzo[a]pyrene	23		7.4	0.71
205-99-2	Benzo[b]fluoranthene	30		7.4	0.65
191-24-2	Benzo[g,h,i]perylene	17		7.4	0.39
207-08-9	Benzo[k]fluoranthene	15		7.4	0.75
218-01-9	Chrysene	29		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	0.73	U	7.4	0.73
206-44-0	Fluoranthene	60		7.4	0.61
86-73-7	Fluorene	12		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.4	0.39
91-20-3	Naphthalene	18		7.4	0.91
85-01-8	Phenanthrene	52		7.4	0.81
129-00-0	Pyrene	48		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	53		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-E-2-1 | Lab Sample ID: 240-54270-15

Matrix: Solid | Lab File ID: 50818019.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.96(g) | Date Analyzed: 08/18/2015 14:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	16		7.5	0.85
208-96-8	Acenaphthylene	9.2		7.5	0.39
120-12-7	Anthracene	44		7.5	0.87
56-55-3	Benzo[a]anthracene	270		7.5	0.70
50-32-8	Benzo[a]pyrene	310		7.5	0.72
205-99-2	Benzo[b]fluoranthene	510		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	240		7.5	0.39
207-08-9	Benzo[k]fluoranthene	230		7.5	0.76
218-01-9	Chrysene	520		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	57		7.5	0.74
206-44-0	Fluoranthene	620		7.5	0.61
86-73-7	Fluorene	12		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	200		7.5	0.39
91-20-3	Naphthalene	4.3	J	7.5	0.92
85-01-8	Phenanthrene	150		7.5	0.82
129-00-0	Pyrene	540		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	52		36-110
4165-62-2	Phenol-d5 (Surr)	41		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	39		24-110
321-60-8	2-Fluorobiphenyl (Surr)	46		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	2	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-E-3-2 | Lab Sample ID: 240-54270-16

Matrix: Solid | Lab File ID: 50818010.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.60(g) | Date Analyzed: 08/18/2015 11:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	7.9	0.91
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	6.5	J	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	4.9	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	10		7.9	0.66
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	6.2	J	7.9	0.87
129-00-0	Pyrene	8.5		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	14		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-E-6-2 | Lab Sample ID: 240-54270-17

Matrix: Solid | Lab File ID: 50818024.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:10

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.79(g) | Date Analyzed: 08/18/2015 16:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.5		7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	19		7.8	0.91
56-55-3	Benzo[a]anthracene	76		7.8	0.74
50-32-8	Benzo[a]pyrene	80		7.8	0.75
205-99-2	Benzo[b]fluoranthene	110		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	63		7.8	0.41
207-08-9	Benzo[k]fluoranthene	48		7.8	0.79
218-01-9	Chrysene	91		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	14		7.8	0.77
206-44-0	Fluoranthene	150		7.8	0.64
86-73-7	Fluorene	8.2		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	55		7.8	0.41
91-20-3	Naphthalene	7.6	J	7.8	0.96
85-01-8	Phenanthrene	77		7.8	0.85
129-00-0	Pyrene	130		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-DUP03-081215 | Lab Sample ID: 240-54270-18

Matrix: Solid | Lab File ID: 50818011.D

Analysis Method: 8270D | Date Collected: 08/12/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.64(g) | Date Analyzed: 08/18/2015 11:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.1	0.92
208-96-8	Acenaphthylene	0.42	U	8.1	0.42
120-12-7	Anthracene	0.94	U	8.1	0.94
56-55-3	Benzo[a]anthracene	8.2		8.1	0.76
50-32-8	Benzo[a]pyrene	6.0	J	8.1	0.77
205-99-2	Benzo[b]fluoranthene	13		8.1	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.1	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.1	0.82
218-01-9	Chrysene	11		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	16		8.1	0.67
86-73-7	Fluorene	0.64	U	8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.1	0.42
91-20-3	Naphthalene	0.99	U	8.1	0.99
85-01-8	Phenanthrene	8.0	J	8.1	0.88
129-00-0	Pyrene	14		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	55		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID (1): CCV 240-193684/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/18/2015 07:47

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.99	100.0
Phenol-d5 (Surr)	5.87	100.0
Nitrobenzene-d5 (Surr)	6.69	100.0
Naphthalene	7.35	100.0
2-Fluorobiphenyl (Surr)	8.23	100.0
Acenaphthylene	8.71	100.0
Acenaphthene	8.86	100.0
Fluorene	9.29	100.0
2,4,6-Tribromophenol (Surr)	9.50	100.0
Phenanthrene	10.11	100.0
Anthracene	10.15	100.0
Fluoranthene	11.12	100.0
Pyrene	11.32	100.0
Terphenyl-d14 (Surr)	11.40	100.0
Benzo[a]anthracene	12.33	100.0
Chrysene	12.37	100.0
Benzo[b]fluoranthene	13.47	37.20
Benzo[k]fluoranthene	13.50	100.0
Benzo[a]pyrene	13.90	100.0
Indeno[1,2,3-cd]pyrene	15.74	100.0
Dibenz(a,h)anthracene	15.75	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 | Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9339		9.47	10.0	-5.3	20.0
N-Nitrosodimethylamine	Ave	1.693	1.585		9.36	10.0	-6.4	20.0
Pyridine	Ave	2.930	2.610		8.91	10.0	-10.9	20.0
Benzaldehyde	Ave	2.328	2.222	0.0100	19.1	20.0	-4.6	20.0
Phenol	Ave	2.775	2.882	0.8000	10.4	10.0	3.8	20.0
Aniline	Ave	3.583	3.335		9.31	10.0	-6.9	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.404	0.7000	9.59	10.0	-4.1	20.0
2-Chlorophenol	Ave	1.523	1.500	0.8000	9.85	10.0	-1.5	20.0
n-Decane	Ave	1.999	1.941		9.71	10.0	-2.9	20.0
1,3-Dichlorobenzene	Ave	1.630	1.586		9.73	10.0	-2.7	20.0
1,4-Dichlorobenzene	Ave	1.666	1.604		9.63	10.0	-3.7	20.0
Benzyl alcohol	Ave	1.232	1.168		9.47	10.0	-5.3	20.0
1,2-Dichlorobenzene	Ave	1.580	1.536		9.72	10.0	-2.8	20.0
2-Methylphenol	Ave	1.706	1.619	0.7000	9.49	10.0	-5.1	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.740		9.23	10.0	-7.7	20.0
Indene	Ave	3.185	3.066		19.2	20.0	-3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.903	0.5000	9.61	10.0	-3.9	20.0
Acetophenone	Ave	2.817	2.697	0.0100	9.58	10.0	-4.2	20.0
3 & 4 Methylphenol	Ave	1.799	1.651		9.18	10.0	-8.2	20.0
Hexachloroethane	Ave	0.8166	0.8145	0.3000	9.97	10.0	-0.3	20.0
Nitrobenzene	Ave	0.7749	0.7808	0.2000	10.1	10.0	0.8	20.0
Isophorone	Ave	1.226	1.220	0.4000	9.95	10.0	-0.5	20.0
2-Nitrophenol	Ave	0.1796	0.1874	0.1000	10.4	10.0	4.4	20.0
2,4-Dimethylphenol	Ave	0.4892	0.5082	0.2000	10.4	10.0	3.9	20.0
Benzoic acid	Lin1		0.1809		16.2	20.0	-19.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6729	0.3000	9.95	10.0	-0.5	20.0
2,4-Dichlorophenol	Ave	0.3062	0.3022	0.2000	9.87	10.0	-1.3	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3303		10.2	10.0	1.5	20.0
Naphthalene	Ave	1.144	1.085	0.7000	9.49	10.0	-5.1	20.0
4-Chloroaniline	Ave	0.4932	0.4696	0.0100	9.52	10.0	-4.8	20.0
2,6-Dichlorophenol	Ave	0.2967	0.3018		10.2	10.0	1.7	20.0
Hexachlorobutadiene	Ave	0.2017	0.2134	0.0100	10.6	10.0	5.8	20.0
Caprolactam	Ave	0.1384	0.1457	0.0100	21.0	20.0	5.2	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4159	0.2000	9.94	10.0	-0.6	20.0
2-Methylnaphthalene	Ave	0.7006	0.6800	0.4000	9.71	10.0	-2.9	20.0
1-Methylnaphthalene	Ave	0.6168	0.5926		9.61	10.0	-3.9	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.2649	0.0500	7.99	10.0	-20.1*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5795	0.0100	10.2	10.0	1.8	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3863	0.2000	10.3	10.0	3.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3777	0.2000	9.57	10.0	-4.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.408	0.0100	9.49	10.0	-5.1	20.0
2-Chloronaphthalene	Ave	1.171	1.138	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.6109	0.6203	0.0100	10.2	10.0	1.5	20.0
Dimethyl phthalate	Ave	1.267	1.291	0.0100	10.2	10.0	1.9	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2097		10.6	10.0	6.3	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.3066		10.9	10.0	9.3	20.0
Acenaphthylene	Ave	1.869	1.813	0.9000	9.70	10.0	-3.0	20.0
3-Nitroaniline	Ave	0.3056	0.3130	0.0100	10.2	10.0	2.4	20.0
2,4-Dinitrophenol	Lin1		0.1441	0.0100	19.8	20.0	-0.9	20.0
Acenaphthene	Ave	1.201	1.159	0.9000	9.66	10.0	-3.4	20.0
4-Nitrophenol	Ave	0.2548	0.3002		23.6	20.0	17.8	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.4191	0.2000	11.2	10.0	12.0	20.0
Dibenzofuran	Ave	1.648	1.587	0.8000	9.63	10.0	-3.7	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3346	0.0100	10.6	10.0	6.3	20.0
Diethyl phthalate	Ave	1.245	1.301	0.0100	10.5	10.0	4.5	20.0
Hexadecane	Ave	1.016	0.9757		9.60	10.0	-4.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.6163	0.4000	10.0	10.0	0.4	20.0
4-Nitroaniline	Ave	0.2967	0.3358	0.0100	11.3	10.0	13.1	20.0
Fluorene	Ave	1.379	1.301	0.9000	9.44	10.0	-5.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1336	0.0100	21.7	20.0	8.5	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5478	0.0100	19.3	20.0	-3.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.509		9.55	10.0	-4.5	20.0
Azobenzene	Ave	1.580	1.508		9.55	10.0	-4.5	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2110	0.1000	9.88	10.0	-1.2	20.0
Hexachlorobenzene	Ave	0.2114	0.2167	0.1000	10.2	10.0	2.5	20.0
Atrazine	Ave	0.2132	0.2261	0.0100	21.2	20.0	6.0	20.0
n-Octadecane	Ave	0.6421	0.5913		9.21	10.0	-7.9	20.0
Pentachlorophenol	Ave	0.1444	0.1373	0.0500	19.0	20.0	-4.9	20.0
Phenanthrene	Ave	1.268	1.153	0.7000	9.09	10.0	-9.1	20.0
Anthracene	Ave	1.261	1.184	0.7000	9.39	10.0	-6.1	20.0
Carbazole	Ave	1.050	1.066	0.0100	10.2	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.350	0.0100	10.8	10.0	8.0	20.0
Fluoranthene	Ave	1.280	1.283	0.6000	10.0	10.0	0.2	20.0
Benzidine	Lin1		0.6581		21.3	20.0	6.6	20.0
Pyrene	Ave	1.153	1.201	0.6000	10.4	10.0	4.2	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5758	0.0100	10.7	10.0	7.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7786	0.0100	10.6	10.0	6.5	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.4032	0.0100	22.4	20.0	12.2	20.0
Benzo[a]anthracene	Ave	1.234	1.212	0.8000	9.82	10.0	-1.8	20.0
Chrysene	Ave	1.158	1.137	0.7000	9.82	10.0	-1.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.478	0.0100	10.4	10.0	4.2	20.0
Benzo[b]fluoranthene	Ave	1.185	1.133	0.7000	9.56	10.0	-4.4	20.0
Benzo[k]fluoranthene	Ave	1.198	1.304	0.7000	10.9	10.0	8.8	20.0
Benzo[a]pyrene	Ave	1.128	1.142	0.7000	10.1	10.0	1.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.279	0.5000	10.9	10.0	9.1	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.017	0.4000	11.1	10.0	10.6	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.091	0.5000	11.2	10.0	12.0	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.704		9.74	10.0	-2.6	20.0
Phenol-d5 (Surr)	Ave	2.475	2.374		9.59	10.0	-4.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7746		10.0	10.0	-0.0	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.241		9.50	10.0	-5.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1482		11.4	10.0	13.9	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7498		10.2	10.0	1.8	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193298/23-A

Matrix: Solid | Lab File ID: 50818003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 08:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	71		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193424/10-A

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 14:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	42		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-193298/24-A

Matrix: Solid | Lab File ID: 50818004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 08:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	430		6.7	0.76
208-96-8	Acenaphthylene	424		6.7	0.35
120-12-7	Anthracene	465		6.7	0.78
56-55-3	Benzo[a]anthracene	481		6.7	0.63
50-32-8	Benzo[a]pyrene	510		6.7	0.64
205-99-2	Benzo[b]fluoranthene	502		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	560		6.7	0.35
207-08-9	Benzo[k]fluoranthene	529		6.7	0.68
218-01-9	Chrysene	506		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	544		6.7	0.66
206-44-0	Fluoranthene	500		6.7	0.55
86-73-7	Fluorene	444		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	552		6.7	0.35
91-20-3	Naphthalene	434		6.7	0.82
85-01-8	Phenanthrene	459		6.7	0.73
129-00-0	Pyrene	512		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	57		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-193424/11-A

Matrix: Solid | Lab File ID: 50818004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 13:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	412		6.7	0.76
208-96-8	Acenaphthylene	420		6.7	0.35
120-12-7	Anthracene	439		6.7	0.78
56-55-3	Benzo[a]anthracene	432		6.7	0.63
50-32-8	Benzo[a]pyrene	458		6.7	0.64
205-99-2	Benzo[b]fluoranthene	446		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	491		6.7	0.35
207-08-9	Benzo[k]fluoranthene	437		6.7	0.68
218-01-9	Chrysene	466		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	517		6.7	0.66
206-44-0	Fluoranthene	444		6.7	0.55
86-73-7	Fluorene	401		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	526		6.7	0.35
91-20-3	Naphthalene	421		6.7	0.82
85-01-8	Phenanthrene	430		6.7	0.73
129-00-0	Pyrene	428		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	67		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP10 Start Date: 07/23/2015 08:38

Analysis Batch Number: 190307 End Date: 07/23/2015 20:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-190307/1		07/23/2015 08:38	1	50723001.D	DB-624 0.18(mm)
STD9 240-190307/2 IC		07/23/2015 09:02	1	50723002.D	DB-624 0.18(mm)
STD8 240-190307/3 IC		07/23/2015 09:26	1	50723003.D	DB-624 0.18(mm)
STD7 240-190307/4 IC		07/23/2015 09:50	1	50723004.D	DB-624 0.18(mm)
STD6 240-190307/5 ICIS		07/23/2015 10:14	1	50723005.D	DB-624 0.18(mm)
STD5 240-190307/6 IC		07/23/2015 10:39	1	50723006.D	DB-624 0.18(mm)
STD4 240-190307/7 IC		07/23/2015 11:03	1	50723007.D	DB-624 0.18(mm)
STD3 240-190307/8 IC		07/23/2015 11:27	1	50723008.D	DB-624 0.18(mm)
STD2 240-190307/9 IC		07/23/2015 11:51	1	50723009.D	DB-624 0.18(mm)
STD1 240-190307/10 IC		07/23/2015 12:15	1	50723010.D	DB-624 0.18(mm)
ICV 240-190307/11		07/23/2015 12:40	1	50723011.D	DB-624 0.18(mm)
STD9 240-190307/12 IC		07/23/2015 13:04	1		DB-624 0.18(mm)
STD8 240-190307/13 IC		07/23/2015 13:28	1		DB-624 0.18(mm)
STD7 240-190307/14 IC		07/23/2015 13:52	1		DB-624 0.18(mm)
STD6 240-190307/15 IC		07/23/2015 14:16	1		DB-624 0.18(mm)
STD5 240-190307/16 IC		07/23/2015 14:41	1		DB-624 0.18(mm)
STD4 240-190307/17 IC		07/23/2015 15:05	1		DB-624 0.18(mm)
STD3 240-190307/18 IC		07/23/2015 15:29	1		DB-624 0.18(mm)
STD2 240-190307/19 IC		07/23/2015 15:53	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 16:17	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 16:41	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:06	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:30	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:54	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 18:18	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 18:42	50		DB-624 0.18(mm)
ZZZZZ		07/23/2015 19:06	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 20:19	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP10 Start Date: 08/18/2015 12:28

Analysis Batch Number: 193693 End Date: 08/19/2015 00:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-193693/1		08/18/2015 12:28	1	50818001.D	DB-624 0.18(mm)
CCV 240-193693/2 CCVIS		08/18/2015 12:52	1	50818002.D	DB-624 0.18(mm)
LCS 240-193424/11-A		08/18/2015 13:46	1	50818004.D	DB-624 0.18(mm)
240-54270-12	D-VB-C-3-2	08/18/2015 14:10	1	50818005.D	DB-624 0.18(mm)
MB 240-193424/10-A		08/18/2015 14:34	1	50818017.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 14:59	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 15:23	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 15:47	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 16:11	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 16:36	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 17:00	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 17:24	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 17:48	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 18:13	2		DB-624 0.18(mm)
ZZZZZ		08/18/2015 18:37	2.5		DB-624 0.18(mm)
ZZZZZ		08/18/2015 19:01	4		DB-624 0.18(mm)
ZZZZZ		08/18/2015 19:49	6.667		DB-624 0.18(mm)
ZZZZZ		08/18/2015 20:14	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 20:38	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 21:02	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 21:26	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 21:50	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 22:14	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 22:38	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:02	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:26	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:50	1		DB-624 0.18(mm)
ZZZZZ		08/19/2015 00:14	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/08/2015 15:10

Analysis Batch Number: 192437 End Date: 08/08/2015 23:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-192437/1		08/08/2015 15:10	1	50808001.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/2 IC		08/08/2015 15:32	1	50808002.D	RXI-5SILMS 0.45(mm)
STD4 240-192437/3 IC		08/08/2015 15:57	1	50808003.D	RXI-5SILMS 0.45(mm)
STD3 240-192437/4 IC		08/08/2015 16:23	1	50808004.D	RXI-5SILMS 0.45(mm)
STD2 240-192437/5 IC		08/08/2015 16:48	1	50808005.D	RXI-5SILMS 0.45(mm)
STD1 240-192437/6 IC		08/08/2015 17:14	1	50808006.D	RXI-5SILMS 0.45(mm)
STD9 240-192437/7 IC		08/08/2015 17:39	1	50808007.D	RXI-5SILMS 0.45(mm)
STD8 240-192437/8 IC		08/08/2015 18:05	1	50808008.D	RXI-5SILMS 0.45(mm)
STD7 240-192437/9 IC		08/08/2015 18:31	1	50808009.D	RXI-5SILMS 0.45(mm)
STD6 240-192437/10 ICIS		08/08/2015 18:56	1	50808010.D	RXI-5SILMS 0.45(mm)
ICV 240-192437/11		08/08/2015 19:22	1	50808011.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/12 IC		08/08/2015 19:48	1		RXI-5SILMS 0.45(mm)
STD4 240-192437/13 IC		08/08/2015 20:13	1		RXI-5SILMS 0.45(mm)
STD3 240-192437/14 IC		08/08/2015 20:39	1		RXI-5SILMS 0.45(mm)
STD2 240-192437/15 IC		08/08/2015 21:04	1		RXI-5SILMS 0.45(mm)
STD6 240-192437/16 IC		08/08/2015 21:30	1		RXI-5SILMS 0.45(mm)
STD7 240-192437/17 IC		08/08/2015 21:55	1		RXI-5SILMS 0.45(mm)
STD8 240-192437/18 IC		08/08/2015 22:21	1		RXI-5SILMS 0.45(mm)
STD9 240-192437/19 IC		08/08/2015 22:47	1		RXI-5SILMS 0.45(mm)
ICV 240-192437/20		08/08/2015 23:12	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/18/2015 07:26

Analysis Batch Number: 193684 End Date: 08/18/2015 16:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-193684/1		08/18/2015 07:26	1	50818001.D	RXI-5SILMS 0.45(mm)
CCV 240-193684/2 CCVIS		08/18/2015 07:47	1	50818002.D	RXI-5SILMS 0.45(mm)
MB 240-193298/23-A		08/18/2015 08:12	1	50818003.D	RXI-5SILMS 0.45(mm)
LCS 240-193298/24-A		08/18/2015 08:37	1	50818004.D	RXI-5SILMS 0.45(mm)
240-54270-11	D-VB-C-2-2	08/18/2015 10:15	1	50818008.D	RXI-5SILMS 0.45(mm)
240-54270-13	D-VB-C-4-2	08/18/2015 10:40	1	50818009.D	RXI-5SILMS 0.45(mm)
240-54270-16	D-VB-E-3-2	08/18/2015 11:05	1	50818010.D	RXI-5SILMS 0.45(mm)
240-54270-18	D-DUP03-081215	08/18/2015 11:29	1	50818011.D	RXI-5SILMS 0.45(mm)
240-54270-10	D-VB-C-1-2	08/18/2015 11:54	1	50818012.D	RXI-5SILMS 0.45(mm)
240-54270-14	D-DUP02-081215	08/18/2015 12:19	1	50818013.D	RXI-5SILMS 0.45(mm)
240-54270-6	D-VS-C-1-1	08/18/2015 12:44	1	50818014.D	RXI-5SILMS 0.45(mm)
240-54270-9	D-VS-C-4-1	08/18/2015 13:09	1	50818015.D	RXI-5SILMS 0.45(mm)
240-54270-1	D-VS-A-1-1	08/18/2015 13:34	1	50818016.D	RXI-5SILMS 0.45(mm)
240-54270-4	D-VB-A-1-2	08/18/2015 13:59	1	50818017.D	RXI-5SILMS 0.45(mm)
240-54270-8	D-VS-C-3-1	08/18/2015 14:24	1	50818018.D	RXI-5SILMS 0.45(mm)
240-54270-15	D-VS-E-2-1	08/18/2015 14:49	1	50818019.D	RXI-5SILMS 0.45(mm)
240-54270-2	D-VS-A-3-1	08/18/2015 15:13	2	50818020.D	RXI-5SILMS 0.45(mm)
240-54270-3	D-VS-A-4-1	08/18/2015 15:38	1	50818021.D	RXI-5SILMS 0.45(mm)
240-54270-5	D-VB-A-3-2	08/18/2015 16:03	1	50818022.D	RXI-5SILMS 0.45(mm)
240-54270-7	D-VS-C-2-1	08/18/2015 16:28	1	50818023.D	RXI-5SILMS 0.45(mm)
240-54270-17	D-VB-E-6-2	08/18/2015 16:53	1	50818024.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Batch Number: 193298 Batch Start Date: 08/14/15 11:45 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/15/15 03:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00027	exBNASPIKE 00048	exBNASURR W 00025	
240-54270-B-1	D-VS-A-1-1	3540C, 8270D	T	30.18 g	2 mL			1 mL	
240-54270-B-2	D-VS-A-3-1	3540C, 8270D	T	30.16 g	2 mL			1 mL	
240-54270-B-3	D-VS-A-4-1	3540C, 8270D	T	30.11 g	2 mL			1 mL	
240-54270-B-4	D-VB-A-1-2	3540C, 8270D	T	30.09 g	2 mL			1 mL	
240-54270-B-5	D-VB-A-3-2	3540C, 8270D	T	30.07 g	2 mL			1 mL	
240-54270-B-6	D-VS-C-1-1	3540C, 8270D	T	30.13 g	2 mL			1 mL	
240-54270-B-7	D-VS-C-2-1	3540C, 8270D	T	29.80 g	2 mL			1 mL	
240-54270-B-8	D-VS-C-3-1	3540C, 8270D	T	29.77 g	2 mL			1 mL	
240-54270-B-9	D-VS-C-4-1	3540C, 8270D	T	29.97 g	2 mL			1 mL	
240-54270-B-10	D-VB-C-1-2	3540C, 8270D	T	29.98 g	2 mL			1 mL	
240-54270-B-11	D-VB-C-2-2	3540C, 8270D	T	29.70 g	2 mL			1 mL	
240-54270-B-13	D-VB-C-4-2	3540C, 8270D	T	29.63 g	2 mL			1 mL	
240-54270-B-14	D-DUP02-081215	3540C, 8270D	T	30.33 g	2 mL			1 mL	
240-54270-B-15	D-VS-E-2-1	3540C, 8270D	T	29.96 g	2 mL			1 mL	
240-54270-B-16	D-VB-E-3-2	3540C, 8270D	T	29.60 g	2 mL			1 mL	
240-54270-B-17	D-VB-E-6-2	3540C, 8270D	T	29.79 g	2 mL			1 mL	
240-54270-B-18	D-DUP03-081215	3540C, 8270D	T	29.64 g	2 mL			1 mL	
MB 240-193298/23		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-193298/24		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339907
Na2SO4 Lot Number	2104026
Prep Solvent Lot #	2137025

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Batch Number: 193424 Batch Start Date: 08/15/15 12:00 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/16/15 04:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00027	exBNASPIKE 00048	exBNASURR W 00026	
MB 240-193424/10		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-193424/11		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	
240-54270-B-12	D-VB-C-3-2	3540C, 8270D	T	29.74 g	2 mL			1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54270-1

SDG No.:

Project: MRC Soil Remedy Block D

Client Sample ID	Lab Sample ID
D-VS-A-1-1	240-54270-1
D-VS-A-3-1	240-54270-2
D-VS-A-4-1	240-54270-3
D-VB-A-1-2	240-54270-4
D-VB-A-3-2	240-54270-5
D-VS-C-1-1	240-54270-6
D-VS-C-2-1	240-54270-7
D-VS-C-3-1	240-54270-8
D-VS-C-4-1	240-54270-9
D-VB-C-1-2	240-54270-10
D-VB-C-2-2	240-54270-11
D-VB-C-3-2	240-54270-12
D-VB-C-4-2	240-54270-13
D-DUP02-081215	240-54270-14
D-VS-E-2-1	240-54270-15
D-VB-E-3-2	240-54270-16
D-VB-E-6-2	240-54270-17
D-DUP03-081215	240-54270-18

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54270-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54270-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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240-54270-1	1	T	15:02	X	X																			
240-54270-2	1	T	15:02	X	X																			
240-54270-3	1	T	15:02	X	X																			
240-54270-4	1	T	15:02	X	X																			
240-54270-5	1	T	15:02	X	X																			
240-54270-6	1	T	15:02	X	X																			
240-54270-7	1	T	15:02	X	X																			
240-54270-8	1	T	15:02	X	X																			
240-54270-9	1	T	15:02	X	X																			
240-54270-10 DU	1	T	15:02	X	X																			
240-54270-10	1	T	15:02	X	X																			
240-54270-11	1	T	15:02	X	X																			
240-54270-12	1	T	15:02	X	X																			
240-54270-13	1	T	15:02	X	X																			
240-54270-14	1	T	15:02	X	X																			
240-54270-15	1	T	15:02	X	X																			
240-54270-16	1	T	15:02	X	X																			
240-54270-17	1	T	15:02	X	X																			
240-54270-18	1	T	15:02	X	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Batch Number: 193382 Batch Start Date: 08/14/15 15:02 Batch Analyst: Nguyen, Diem

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54270-A-1	D-VS-A-1-1	Moisture	T	4.2475 g	10.6084 g	9.8325 g			
240-54270-A-2	D-VS-A-3-1	Moisture	T	4.2475 g	11.6867 g	10.9719 g			
240-54270-A-3	D-VS-A-4-1	Moisture	T	4.2475 g	12.4147 g	11.6657 g			
240-54270-A-4	D-VB-A-1-2	Moisture	T	4.2475 g	15.4816 g	14.0400 g			
240-54270-A-5	D-VB-A-3-2	Moisture	T	4.2475 g	19.2679 g	17.4550 g			
240-54270-A-6	D-VS-C-1-1	Moisture	T	4.2475 g	14.1867 g	12.3920 g			
240-54270-A-7	D-VS-C-2-1	Moisture	T	4.2475 g	14.7329 g	13.3916 g			
240-54270-A-8	D-VS-C-3-1	Moisture	T	4.2475 g	16.4128 g	14.2495 g			
240-54270-A-9	D-VS-C-4-1	Moisture	T	4.2475 g	12.7303 g	11.8447 g			
240-54270-A-10 DU	D-VB-C-1-2	Moisture	T	4.2475 g	8.3451 g	7.7268 g			
240-54270-A-10	D-VB-C-1-2	Moisture	T	4.2475 g	9.6940 g	8.8427 g			
240-54270-A-11	D-VB-C-2-2	Moisture	T	4.2475 g	13.6917 g	12.2373 g			
240-54270-A-12	D-VB-C-3-2	Moisture	T	4.2475 g	15.7113 g	13.5444 g			
240-54270-A-13	D-VB-C-4-2	Moisture	T	4.2475 g	11.1884 g	9.9926 g			
240-54270-A-14	D-DUP02-081215	Moisture	T	4.2475 g	11.7381 g	10.9568 g			
240-54270-A-15	D-VS-E-2-1	Moisture	T	4.2475 g	11.5207 g	10.7626 g			
240-54270-A-16	D-VB-E-3-2	Moisture	T	4.2475 g	11.6972 g	10.5864 g			
240-54270-A-17	D-VB-E-6-2	Moisture	T	4.2475 g	15.8743 g	14.2696 g			
240-54270-A-18	D-DUP03-081215	Moisture	T	4.2475 g	14.5469 g	12.8563 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	08/14/15
Oven Temp when samples are put in oven	103.1 Degrees C
Time samples were place in the oven	15:50
Date samples were removed from oven	8/17/15
Oven Temp when samples removed from oven	103.6 Degrees C
Time Samples were removed from oven	04:40
Oven ID	002
ID number of the thermometer	Tempguard Box C #6

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Batch Number: 193382 Batch Start Date: 08/14/15 15:02 Batch Analyst: Nguyen, Diem

Batch Method: Moisture Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

CHAIN OF CUSTODY RECORD

26 | C3.6

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS — TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1000	X		O-VS-A-1-1	1	X						* SAMPLES GO TO
		1005	X		O-VS-A-3-1		X						TESTAMERICA NORTH CANTON
		1010	X		O-VS-A-4-1		X						* 3 DAY TAT *
		1015		X	O-VB-A-1-2		X						* SCOTT NESBIT IS P/M.
		1020		X	O-VB-A-3-2		X						
		1230	X		~~O-VS-A-3~~ O-VS-C-1-1 (JAM)		X						
		1235	X		O-VS-C-2-1		X						
		1240	X		O-VS-C-3-1		X						
		1245	X		O-VS-C-4-1		X						
		1250		X	O-VB-C-1-2		X						
		1255		X	O-VB-C-2-2		X						
		1300		X	O-VB-C-3-2		X						
		1305		X	O-VB-C-4-2		X						
		—	X		O-DUP02-081215		X						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710			8/12/15 1900	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	
			8/13/15 930		

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Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS — TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1500	X		D-VS-E-2-1	1	X						* ALL SAMPLES GO TO
"	"	1505	X	X	D-VB-E-3-2	"	X						TESTAMERICA NORTH CANTON
"	"	1510	X	X	D-VB-E-6-2	"	X						* 3 DAY TAT
"	"	—	X	X	D-QUB03-081215	"	X						* SCOTT NESBIT IS P.M.

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710			8/12/15 1900	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	
			8/13/15 1130		

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 54270**
Canton Facility

Client Test Tech Site Name

Cooler Received on 8/13/15 Opened on 8/13/15

Cooler unpacked by: Alex Cl.

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # ~~Foam Box~~ ~~Client Cooler~~ Box Other

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 3.6 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-54331-1

Job Description: MRC Soil Remedy Block D

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
8/19/2015 4:37 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/19/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54331-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/14/2015 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6) and D-VB-E-5-2 (240-54331-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/15/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-E-4-2 (240-54331-6).

Samples D-VS-E-1-1 (240-54331-1)[2.5X], D-VS-E-3-1 (240-54331-2)[4X] and D-VB-E-4-2 (240-54331-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693 associated with samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6), D-VB-E-5-2 (240-54331-7), (240-54331-B-7-B MS) and (240-54331-B-7-C MSD). However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6) and D-VB-E-5-2 (240-54331-7) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 190307

Lab Sample ID: STD9 240-190307/2 IC Client Sample ID:

Date Analyzed: 07/23/15 09:02 Lab File ID: 50723002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.60	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD8 240-190307/3 IC Client Sample ID:

Date Analyzed: 07/23/15 09:26 Lab File ID: 50723003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.59	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD7 240-190307/4 IC Client Sample ID:

Date Analyzed: 07/23/15 09:50 Lab File ID: 50723004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.59	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD1 240-190307/10 IC Client Sample ID:

Date Analyzed: 07/23/15 12:15 Lab File ID: 50723010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene-d5 (Surr)	6.62	Poor chromatography	hulat	07/23/15 12:52
Dibenz(a,h)anthracene	16.60	Poor chromatography	hulat	07/23/15 12:48
Benzo[g,h,i]perylene	17.08	Poor chromatography	hulat	07/23/15 12:48

Lab Sample ID: ICV 240-190307/11 Client Sample ID:

Date Analyzed: 07/23/15 12:40 Lab File ID: 50723011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.58	Poor chromatography	hulat	07/23/15 13:03

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 193693

Lab Sample ID: CCV 240-193693/2 CCVIS Client Sample ID:

Date Analyzed: 08/18/15 12:52 Lab File ID: 50818002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.99	Poor chromatography	gruberj	08/18/15 13:10

Lab Sample ID: 240-54331-5 Client Sample ID: D-VB-E-2-2

Date Analyzed: 08/18/15 17:24 Lab File ID: 50818010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	9.42	Poor chromatography	gruberj	08/19/15 10:44
Benzo[g,h,i]perylene	16.99	Poor chromatography	gruberj	08/19/15 10:44

Lab Sample ID: 240-54331-3 Client Sample ID: D-VS-E-4-1

Date Analyzed: 08/18/15 17:48 Lab File ID: 50818011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	9.41	Poor chromatography	gruberj	08/19/15 10:45
Benzo[k]fluoranthene	14.21	Poor chromatography	gruberj	08/19/15 10:45

Lab Sample ID: 240-54331-6 Client Sample ID: D-VB-E-4-2

Date Analyzed: 08/18/15 18:13 Lab File ID: 50818012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.83	Poor chromatography	gruberj	08/19/15 10:46
2,4,6-Tribromophenol (Surr)	9.42	Poor chromatography	gruberj	08/19/15 10:46
Benzo[k]fluoranthene	14.21	Poor chromatography	gruberj	08/19/15 10:46

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 193693

Lab Sample ID: 240-54331-1 Client Sample ID: D-VS-E-1-1

Date Analyzed: 08/18/15 18:37 Lab File ID: 50818013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.82	Poor chromatography	gruberj	08/19/15 10:48
2,4,6-Tribromophenol (Surr)	9.40	Poor chromatography	gruberj	08/19/15 10:48
Benzo[k]fluoranthene	14.21	Poor chromatography	gruberj	08/19/15 10:48

Lab Sample ID: 240-54331-2 Client Sample ID: D-VS-E-3-1

Date Analyzed: 08/18/15 19:01 Lab File ID: 50818014.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.81	Poor chromatography	gruberj	08/19/15 10:50

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54331-1	D-VS-E-1-1	Solid	08/13/2015 0900	08/14/2015 0920
240-54331-2	D-VS-E-3-1	Solid	08/13/2015 0905	08/14/2015 0920
240-54331-3	D-VS-E-4-1	Solid	08/13/2015 0910	08/14/2015 0920
240-54331-4	D-VB-E-1-2	Solid	08/13/2015 0915	08/14/2015 0920
240-54331-5	D-VB-E-2-2	Solid	08/13/2015 0920	08/14/2015 0920
240-54331-6	D-VB-E-4-2	Solid	08/13/2015 0925	08/14/2015 0920
240-54331-7	D-VB-E-5-2	Solid	08/13/2015 0930	08/14/2015 0920

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54331-1	**D-VS-E-1-1**					
Acenaphthene		140		19	ug/Kg	8270D
Acenaphthylene		27		19	ug/Kg	8270D
Anthracene		300		19	ug/Kg	8270D
Benzo[a]anthracene		880		19	ug/Kg	8270D
Benzo[a]pyrene		900		19	ug/Kg	8270D
Benzo[b]fluoranthene		1300		19	ug/Kg	8270D
Benzo[g,h,i]perylene		550		19	ug/Kg	8270D
Benzo[k]fluoranthene		420		19	ug/Kg	8270D
Chrysene		1000		19	ug/Kg	8270D
Dibenz(a,h)anthracene		190		19	ug/Kg	8270D
Fluoranthene		1800		19	ug/Kg	8270D
Fluorene		130		19	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		510		19	ug/Kg	8270D
Naphthalene		66		19	ug/Kg	8270D
Phenanthrene		1100		19	ug/Kg	8270D
Pyrene		1600		19	ug/Kg	8270D
Percent Solids		87		0.10	%	Moisture
Percent Moisture		13		0.10	%	Moisture
240-54331-2	**D-VS-E-3-1**					
Acenaphthene		130		30	ug/Kg	8270D
Acenaphthylene		41		30	ug/Kg	8270D
Anthracene		360		30	ug/Kg	8270D
Benzo[a]anthracene		1700		30	ug/Kg	8270D
Benzo[a]pyrene		2000		30	ug/Kg	8270D
Benzo[b]fluoranthene		2400		30	ug/Kg	8270D
Benzo[g,h,i]perylene		1100		30	ug/Kg	8270D
Benzo[k]fluoranthene		1000		30	ug/Kg	8270D
Chrysene		1900		30	ug/Kg	8270D
Dibenz(a,h)anthracene		400		30	ug/Kg	8270D
Fluoranthene		3000		30	ug/Kg	8270D
Fluorene		96		30	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		1000		30	ug/Kg	8270D
Naphthalene		15	J	30	ug/Kg	8270D
Phenanthrene		1200		30	ug/Kg	8270D
Pyrene		2700		30	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54331-3	**D-VS-E-4-1**					
Acenaphthene		7.2	J	7.6	ug/Kg	8270D
Acenaphthylene		9.9		7.6	ug/Kg	8270D
Anthracene		22		7.6	ug/Kg	8270D
Benzo[a]anthracene		140		7.6	ug/Kg	8270D
Benzo[a]pyrene		180		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		230		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		150		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		99		7.6	ug/Kg	8270D
Chrysene		160		7.6	ug/Kg	8270D
Dibenz(a,h)anthracene		37		7.6	ug/Kg	8270D
Fluoranthene		200		7.6	ug/Kg	8270D
Fluorene		6.7	J	7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		130		7.6	ug/Kg	8270D
Naphthalene		7.7		7.6	ug/Kg	8270D
Phenanthrene		100		7.6	ug/Kg	8270D
Pyrene		210		7.6	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54331-4	**D-VB-E-1-2**					
Acenaphthene		5.8	J	7.9	ug/Kg	8270D
Anthracene		7.5	J	7.9	ug/Kg	8270D
Benzo[a]anthracene		21		7.9	ug/Kg	8270D
Benzo[a]pyrene		19		7.9	ug/Kg	8270D
Benzo[b]fluoranthene		25		7.9	ug/Kg	8270D
Benzo[g,h,i]perylene		12		7.9	ug/Kg	8270D
Benzo[k]fluoranthene		11		7.9	ug/Kg	8270D
Chrysene		21		7.9	ug/Kg	8270D
Fluoranthene		41		7.9	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		11		7.9	ug/Kg	8270D
Phenanthrene		29		7.9	ug/Kg	8270D
Pyrene		35		7.9	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54331-5	**D-VB-E-2-2**					
Benzo[a]anthracene		5.1	J	7.8	ug/Kg	8270D
Benzo[a]pyrene		5.4	J	7.8	ug/Kg	8270D
Benzo[b]fluoranthene		8.0		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		4.9	J	7.8	ug/Kg	8270D
Chrysene		6.9	J	7.8	ug/Kg	8270D
Fluoranthene		8.6		7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		5.3	J	7.8	ug/Kg	8270D
Phenanthrene		6.0	J	7.8	ug/Kg	8270D
Pyrene		7.6	J	7.8	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54331-6	**D-VB-E-4-2**					
Acenaphthene		120		16	ug/Kg	8270D
Acenaphthylene		12	J	16	ug/Kg	8270D
Anthracene		240		16	ug/Kg	8270D
Benzo[a]anthracene		880		16	ug/Kg	8270D
Benzo[a]pyrene		890		16	ug/Kg	8270D
Benzo[b]fluoranthene		1200		16	ug/Kg	8270D
Benzo[g,h,i]perylene		560		16	ug/Kg	8270D
Benzo[k]fluoranthene		440		16	ug/Kg	8270D
Chrysene		950		16	ug/Kg	8270D
Dibenz(a,h)anthracene		190		16	ug/Kg	8270D
Fluoranthene		1600		16	ug/Kg	8270D
Fluorene		95		16	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		500		16	ug/Kg	8270D
Naphthalene		15	J	16	ug/Kg	8270D
Phenanthrene		920		16	ug/Kg	8270D
Pyrene		1400		16	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54331-7	**D-VB-E-5-2**					
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Method	Analyst	Analyst ID
SW846 8270D	Gruber, John	JMG
EPA Moisture	Nguyen, Diem	DTN

Client Sample ID: **D-VS-E-1-1**

Lab Sample ID: 240-54331-1 Date Sampled: 08/13/2015 0900
Client Matrix: Solid % Moisture: 12.8 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818013.D
Dilution:	2.5			Initial Weight/Volume:	30.02 g
Analysis Date:	08/18/2015 1837			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		140		2.2	19
Acenaphthylene		27		1.0	19
Anthracene		300		2.2	19
Benzo[a]anthracene		880		1.8	19
Benzo[a]pyrene		900		1.8	19
Benzo[b]fluoranthene		1300		1.7	19
Benzo[g,h,i]perylene		550		1.0	19
Benzo[k]fluoranthene		420		1.9	19
Chrysene		1000		3.2	19
Dibenz(a,h)anthracene		190		1.9	19
Fluoranthene		1800		1.6	19
Fluorene		130		1.5	19
Indeno[1,2,3-cd]pyrene		510		1.0	19
Naphthalene		66		2.3	19
Phenanthrene		1100		2.1	19
Pyrene		1600		1.3	19

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	58		36 - 110
Phenol-d5 (Surr)	55		26 - 110
Nitrobenzene-d5 (Surr)	45		20 - 110
2-Fluorophenol (Surr)	53		24 - 110
2-Fluorobiphenyl (Surr)	53		24 - 110
2,4,6-Tribromophenol (Surr)	10		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Client Sample ID: D-VS-E-3-1

Lab Sample ID: 240-54331-2 Date Sampled: 08/13/2015 0905
Client Matrix: Solid % Moisture: 11.7 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818014.D
Dilution:	4.0			Initial Weight/Volume:	30.17 g
Analysis Date:	08/18/2015 1901			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		130		3.4	30
Acenaphthylene		41		1.6	30
Anthracene		360		3.5	30
Benzo[a]anthracene		1700		2.8	30
Benzo[a]pyrene		2000		2.9	30
Benzo[b]fluoranthene		2400		2.7	30
Benzo[g,h,i]perylene		1100		1.6	30
Benzo[k]fluoranthene		1000		3.1	30
Chrysene		1900		5.0	30
Dibenz(a,h)anthracene		400		3.0	30
Fluoranthene		3000		2.5	30
Fluorene		96		2.4	30
Indeno[1,2,3-cd]pyrene		1000		1.6	30
Naphthalene		15	J	3.7	30
Phenanthrene		1200		3.3	30
Pyrene		2700		2.0	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	60		36 - 110
Phenol-d5 (Surr)	53		26 - 110
Nitrobenzene-d5 (Surr)	41		20 - 110
2-Fluorophenol (Surr)	47		24 - 110
2-Fluorobiphenyl (Surr)	53		24 - 110
2,4,6-Tribromophenol (Surr)	20		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Client Sample ID: D-VS-E-4-1

Lab Sample ID: 240-54331-3 Date Sampled: 08/13/2015 0910
Client Matrix: Solid % Moisture: 11.6 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818011.D
Dilution:	1.0			Initial Weight/Volume:	29.66 g
Analysis Date:	08/18/2015 1748			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		7.2	J	0.87	7.6
Acenaphthylene		9.9		0.40	7.6
Anthracene		22		0.89	7.6
Benzo[a]anthracene		140		0.72	7.6
Benzo[a]pyrene		180		0.73	7.6
Benzo[b]fluoranthene		230		0.68	7.6
Benzo[g,h,i]perylene		150		0.40	7.6
Benzo[k]fluoranthene		99		0.78	7.6
Chrysene		160		1.3	7.6
Dibenz(a,h)anthracene		37		0.76	7.6
Fluoranthene		200		0.63	7.6
Fluorene		6.7	J	0.61	7.6
Indeno[1,2,3-cd]pyrene		130		0.40	7.6
Naphthalene		7.7		0.94	7.6
Phenanthrene		100		0.84	7.6
Pyrene		210		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	51		36 - 110
Phenol-d5 (Surr)	45		26 - 110
Nitrobenzene-d5 (Surr)	41		20 - 110
2-Fluorophenol (Surr)	45		24 - 110
2-Fluorobiphenyl (Surr)	48		24 - 110
2,4,6-Tribromophenol (Surr)	10		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Client Sample ID: D-VB-E-1-2

Lab Sample ID: 240-54331-4 Date Sampled: 08/13/2015 0915
Client Matrix: Solid % Moisture: 15.4 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818009.D
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Analysis Date:	08/18/2015 1700			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		5.8	J	0.90	7.9
Acenaphthylene		0.41	U	0.41	7.9
Anthracene		7.5	J	0.92	7.9
Benzo[a]anthracene		21		0.74	7.9
Benzo[a]pyrene		19		0.76	7.9
Benzo[b]fluoranthene		25		0.70	7.9
Benzo[g,h,i]perylene		12		0.41	7.9
Benzo[k]fluoranthene		11		0.80	7.9
Chrysene		21		1.3	7.9
Dibenz(a,h)anthracene		0.78	U	0.78	7.9
Fluoranthene		41		0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		11		0.41	7.9
Naphthalene		0.97	U	0.97	7.9
Phenanthrene		29		0.86	7.9
Pyrene		35		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	51		36 - 110
Phenol-d5 (Surr)	46		26 - 110
Nitrobenzene-d5 (Surr)	40		20 - 110
2-Fluorophenol (Surr)	46		24 - 110
2-Fluorobiphenyl (Surr)	43		24 - 110
2,4,6-Tribromophenol (Surr)	12		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Client Sample ID: D-VB-E-2-2

Lab Sample ID: 240-54331-5 Date Sampled: 08/13/2015 0920
Client Matrix: Solid % Moisture: 14.5 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818010.D
Dilution:	1.0			Initial Weight/Volume:	29.83 g
Analysis Date:	08/18/2015 1724			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.89	U	0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		0.92	U	0.92	7.8
Benzo[a]anthracene		5.1	J	0.74	7.8
Benzo[a]pyrene		5.4	J	0.75	7.8
Benzo[b]fluoranthene		8.0		0.69	7.8
Benzo[g,h,i]perylene		4.9	J	0.41	7.8
Benzo[k]fluoranthene		0.80	U	0.80	7.8
Chrysene		6.9	J	1.3	7.8
Dibenz(a,h)anthracene		0.78	U	0.78	7.8
Fluoranthene		8.6		0.65	7.8
Fluorene		0.62	U	0.62	7.8
Indeno[1,2,3-cd]pyrene		5.3	J	0.41	7.8
Naphthalene		0.96	U	0.96	7.8
Phenanthrene		6.0	J	0.86	7.8
Pyrene		7.6	J	0.52	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	50		36 - 110
Phenol-d5 (Surr)	45		26 - 110
Nitrobenzene-d5 (Surr)	36		20 - 110
2-Fluorophenol (Surr)	41		24 - 110
2-Fluorobiphenyl (Surr)	44		24 - 110
2,4,6-Tribromophenol (Surr)	13		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Client Sample ID: D-VB-E-4-2

Lab Sample ID: 240-54331-6 Date Sampled: 08/13/2015 0925
Client Matrix: Solid % Moisture: 14.9 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818012.D
Dilution:	2.0			Initial Weight/Volume:	29.57 g
Analysis Date:	08/18/2015 1813			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		120		1.8	16
Acenaphthylene		12	J	0.83	16
Anthracene		240		1.9	16
Benzo[a]anthracene		880		1.5	16
Benzo[a]pyrene		890		1.5	16
Benzo[b]fluoranthene		1200		1.4	16
Benzo[g,h,i]perylene		560		0.83	16
Benzo[k]fluoranthene		440		1.6	16
Chrysene		950		2.6	16
Dibenz(a,h)anthracene		190		1.6	16
Fluoranthene		1600		1.3	16
Fluorene		95		1.3	16
Indeno[1,2,3-cd]pyrene		500		0.83	16
Naphthalene		15	J	2.0	16
Phenanthrene		920		1.7	16
Pyrene		1400		1.0	16

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	54		36 - 110
Phenol-d5 (Surr)	49		26 - 110
Nitrobenzene-d5 (Surr)	38		20 - 110
2-Fluorophenol (Surr)	44		24 - 110
2-Fluorobiphenyl (Surr)	47		24 - 110
2,4,6-Tribromophenol (Surr)	7	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Client Sample ID: D-VB-E-5-2

Lab Sample ID: 240-54331-7 Date Sampled: 08/13/2015 0930
Client Matrix: Solid % Moisture: 15.2 Date Received: 08/14/2015 0920

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193424	Lab File ID:	50818006.D
Dilution:	1.0			Initial Weight/Volume:	29.73 g
Analysis Date:	08/18/2015 1459			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.42	U	0.42	7.9
Anthracene		0.93	U	0.93	7.9
Benzo[a]anthracene		0.75	U	0.75	7.9
Benzo[a]pyrene		0.76	U	0.76	7.9
Benzo[b]fluoranthene		0.70	U	0.70	7.9
Benzo[g,h,i]perylene		0.42	U	0.42	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		1.3	U	1.3	7.9
Dibenz(a,h)anthracene		0.79	U	0.79	7.9
Fluoranthene		0.65	U	0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	7.9
Naphthalene		0.98	U	0.98	7.9
Phenanthrene		0.87	U	0.87	7.9
Pyrene		0.52	U	0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	55		36 - 110
Phenol-d5 (Surr)	54		26 - 110
Nitrobenzene-d5 (Surr)	44		20 - 110
2-Fluorophenol (Surr)	52		24 - 110
2-Fluorobiphenyl (Surr)	49		24 - 110
2,4,6-Tribromophenol (Surr)	15		10 - 110

General Chemistry

Client Sample ID: **D-VS-E-1-1**

Lab Sample ID: 240-54331-1 Date Sampled: 08/13/2015 0900
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-E-3-1**

Lab Sample ID: 240-54331-2 Date Sampled: 08/13/2015 0905
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-E-4-1**

Lab Sample ID: 240-54331-3 Date Sampled: 08/13/2015 0910
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-E-1-2**

Lab Sample ID: 240-54331-4 Date Sampled: 08/13/2015 0915
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-E-2-2**

Lab Sample ID: 240-54331-5 Date Sampled: 08/13/2015 0920
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-E-4-2**

Lab Sample ID: 240-54331-6 Date Sampled: 08/13/2015 0925
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-E-5-2**

Lab Sample ID: 240-54331-7 Date Sampled: 08/13/2015 0930
Client Matrix: Solid Date Received: 08/14/2015 0920

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193382	Analysis Date: 08/14/2015 1502						DryWt Corrected: N

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54331-1	D-VS-E-1-1	53	55	45	53	10	58
240-54331-2	D-VS-E-3-1	47	53	41	53	20	60
240-54331-3	D-VS-E-4-1	45	45	41	48	10	51
240-54331-4	D-VB-E-1-2	46	46	40	43	12	51
240-54331-5	D-VB-E-2-2	41	45	36	44	13	50
240-54331-6	D-VB-E-4-2	44	49	38	47	7X	54
240-54331-7	D-VB-E-5-2	52	54	44	49	15	55
MB 240-193424/10-A		45	50	42	47	11	50
LCS 240-193424/11-A		67	69	60	63	22	67
240-54331-7 MS	D-VB-E-5-2 MS	49	53	43	48	25	55
240-54331-7 MSD	D-VB-E-5-2 MSD	49	51	40	49	26	59

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Method Blank - Batch: 240-193424

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-193424/10-A	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193424	Lab File ID:	50818017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 1434	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	50	36 - 110
Phenol-d5 (Surr)	50	26 - 110
Nitrobenzene-d5 (Surr)	42	20 - 110
2-Fluorophenol (Surr)	45	24 - 110
2-Fluorobiphenyl (Surr)	47	24 - 110
2,4,6-Tribromophenol (Surr)	11	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Control Sample - Batch: 240-193424

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-193424/11-A	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193424	Lab File ID:	50818004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 1346	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	412	62	38 - 110	
Acenaphthylene	667	420	63	40 - 110	
Anthracene	667	439	66	48 - 110	
Benzo[a]anthracene	667	432	65	50 - 110	
Benzo[a]pyrene	667	458	69	44 - 110	
Benzo[b]fluoranthene	667	446	67	43 - 110	
Benzo[g,h,i]perylene	667	491	74	51 - 110	
Benzo[k]fluoranthene	667	437	66	38 - 105	
Chrysene	667	466	70	50 - 110	
Dibenz(a,h)anthracene	667	517	78	51 - 110	
Fluoranthene	667	444	67	51 - 110	
Fluorene	667	401	60	46 - 110	
Indeno[1,2,3-cd]pyrene	667	526	79	50 - 110	
Naphthalene	667	421	63	36 - 110	
Phenanthrene	667	430	65	49 - 110	
Pyrene	667	428	64	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	67	36 - 110
Phenol-d5 (Surr)	69	26 - 110
Nitrobenzene-d5 (Surr)	60	20 - 110
2-Fluorophenol (Surr)	67	24 - 110
2-Fluorobiphenyl (Surr)	63	24 - 110
2,4,6-Tribromophenol (Surr)	22	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-193424

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54331-7	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193424	Lab File ID:	50818007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.24 g
Analysis Date:	08/18/2015 1523			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54331-7	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193424	Lab File ID:	50818008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	08/18/2015 1547			Final Weight/Volume:	2 mL
Prep Date:	08/15/2015 1020			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	48	51	22 - 110	8	99		
Acenaphthylene	48	52	24 - 110	9	99		
Anthracene	51	58	20 - 110	13	99		
Benzo[a]anthracene	53	59	10 - 122	12	99		
Benzo[a]pyrene	54	62	10 - 110	14	99		
Benzo[b]fluoranthene	56	62	12 - 118	11	99		
Benzo[g,h,i]perylene	60	69	10 - 117	14	99		
Benzo[k]fluoranthene	52	58	10 - 121	11	99		
Chrysene	55	62	10 - 125	13	99		
Dibenz(a,h)anthracene	63	71	14 - 113	12	99		
Fluoranthene	50	58	10 - 110	15	99		
Fluorene	49	53	23 - 110	9	99		
Indeno[1,2,3-cd]pyrene	62	70	10 - 114	13	99		
Naphthalene	45	45	10 - 111	0	99		
Phenanthrene	50	57	10 - 166	13	99		
Pyrene	53	59	10 - 147	12	99		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (Surr)	55	59	36 - 110
Phenol-d5 (Surr)	53	51	26 - 110
Nitrobenzene-d5 (Surr)	43	40	20 - 110
2-Fluorophenol (Surr)	49	49	24 - 110
2-Fluorobiphenyl (Surr)	48	49	24 - 110
2,4,6-Tribromophenol (Surr)	25	26	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-193424

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54331-7	Units:	ug/Kg	MSD Lab Sample ID:	240-54331-7
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/18/2015 1523			Analysis Date:	08/18/2015 1547
Prep Date:	08/15/2015 1020			Prep Date:	08/15/2015 1020
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acenaphthene	0.90	U	780	785	374	404
Acenaphthylene	0.42	U	780	785	373	410
Anthracene	0.93	U	780	785	401	455
Benzo[a]anthracene	0.75	U	780	785	415	466
Benzo[a]pyrene	0.76	U	780	785	424	489
Benzo[b]fluoranthene	0.70	U	780	785	435	484
Benzo[g,h,i]perylene	0.42	U	780	785	467	538
Benzo[k]fluoranthene	0.81	U	780	785	406	454
Chrysene	1.3	U	780	785	430	490
Dibenz(a,h)anthracene	0.79	U	780	785	491	556
Fluoranthene	0.65	U	780	785	394	455
Fluorene	0.63	U	780	785	379	414
Indeno[1,2,3-cd]pyrene	0.42	U	780	785	485	552
Naphthalene	0.98	U	780	785	353	352
Phenanthrene	0.87	U	780	785	393	449
Pyrene	0.52	U	780	785	413	464

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Duplicate - Batch: 240-193382

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54331-1	Analysis Batch:	240-193382	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/14/2015 1502	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	87	87	0.3	20	
Percent Moisture	13	13	2	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

Client: Tetra Tech, Inc. Job Number: 240-54331-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-193424					
LCS 240-193424/11-A	Lab Control Sample	T	Solid	3540C	
MB 240-193424/10-A	Method Blank	T	Solid	3540C	
240-54331-1	D-VS-E-1-1	T	Solid	3540C	
240-54331-2	D-VS-E-3-1	T	Solid	3540C	
240-54331-3	D-VS-E-4-1	T	Solid	3540C	
240-54331-4	D-VB-E-1-2	T	Solid	3540C	
240-54331-5	D-VB-E-2-2	T	Solid	3540C	
240-54331-6	D-VB-E-4-2	T	Solid	3540C	
240-54331-7	D-VB-E-5-2	T	Solid	3540C	
240-54331-7MS	Matrix Spike	T	Solid	3540C	
240-54331-7MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-193693					
LCS 240-193424/11-A	Lab Control Sample	T	Solid	8270D	240-193424
MB 240-193424/10-A	Method Blank	T	Solid	8270D	240-193424
240-54331-1	D-VS-E-1-1	T	Solid	8270D	240-193424
240-54331-2	D-VS-E-3-1	T	Solid	8270D	240-193424
240-54331-3	D-VS-E-4-1	T	Solid	8270D	240-193424
240-54331-4	D-VB-E-1-2	T	Solid	8270D	240-193424
240-54331-5	D-VB-E-2-2	T	Solid	8270D	240-193424
240-54331-6	D-VB-E-4-2	T	Solid	8270D	240-193424
240-54331-7	D-VB-E-5-2	T	Solid	8270D	240-193424
240-54331-7MS	Matrix Spike	T	Solid	8270D	240-193424
240-54331-7MSD	Matrix Spike Duplicate	T	Solid	8270D	240-193424

Report Basis
T = Total

General Chemistry

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Analysis Batch:240-193382					
240-54331-1	D-VS-E-1-1	T	Solid	Moisture	
240-54331-1DU	Duplicate	T	Solid	Moisture	
240-54331-2	D-VS-E-3-1	T	Solid	Moisture	
240-54331-3	D-VS-E-4-1	T	Solid	Moisture	
240-54331-4	D-VB-E-1-2	T	Solid	Moisture	
240-54331-5	D-VB-E-2-2	T	Solid	Moisture	
240-54331-6	D-VB-E-4-2	T	Solid	Moisture	
240-54331-7	D-VB-E-5-2	T	Solid	Moisture	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Laboratory Chronicle

Lab ID: 240-54331-1 **Client ID: D-VS-E-1-1**

Sample Date/Time: 08/13/2015 09:00 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-1-A		240-193693	240-193424	08/15/2015 10:20	2.5	TAL CAN	SDE
A:8270D	240-54331-B-1-A		240-193693	240-193424	08/18/2015 18:37	2.5	TAL CAN	JMG
A:Moisture	240-54331-A-1		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-1 DU **Client ID: D-VS-E-1-1**

Sample Date/Time: 08/13/2015 09:00 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54331-A-1 DU		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-2 **Client ID: D-VS-E-3-1**

Sample Date/Time: 08/13/2015 09:05 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-2-A		240-193693	240-193424	08/15/2015 10:20	4	TAL CAN	SDE
A:8270D	240-54331-B-2-A		240-193693	240-193424	08/18/2015 19:01	4	TAL CAN	JMG
A:Moisture	240-54331-A-2		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-3 **Client ID: D-VS-E-4-1**

Sample Date/Time: 08/13/2015 09:10 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-3-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	240-54331-B-3-A		240-193693	240-193424	08/18/2015 17:48	1	TAL CAN	JMG
A:Moisture	240-54331-A-3		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-4 **Client ID: D-VB-E-1-2**

Sample Date/Time: 08/13/2015 09:15 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-4-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	240-54331-B-4-A		240-193693	240-193424	08/18/2015 17:00	1	TAL CAN	JMG
A:Moisture	240-54331-A-4		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Laboratory Chronicle

Lab ID: 240-54331-5 **Client ID: D-VB-E-2-2**

Sample Date/Time: 08/13/2015 09:20 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-5-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	240-54331-B-5-A		240-193693	240-193424	08/18/2015 17:24	1	TAL CAN	JMG
A:Moisture	240-54331-A-5		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-6 **Client ID: D-VB-E-4-2**

Sample Date/Time: 08/13/2015 09:25 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-6-A		240-193693	240-193424	08/15/2015 10:20	2	TAL CAN	SDE
A:8270D	240-54331-B-6-A		240-193693	240-193424	08/18/2015 18:13	2	TAL CAN	JMG
A:Moisture	240-54331-A-6		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-7 **Client ID: D-VB-E-5-2**

Sample Date/Time: 08/13/2015 09:30 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-7-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	240-54331-B-7-A		240-193693	240-193424	08/18/2015 14:59	1	TAL CAN	JMG
A:Moisture	240-54331-A-7		240-193382		08/14/2015 15:02	1	TAL CAN	DTN

Lab ID: 240-54331-7 MS **Client ID: D-VB-E-5-2**

Sample Date/Time: 08/13/2015 09:30 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-7-B MS		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	240-54331-B-7-B MS		240-193693	240-193424	08/18/2015 15:23	1	TAL CAN	JMG

Lab ID: 240-54331-7 MSD **Client ID: D-VB-E-5-2**

Sample Date/Time: 08/13/2015 09:30 Received Date/Time: 08/14/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54331-B-7-C MSD		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	240-54331-B-7-C MSD		240-193693	240-193424	08/18/2015 15:47	1	TAL CAN	JMG

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Laboratory Chronicle

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	MB 240-193424/10-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	MB 240-193424/10-A		240-193693	240-193424	08/18/2015 14:34	1	TAL CAN	JMG

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	LCS 240-193424/11-A		240-193693	240-193424	08/15/2015 10:20	1	TAL CAN	SDE
A:8270D	LCS 240-193424/11-A		240-193693	240-193424	08/18/2015 13:46	1	TAL CAN	JMG

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00027	06/10/16	07/23/15	MEOH, Lot 0000085233	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00048	08/31/16	08/03/15	MEOH, Lot 147358	200 mL	EXLIST1_S1_00003	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.EXLIST1_S1_00003	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54331-1
Project/Site: MRC Soil Remedy Block D

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-E-1-1	240-54331-1	53	55	45	53	10	58
D-VS-E-3-1	240-54331-2	47	53	41	53	20	60
D-VS-E-4-1	240-54331-3	45	45	41	48	10	51
D-VB-E-1-2	240-54331-4	46	46	40	43	12	51
D-VB-E-2-2	240-54331-5	41	45	36	44	13	50
D-VB-E-4-2	240-54331-6	44	49	38	47	7 X	54
D-VB-E-5-2	240-54331-7	52	54	44	49	15	55
	MB 240-193424/10-A	45	50	42	47	11	50
	LCS 240-193424/11-A	67	69	60	63	22	67
D-VB-E-5-2 MS	240-54331-7 MS	49	53	43	48	25	55
D-VB-E-5-2 MSD	240-54331-7 MSD	49	51	40	49	26	59

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193424/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	412	62	38-110	
Acenaphthylene	667	420	63	40-110	
Anthracene	667	439	66	48-110	
Benzo[a]anthracene	667	432	65	50-110	
Benzo[a]pyrene	667	458	69	44-110	
Benzo[b]fluoranthene	667	446	67	43-110	
Benzo[g,h,i]perylene	667	491	74	51-110	
Benzo[k]fluoranthene	667	437	66	38-105	
Chrysene	667	466	70	50-110	
Dibenz(a,h)anthracene	667	517	78	51-110	
Fluoranthene	667	444	67	51-110	
Fluorene	667	401	60	46-110	
Indeno[1,2,3-cd]pyrene	667	526	79	50-110	
Naphthalene	667	421	63	36-110	
Phenanthrene	667	430	65	49-110	
Pyrene	667	428	64	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818007.D

Lab ID: 240-54331-7 MS Client ID: D-VB-E-5-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	780	0.90 U	374	48	22-110	
Acenaphthylene	780	0.42 U	373	48	24-110	
Anthracene	780	0.93 U	401	51	20-110	
Benzo[a]anthracene	780	0.75 U	415	53	10-122	
Benzo[a]pyrene	780	0.76 U	424	54	10-110	
Benzo[b]fluoranthene	780	0.70 U	435	56	12-118	
Benzo[g,h,i]perylene	780	0.42 U	467	60	10-117	
Benzo[k]fluoranthene	780	0.81 U	406	52	10-121	
Chrysene	780	1.3 U	430	55	10-125	
Dibenz(a,h)anthracene	780	0.79 U	491	63	14-113	
Fluoranthene	780	0.65 U	394	50	10-110	
Fluorene	780	0.63 U	379	49	23-110	
Indeno[1,2,3-cd]pyrene	780	0.42 U	485	62	10-114	
Naphthalene	780	0.98 U	353	45	10-111	
Phenanthrene	780	0.87 U	393	50	10-166	
Pyrene	780	0.52 U	413	53	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818008.D

Lab ID: 240-54331-7 MSD Client ID: D-VB-E-5-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	785	404	51	8	99	22-110	
Acenaphthylene	785	410	52	9	99	24-110	
Anthracene	785	455	58	13	99	20-110	
Benzo[a]anthracene	785	466	59	12	99	10-122	
Benzo[a]pyrene	785	489	62	14	99	10-110	
Benzo[b]fluoranthene	785	484	62	11	99	12-118	
Benzo[g,h,i]perylene	785	538	69	14	99	10-117	
Benzo[k]fluoranthene	785	454	58	11	99	10-121	
Chrysene	785	490	62	13	99	10-125	
Dibenz(a,h)anthracene	785	556	71	12	99	14-113	
Fluoranthene	785	455	58	15	99	10-110	
Fluorene	785	414	53	9	99	23-110	
Indeno[1,2,3-cd]pyrene	785	552	70	13	99	10-114	
Naphthalene	785	352	45	0	99	10-111	
Phenanthrene	785	449	57	13	99	10-166	
Pyrene	785	464	59	12	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50818017.D Lab Sample ID: MB 240-193424/10-A

Matrix: Solid Date Extracted: 08/15/2015 10:20

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 14:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193424/11-A	50818004.D	08/18/2015 13:46
D-VB-E-5-2	240-54331-7	50818006.D	08/18/2015 14:59
D-VB-E-5-2 MS	240-54331-7 MS	50818007.D	08/18/2015 15:23
D-VB-E-5-2 MSD	240-54331-7 MSD	50818008.D	08/18/2015 15:47
D-VB-E-1-2	240-54331-4	50818009.D	08/18/2015 17:00
D-VB-E-2-2	240-54331-5	50818010.D	08/18/2015 17:24
D-VS-E-4-1	240-54331-3	50818011.D	08/18/2015 17:48
D-VB-E-4-2	240-54331-6	50818012.D	08/18/2015 18:13
D-VS-E-1-1	240-54331-1	50818013.D	08/18/2015 18:37
D-VS-E-3-1	240-54331-2	50818014.D	08/18/2015 19:01

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	LCS 240-193424/11-A	50818004.D	08/18/2015	13:46
	MB 240-193424/10-A	50818017.D	08/18/2015	14:34
D-VB-E-5-2	240-54331-7	50818006.D	08/18/2015	14:59
D-VB-E-5-2 MS	240-54331-7 MS	50818007.D	08/18/2015	15:23
D-VB-E-5-2 MSD	240-54331-7 MSD	50818008.D	08/18/2015	15:47
D-VB-E-1-2	240-54331-4	50818009.D	08/18/2015	17:00
D-VB-E-2-2	240-54331-5	50818010.D	08/18/2015	17:24
D-VS-E-4-1	240-54331-3	50818011.D	08/18/2015	17:48
D-VB-E-4-2	240-54331-6	50818012.D	08/18/2015	18:13
D-VS-E-1-1	240-54331-1	50818013.D	08/18/2015	18:37
D-VS-E-3-1	240-54331-2	50818014.D	08/18/2015	19:01

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		218581	6.11	923296	7.23	508825	8.73
MB 240-193424/10-A		261862	6.11	1132843	7.23	617978	8.73
240-54331-7	D-VB-E-5-2	234558	6.11	1021038	7.23	565234	8.73
240-54331-7 MS	D-VB-E-5-2 MS	224841	6.11	1011830	7.23	550681	8.73
240-54331-7 MSD	D-VB-E-5-2 MSD	238933	6.11	1038896	7.23	558166	8.73
240-54331-4	D-VB-E-1-2	276771	6.11	1155224	7.23	637288	8.73
240-54331-5	D-VB-E-2-2	261789	6.11	1095290	7.23	598732	8.73
240-54331-3	D-VS-E-4-1	265827	6.11	1120088	7.23	607270	8.73
240-54331-6	D-VB-E-4-2	267233	6.11	1161979	7.23	641402	8.73
240-54331-1	D-VS-E-1-1	274817	6.11	1162834	7.23	639254	8.73
240-54331-2	D-VS-E-3-1	280142	6.11	1187877	7.23	650166	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		825964	9.99	868728	12.62	738287	14.77
MB 240-193424/10-A		1058567	9.99	1066056	12.62	885805	14.77
240-54331-7	D-VB-E-5-2	944387	9.99	938098	12.62	754063	14.77
240-54331-7 MS	D-VB-E-5-2 MS	902825	9.99	883687	12.62	756388	14.77
240-54331-7 MSD	D-VB-E-5-2 MSD	922634	9.99	919509	12.62	795149	14.77
240-54331-4	D-VB-E-1-2	1072455	9.99	1061598	12.62	861364	14.77
240-54331-5	D-VB-E-2-2	1009335	9.99	1013985	12.62	789631	14.77
240-54331-3	D-VS-E-4-1	1034196	9.99	1054920	12.62	890356	14.77
240-54331-6	D-VB-E-4-2	1051260	9.99	1056247	12.63	916355	14.78
240-54331-1	D-VS-E-1-1	1039036	9.99	1072722	12.63	929542	14.78
240-54331-2	D-VS-E-3-1	1074942	9.99	1095879	12.63	930906	14.78

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-1-1 | Lab Sample ID: 240-54331-1

Matrix: Solid | Lab File ID: 50818013.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:00

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.02(g) | Date Analyzed: 08/18/2015 18:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	140		19	2.2
208-96-8	Acenaphthylene	27		19	1.0
120-12-7	Anthracene	300		19	2.2
56-55-3	Benzo[a]anthracene	880		19	1.8
50-32-8	Benzo[a]pyrene	900		19	1.8
205-99-2	Benzo[b]fluoranthene	1300		19	1.7
191-24-2	Benzo[g,h,i]perylene	550		19	1.0
207-08-9	Benzo[k]fluoranthene	420		19	1.9
218-01-9	Chrysene	1000		19	3.2
53-70-3	Dibenz(a,h)anthracene	190		19	1.9
206-44-0	Fluoranthene	1800		19	1.6
86-73-7	Fluorene	130		19	1.5
193-39-5	Indeno[1,2,3-cd]pyrene	510		19	1.0
91-20-3	Naphthalene	66		19	2.3
85-01-8	Phenanthrene	1100		19	2.1
129-00-0	Pyrene	1600		19	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		36-110
4165-62-2	Phenol-d5 (Surr)	55		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		20-110
367-12-4	2-Fluorophenol (Surr)	53		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	10		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-3-1 | Lab Sample ID: 240-54331-2

Matrix: Solid | Lab File ID: 50818014.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:05

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.17(g) | Date Analyzed: 08/18/2015 19:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	130		30	3.4
208-96-8	Acenaphthylene	41		30	1.6
120-12-7	Anthracene	360		30	3.5
56-55-3	Benzo[a]anthracene	1700		30	2.8
50-32-8	Benzo[a]pyrene	2000		30	2.9
205-99-2	Benzo[b]fluoranthene	2400		30	2.7
191-24-2	Benzo[g,h,i]perylene	1100		30	1.6
207-08-9	Benzo[k]fluoranthene	1000		30	3.1
218-01-9	Chrysene	1900		30	5.0
53-70-3	Dibenz(a,h)anthracene	400		30	3.0
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	96		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	1000		30	1.6
91-20-3	Naphthalene	15	J	30	3.7
85-01-8	Phenanthrene	1200		30	3.3
129-00-0	Pyrene	2700		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	60		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	47		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	20		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-4-1 | Lab Sample ID: 240-54331-3

Matrix: Solid | Lab File ID: 50818011.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:10

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.66(g) | Date Analyzed: 08/18/2015 17:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.2	J	7.6	0.87
208-96-8	Acenaphthylene	9.9		7.6	0.40
120-12-7	Anthracene	22		7.6	0.89
56-55-3	Benzo[a]anthracene	140		7.6	0.72
50-32-8	Benzo[a]pyrene	180		7.6	0.73
205-99-2	Benzo[b]fluoranthene	230		7.6	0.68
191-24-2	Benzo[g,h,i]perylene	150		7.6	0.40
207-08-9	Benzo[k]fluoranthene	99		7.6	0.78
218-01-9	Chrysene	160		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	37		7.6	0.76
206-44-0	Fluoranthene	200		7.6	0.63
86-73-7	Fluorene	6.7	J	7.6	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	130		7.6	0.40
91-20-3	Naphthalene	7.7		7.6	0.94
85-01-8	Phenanthrene	100		7.6	0.84
129-00-0	Pyrene	210		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	45		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	10		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-1-2 | Lab Sample ID: 240-54331-4

Matrix: Solid | Lab File ID: 50818009.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:15

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 17:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.8	J	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	7.5	J	7.9	0.92
56-55-3	Benzo[a]anthracene	21		7.9	0.74
50-32-8	Benzo[a]pyrene	19		7.9	0.76
205-99-2	Benzo[b]fluoranthene	25		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	12		7.9	0.41
207-08-9	Benzo[k]fluoranthene	11		7.9	0.80
218-01-9	Chrysene	21		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	41		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	11		7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	29		7.9	0.86
129-00-0	Pyrene	35		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	46		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	46		24-110
321-60-8	2-Fluorobiphenyl (Surr)	43		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	12		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-2-2 | Lab Sample ID: 240-54331-5

Matrix: Solid | Lab File ID: 50818010.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:20

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.83(g) | Date Analyzed: 08/18/2015 17:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.92	U	7.8	0.92
56-55-3	Benzo[a]anthracene	5.1	J	7.8	0.74
50-32-8	Benzo[a]pyrene	5.4	J	7.8	0.75
205-99-2	Benzo[b]fluoranthene	8.0		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	4.9	J	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.80	U	7.8	0.80
218-01-9	Chrysene	6.9	J	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.8	0.78
206-44-0	Fluoranthene	8.6		7.8	0.65
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	5.3	J	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	6.0	J	7.8	0.86
129-00-0	Pyrene	7.6	J	7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	45		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	36		20-110
367-12-4	2-Fluorophenol (Surr)	41		24-110
321-60-8	2-Fluorobiphenyl (Surr)	44		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-4-2 | Lab Sample ID: 240-54331-6

Matrix: Solid | Lab File ID: 50818012.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:25

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.57(g) | Date Analyzed: 08/18/2015 18:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	120		16	1.8
208-96-8	Acenaphthylene	12	J	16	0.83
120-12-7	Anthracene	240		16	1.9
56-55-3	Benzo[a]anthracene	880		16	1.5
50-32-8	Benzo[a]pyrene	890		16	1.5
205-99-2	Benzo[b]fluoranthene	1200		16	1.4
191-24-2	Benzo[g,h,i]perylene	560		16	0.83
207-08-9	Benzo[k]fluoranthene	440		16	1.6
218-01-9	Chrysene	950		16	2.6
53-70-3	Dibenz(a,h)anthracene	190		16	1.6
206-44-0	Fluoranthene	1600		16	1.3
86-73-7	Fluorene	95		16	1.3
193-39-5	Indeno[1,2,3-cd]pyrene	500		16	0.83
91-20-3	Naphthalene	15	J	16	2.0
85-01-8	Phenanthrene	920		16	1.7
129-00-0	Pyrene	1400		16	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	54		36-110
4165-62-2	Phenol-d5 (Surr)	49		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	38		20-110
367-12-4	2-Fluorophenol (Surr)	44		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	7	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-5-2 | Lab Sample ID: 240-54331-7

Matrix: Solid | Lab File ID: 50818006.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.73(g) | Date Analyzed: 08/18/2015 14:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	0.65	U	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	0.52	U	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	54		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		20-110
367-12-4	2-Fluorophenol (Surr)	52		24-110
321-60-8	2-Fluorobiphenyl (Surr)	49		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193424/10-A

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 14:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	42		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-193424/11-A

Matrix: Solid | Lab File ID: 50818004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 13:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	412		6.7	0.76
208-96-8	Acenaphthylene	420		6.7	0.35
120-12-7	Anthracene	439		6.7	0.78
56-55-3	Benzo[a]anthracene	432		6.7	0.63
50-32-8	Benzo[a]pyrene	458		6.7	0.64
205-99-2	Benzo[b]fluoranthene	446		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	491		6.7	0.35
207-08-9	Benzo[k]fluoranthene	437		6.7	0.68
218-01-9	Chrysene	466		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	517		6.7	0.66
206-44-0	Fluoranthene	444		6.7	0.55
86-73-7	Fluorene	401		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	526		6.7	0.35
91-20-3	Naphthalene	421		6.7	0.82
85-01-8	Phenanthrene	430		6.7	0.73
129-00-0	Pyrene	428		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	67		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-5-2 MS | Lab Sample ID: 240-54331-7 MS

Matrix: Solid | Lab File ID: 50818007.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.24(g) | Date Analyzed: 08/18/2015 15:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	374		7.8	0.89
208-96-8	Acenaphthylene	373		7.8	0.41
120-12-7	Anthracene	401		7.8	0.91
56-55-3	Benzo[a]anthracene	415		7.8	0.74
50-32-8	Benzo[a]pyrene	424		7.8	0.75
205-99-2	Benzo[b]fluoranthene	435		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	467		7.8	0.41
207-08-9	Benzo[k]fluoranthene	406		7.8	0.80
218-01-9	Chrysene	430		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	491		7.8	0.77
206-44-0	Fluoranthene	394		7.8	0.64
86-73-7	Fluorene	379		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	485		7.8	0.41
91-20-3	Naphthalene	353		7.8	0.96
85-01-8	Phenanthrene	393		7.8	0.85
129-00-0	Pyrene	413		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	25		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-5-2 MSD | Lab Sample ID: 240-54331-7 MSD

Matrix: Solid | Lab File ID: 50818008.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 15:47

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	404		7.9	0.90
208-96-8	Acenaphthylene	410		7.9	0.41
120-12-7	Anthracene	455		7.9	0.92
56-55-3	Benzo[a]anthracene	466		7.9	0.74
50-32-8	Benzo[a]pyrene	489		7.9	0.75
205-99-2	Benzo[b]fluoranthene	484		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	538		7.9	0.41
207-08-9	Benzo[k]fluoranthene	454		7.9	0.80
218-01-9	Chrysene	490		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	556		7.9	0.78
206-44-0	Fluoranthene	455		7.9	0.65
86-73-7	Fluorene	414		7.9	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	552		7.9	0.41
91-20-3	Naphthalene	352		7.9	0.97
85-01-8	Phenanthrene	449		7.9	0.86
129-00-0	Pyrene	464		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	59		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	49		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	26		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: A4HP10 Start Date: 07/23/2015 08:38

Analysis Batch Number: 190307 End Date: 07/23/2015 20:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-190307/1		07/23/2015 08:38	1	50723001.D	DB-624 0.18(mm)
STD9 240-190307/2 IC		07/23/2015 09:02	1	50723002.D	DB-624 0.18(mm)
STD8 240-190307/3 IC		07/23/2015 09:26	1	50723003.D	DB-624 0.18(mm)
STD7 240-190307/4 IC		07/23/2015 09:50	1	50723004.D	DB-624 0.18(mm)
STD6 240-190307/5 ICIS		07/23/2015 10:14	1	50723005.D	DB-624 0.18(mm)
STD5 240-190307/6 IC		07/23/2015 10:39	1	50723006.D	DB-624 0.18(mm)
STD4 240-190307/7 IC		07/23/2015 11:03	1	50723007.D	DB-624 0.18(mm)
STD3 240-190307/8 IC		07/23/2015 11:27	1	50723008.D	DB-624 0.18(mm)
STD2 240-190307/9 IC		07/23/2015 11:51	1	50723009.D	DB-624 0.18(mm)
STD1 240-190307/10 IC		07/23/2015 12:15	1	50723010.D	DB-624 0.18(mm)
ICV 240-190307/11		07/23/2015 12:40	1	50723011.D	DB-624 0.18(mm)
STD9 240-190307/12 IC		07/23/2015 13:04	1		DB-624 0.18(mm)
STD8 240-190307/13 IC		07/23/2015 13:28	1		DB-624 0.18(mm)
STD7 240-190307/14 IC		07/23/2015 13:52	1		DB-624 0.18(mm)
STD6 240-190307/15 IC		07/23/2015 14:16	1		DB-624 0.18(mm)
STD5 240-190307/16 IC		07/23/2015 14:41	1		DB-624 0.18(mm)
STD4 240-190307/17 IC		07/23/2015 15:05	1		DB-624 0.18(mm)
STD3 240-190307/18 IC		07/23/2015 15:29	1		DB-624 0.18(mm)
STD2 240-190307/19 IC		07/23/2015 15:53	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 16:17	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 16:41	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:06	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:30	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:54	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 18:18	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 18:42	50		DB-624 0.18(mm)
ZZZZZ		07/23/2015 19:06	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 20:19	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: A4HP10 Start Date: 08/18/2015 12:28

Analysis Batch Number: 193693 End Date: 08/19/2015 00:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-193693/1		08/18/2015 12:28	1	50818001.D	DB-624 0.18(mm)
CCV 240-193693/2 CCVIS		08/18/2015 12:52	1	50818002.D	DB-624 0.18(mm)
LCS 240-193424/11-A		08/18/2015 13:46	1	50818004.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 14:10	1		DB-624 0.18(mm)
MB 240-193424/10-A		08/18/2015 14:34	1	50818017.D	DB-624 0.18(mm)
240-54331-7	D-VB-E-5-2	08/18/2015 14:59	1	50818006.D	DB-624 0.18(mm)
240-54331-7 MS	D-VB-E-5-2 MS	08/18/2015 15:23	1	50818007.D	DB-624 0.18(mm)
240-54331-7 MSD	D-VB-E-5-2 MSD	08/18/2015 15:47	1	50818008.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 16:11	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 16:36	1		DB-624 0.18(mm)
240-54331-4	D-VB-E-1-2	08/18/2015 17:00	1	50818009.D	DB-624 0.18(mm)
240-54331-5	D-VB-E-2-2	08/18/2015 17:24	1	50818010.D	DB-624 0.18(mm)
240-54331-3	D-VS-E-4-1	08/18/2015 17:48	1	50818011.D	DB-624 0.18(mm)
240-54331-6	D-VB-E-4-2	08/18/2015 18:13	2	50818012.D	DB-624 0.18(mm)
240-54331-1	D-VS-E-1-1	08/18/2015 18:37	2.5	50818013.D	DB-624 0.18(mm)
240-54331-2	D-VS-E-3-1	08/18/2015 19:01	4	50818014.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 19:49	6.667		DB-624 0.18(mm)
ZZZZZ		08/18/2015 20:14	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 20:38	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 21:02	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 21:26	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 21:50	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 22:14	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 22:38	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:02	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:26	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:50	1		DB-624 0.18(mm)
ZZZZZ		08/19/2015 00:14	1		DB-624 0.18(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Batch Number: 193424 Batch Start Date: 08/15/15 12:00 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/16/15 04:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00027	exBNASPIKE 00048	exBNASURR W 00026	
240-54331-B-1	D-VS-E-1-1	3540C, 8270D	T	30.02 g	2 mL			1 mL	
240-54331-B-2	D-VS-E-3-1	3540C, 8270D	T	30.17 g	2 mL			1 mL	
240-54331-B-3	D-VS-E-4-1	3540C, 8270D	T	29.66 g	2 mL			1 mL	
240-54331-B-4	D-VB-E-1-2	3540C, 8270D	T	30.03 g	2 mL			1 mL	
240-54331-B-5	D-VB-E-2-2	3540C, 8270D	T	29.83 g	2 mL			1 mL	
240-54331-B-6	D-VB-E-4-2	3540C, 8270D	T	29.57 g	2 mL			1 mL	
240-54331-B-7	D-VB-E-5-2	3540C, 8270D	T	29.73 g	2 mL			1 mL	
240-54331-B-7 MS	D-VB-E-5-2	3540C, 8270D	T	30.24 g	2 mL	1 mL	1 mL	1 mL	
240-54331-B-7 MSD	D-VB-E-5-2	3540C, 8270D	T	30.03 g	2 mL	1 mL	1 mL	1 mL	
MB 240-193424/10		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-193424/11		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54331-1

SDG No.:

Project: MRC Soil Remedy Block D

Client Sample ID	Lab Sample ID
D-VS-E-1-1	240-54331-1
D-VS-E-3-1	240-54331-2
D-VS-E-4-1	240-54331-3
D-VB-E-1-2	240-54331-4
D-VB-E-2-2	240-54331-5
D-VB-E-4-2	240-54331-6
D-VB-E-5-2	240-54331-7

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54331-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54331-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			15:02																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			15:02																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D/F	Type	Time	Analytes																			
				% Sol	Moist																		
240-54331-1 DU	1	T	15:02	X	X																		
240-54331-1	1	T	15:02	X	X																		
240-54331-2	1	T	15:02	X	X																		
240-54331-3	1	T	15:02	X	X																		
240-54331-4	1	T	15:02	X	X																		
240-54331-5	1	T	15:02	X	X																		
240-54331-6	1	T	15:02	X	X																		
240-54331-7	1	T	15:02	X	X																		
ZZZZZZ			15:02																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/14/2015 15:02 End Date: 08/14/2015 15:24

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			15:24																				
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Prep Types
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Batch Number: 193382 Batch Start Date: 08/14/15 15:02 Batch Analyst: Nguyen, Diem

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54331-A-1 DU	D-VS-E-1-1	Moisture	T	4.2475 g	13.0564 g	11.9044 g			
240-54331-A-1	D-VS-E-1-1	Moisture	T	4.2475 g	12.7874 g	11.6936 g			
240-54331-A-2	D-VS-E-3-1	Moisture	T	4.2475 g	15.5890 g	14.2664 g			
240-54331-A-3	D-VS-E-4-1	Moisture	T	4.2475 g	18.6925 g	17.0136 g			
240-54331-A-4	D-VB-E-1-2	Moisture	T	4.2475 g	17.0339 g	15.0643 g			
240-54331-A-5	D-VB-E-2-2	Moisture	T	4.2475 g	20.2239 g	17.9148 g			
240-54331-A-6	D-VB-E-4-2	Moisture	T	4.2475 g	20.8637 g	18.3847 g			
240-54331-A-7	D-VB-E-5-2	Moisture	T	4.2475 g	19.7717 g	17.4105 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	08/14/15
Oven Temp when samples are put in oven	103.1 Degrees C
Time samples were place in the oven	15:50
Date samples were removed from oven	8/17/15
Oven Temp when samples removed from oven	103.6 Degrees C
Time Samples were removed from oven	04:40
Oven ID	002
ID number of the thermometer	Tempguard Box C #6

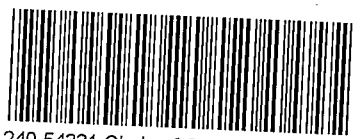
Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-54331 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

0.8/C1.8

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
117IC07483	MRC SOIL REMEDY Block D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAH (8270D)	REMARKS
MRC	8/13	0900	X		D-VS-E-1-1	1	X	☆ ALL SAMPLES GO TO
		0905	X		D-VS-E-3-1		X	TESTAMERICA. NORTH CANTON ☆
		0910	X		D-VS-E-4-1		X	☆ 3 DAY TAT ☆
		0915		X	D-VB-E-1-2		X	☆ P.M: SCOTT NESBIT ☆
		0920		X	D-VB-E-2-2		X	
		0925		X	D-VB-E-4-2		X	
		0930		X	D-VB-E-5-2		X	

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15 1630				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15 1700	8-14-15 920			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA E	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 41337**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 8-14-15 Opened on 8-14-15

FedEx: 1st Grd ~~ESP~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +**1.0** °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF **-1.5** °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-54373-1

Job Description: MRC Soil Remedy Block D

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit

Approved for release.
John McFadden
Project Manager I
8/20/2015 11:16 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/20/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54373-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/15/2015 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/17/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), and D-VB-F-18-2 (240-54373-6).

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693 associated with samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9). However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 190307

Lab Sample ID: STD9 240-190307/2 IC Client Sample ID:

Date Analyzed: 07/23/15 09:02 Lab File ID: 50723002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.60	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD8 240-190307/3 IC Client Sample ID:

Date Analyzed: 07/23/15 09:26 Lab File ID: 50723003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.59	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD7 240-190307/4 IC Client Sample ID:

Date Analyzed: 07/23/15 09:50 Lab File ID: 50723004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.59	Poor chromatography	hulat	07/23/15 10:45

Lab Sample ID: STD1 240-190307/10 IC Client Sample ID:

Date Analyzed: 07/23/15 12:15 Lab File ID: 50723010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene-d5 (Surr)	6.62	Poor chromatography	hulat	07/23/15 12:52
Dibenz(a,h)anthracene	16.60	Poor chromatography	hulat	07/23/15 12:48
Benzo[g,h,i]perylene	17.08	Poor chromatography	hulat	07/23/15 12:48

Lab Sample ID: ICV 240-190307/11 Client Sample ID:

Date Analyzed: 07/23/15 12:40 Lab File ID: 50723011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.58	Poor chromatography	hulat	07/23/15 13:03

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 193693

Lab Sample ID: CCV 240-193693/2 CCVIS Client Sample ID:

Date Analyzed: 08/18/15 12:52 Lab File ID: 50818002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.99	Poor chromatography	gruberj	08/18/15 13:10

Lab Sample ID: 240-54373-2 Client Sample ID: D-VB-F-11-2

Date Analyzed: 08/18/15 20:38 Lab File ID: 50818021.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	14.17	Poor chromatography	gruberj	08/19/15 10:58
Benzo[k]fluoranthene	14.21	Poor chromatography	gruberj	08/19/15 10:58

Lab Sample ID: 240-54373-3 Client Sample ID: D-VB-F-12-2

Date Analyzed: 08/18/15 21:02 Lab File ID: 50818022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.21	Poor chromatography	gruberj	08/19/15 10:59

Lab Sample ID: 240-54373-5 Client Sample ID: D-VB-F-17-2

Date Analyzed: 08/18/15 21:50 Lab File ID: 50818024.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.20	Poor chromatography	gruberj	08/19/15 11:01
Indeno[1,2,3-cd]pyrene	16.49	Poor chromatography	gruberj	08/19/15 11:01
Benzo[g,h,i]perylene	16.98	Poor chromatography	gruberj	08/19/15 11:01

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 193693

Lab Sample ID: 240-54373-6 Client Sample ID: D-VB-F-18-2

Date Analyzed: 08/18/15 22:14 Lab File ID: 50818025.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.20	Poor chromatography	gruberj	08/19/15 11:02

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54373-1	D-VB-F-6-2	Solid	08/14/2015 1140	08/15/2015 0940
240-54373-2	D-VB-F-11-2	Solid	08/14/2015 1142	08/15/2015 0940
240-54373-3	D-VB-F-12-2	Solid	08/14/2015 1144	08/15/2015 0940
240-54373-4	D-VB-F-16-2	Solid	08/14/2015 1146	08/15/2015 0940
240-54373-5	D-VB-F-17-2	Solid	08/14/2015 1148	08/15/2015 0940
240-54373-6	D-VB-F-18-2	Solid	08/14/2015 1150	08/15/2015 0940
240-54373-7	D-VB-F-21-3	Solid	08/14/2015 1152	08/15/2015 0940
240-54373-8	D-VB-F-22-2	Solid	08/14/2015 1154	08/15/2015 0940
240-54373-9	D-DUP04-081415	Solid	08/14/2015 0000	08/15/2015 0940

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54373-1	**D-VB-F-6-2**					
Percent Solids		83		0.10	%	Moisture
Percent Moisture		17		0.10	%	Moisture
240-54373-2	**D-VB-F-11-2**					
Benzo[a]anthracene		13		7.2	ug/Kg	8270D
Benzo[a]pyrene		15		7.2	ug/Kg	8270D
Benzo[b]fluoranthene		26		7.2	ug/Kg	8270D
Benzo[g,h,i]perylene		11		7.2	ug/Kg	8270D
Benzo[k]fluoranthene		6.2	J	7.2	ug/Kg	8270D
Chrysene		20		7.2	ug/Kg	8270D
Fluoranthene		22		7.2	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		10		7.2	ug/Kg	8270D
Naphthalene		4.4	J	7.2	ug/Kg	8270D
Phenanthrene		11		7.2	ug/Kg	8270D
Pyrene		24		7.2	ug/Kg	8270D
Percent Solids		92		0.10	%	Moisture
Percent Moisture		7.9		0.10	%	Moisture
240-54373-3	**D-VB-F-12-2**					
Acenaphthene		59		7.3	ug/Kg	8270D
Acenaphthylene		7.2	J	7.3	ug/Kg	8270D
Anthracene		90		7.3	ug/Kg	8270D
Benzo[a]anthracene		210		7.3	ug/Kg	8270D
Benzo[a]pyrene		210		7.3	ug/Kg	8270D
Benzo[b]fluoranthene		280		7.3	ug/Kg	8270D
Benzo[g,h,i]perylene		92		7.3	ug/Kg	8270D
Benzo[k]fluoranthene		110		7.3	ug/Kg	8270D
Chrysene		230		7.3	ug/Kg	8270D
Dibenz(a,h)anthracene		34		7.3	ug/Kg	8270D
Fluoranthene		440		7.3	ug/Kg	8270D
Fluorene		37		7.3	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		100		7.3	ug/Kg	8270D
Naphthalene		17		7.3	ug/Kg	8270D
Phenanthrene		330		7.3	ug/Kg	8270D
Pyrene		370		7.3	ug/Kg	8270D
Percent Solids		91		0.10	%	Moisture
Percent Moisture		9.3		0.10	%	Moisture
240-54373-4	**D-VB-F-16-2**					
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54373-5	**D-VB-F-17-2**					
Benzo[a]anthracene		16		7.7	ug/Kg	8270D
Benzo[a]pyrene		13		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		21		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		6.6	J	7.7	ug/Kg	8270D
Benzo[k]fluoranthene		8.9		7.7	ug/Kg	8270D
Chrysene		18		7.7	ug/Kg	8270D
Fluoranthene		36		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		6.6	J	7.7	ug/Kg	8270D
Phenanthrene		14		7.7	ug/Kg	8270D
Pyrene		30		7.7	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54373-6	**D-VB-F-18-2**					
Acenaphthene		6.8	J	8.2	ug/Kg	8270D
Anthracene		20		8.2	ug/Kg	8270D
Benzo[a]anthracene		110		8.2	ug/Kg	8270D
Benzo[a]pyrene		88		8.2	ug/Kg	8270D
Benzo[b]fluoranthene		130		8.2	ug/Kg	8270D
Benzo[g,h,i]perylene		52		8.2	ug/Kg	8270D
Benzo[k]fluoranthene		59		8.2	ug/Kg	8270D
Chrysene		120		8.2	ug/Kg	8270D
Dibenz(a,h)anthracene		16		8.2	ug/Kg	8270D
Fluoranthene		260		8.2	ug/Kg	8270D
Fluorene		6.3	J	8.2	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		46		8.2	ug/Kg	8270D
Naphthalene		5.8	J	8.2	ug/Kg	8270D
Phenanthrene		120		8.2	ug/Kg	8270D
Pyrene		210		8.2	ug/Kg	8270D
Percent Solids		81		0.10	%	Moisture
Percent Moisture		19		0.10	%	Moisture
240-54373-7	**D-VB-F-21-3**					
Percent Solids		81		0.10	%	Moisture
Percent Moisture		19		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54373-8	**D-VB-F-22-2**					
Acenaphthylene		9.6		8.0	ug/Kg	8270D
Anthracene		44		8.0	ug/Kg	8270D
Benzo[a]anthracene		170		8.0	ug/Kg	8270D
Benzo[a]pyrene		250		8.0	ug/Kg	8270D
Benzo[b]fluoranthene		300		8.0	ug/Kg	8270D
Benzo[g,h,i]perylene		110		8.0	ug/Kg	8270D
Benzo[k]fluoranthene		140		8.0	ug/Kg	8270D
Chrysene		340		8.0	ug/Kg	8270D
Dibenz(a,h)anthracene		32		8.0	ug/Kg	8270D
Fluoranthene		160		8.0	ug/Kg	8270D
Fluorene		5.2	J	8.0	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		100		8.0	ug/Kg	8270D
Naphthalene		16		8.0	ug/Kg	8270D
Phenanthrene		45		8.0	ug/Kg	8270D
Pyrene		160		8.0	ug/Kg	8270D
Percent Solids		83		0.10	%	Moisture
Percent Moisture		17		0.10	%	Moisture
240-54373-9	**D-DUP04-081415**					
Benzo[a]anthracene		9.6		8.2	ug/Kg	8270D
Benzo[a]pyrene		7.0	J	8.2	ug/Kg	8270D
Benzo[b]fluoranthene		12		8.2	ug/Kg	8270D
Benzo[k]fluoranthene		4.3	J	8.2	ug/Kg	8270D
Chrysene		8.0	J	8.2	ug/Kg	8270D
Fluoranthene		21		8.2	ug/Kg	8270D
Phenanthrene		5.8	J	8.2	ug/Kg	8270D
Pyrene		18		8.2	ug/Kg	8270D
Percent Solids		82		0.10	%	Moisture
Percent Moisture		18		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Method	Analyst	Analyst ID
SW846 8270D	Gruber, John	JMG
EPA Moisture	Nolle, Laura C	LCN

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: D-VB-F-6-2

Lab Sample ID: 240-54373-1 Date Sampled: 08/14/2015 1140
Client Matrix: Solid % Moisture: 16.9 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818020.D
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Analysis Date:	08/18/2015 2014			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.91	U	0.91	8.0
Acenaphthylene		0.42	U	0.42	8.0
Anthracene		0.94	U	0.94	8.0
Benzo[a]anthracene		0.76	U	0.76	8.0
Benzo[a]pyrene		0.77	U	0.77	8.0
Benzo[b]fluoranthene		0.71	U	0.71	8.0
Benzo[g,h,i]perylene		0.42	U	0.42	8.0
Benzo[k]fluoranthene		0.82	U	0.82	8.0
Chrysene		1.3	U	1.3	8.0
Dibenz(a,h)anthracene		0.79	U	0.79	8.0
Fluoranthene		0.66	U	0.66	8.0
Fluorene		0.64	U	0.64	8.0
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	8.0
Naphthalene		0.99	U	0.99	8.0
Phenanthrene		0.88	U	0.88	8.0
Pyrene		0.53	U	0.53	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	50		36 - 110
Phenol-d5 (Surr)	49		26 - 110
Nitrobenzene-d5 (Surr)	40		20 - 110
2-Fluorophenol (Surr)	47		24 - 110
2-Fluorobiphenyl (Surr)	47		24 - 110
2,4,6-Tribromophenol (Surr)	13		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: **D-VB-F-11-2**

Lab Sample ID: 240-54373-2 Date Sampled: 08/14/2015 1142
Client Matrix: Solid % Moisture: 7.9 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818021.D
Dilution:	1.0			Initial Weight/Volume:	30.28 g
Analysis Date:	08/18/2015 2038			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.82	U	0.82	7.2
Acenaphthylene		0.38	U	0.38	7.2
Anthracene		0.84	U	0.84	7.2
Benzo[a]anthracene		13		0.68	7.2
Benzo[a]pyrene		15		0.69	7.2
Benzo[b]fluoranthene		26		0.63	7.2
Benzo[g,h,i]perylene		11		0.38	7.2
Benzo[k]fluoranthene		6.2	J	0.73	7.2
Chrysene		20		1.2	7.2
Dibenz(a,h)anthracene		0.71	U	0.71	7.2
Fluoranthene		22		0.59	7.2
Fluorene		0.57	U	0.57	7.2
Indeno[1,2,3-cd]pyrene		10		0.38	7.2
Naphthalene		4.4	J	0.88	7.2
Phenanthrene		11		0.79	7.2
Pyrene		24		0.47	7.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	49		36 - 110
Phenol-d5 (Surr)	50		26 - 110
Nitrobenzene-d5 (Surr)	41		20 - 110
2-Fluorophenol (Surr)	48		24 - 110
2-Fluorobiphenyl (Surr)	47		24 - 110
2,4,6-Tribromophenol (Surr)	5	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: **D-VB-F-12-2**

Lab Sample ID: 240-54373-3 Date Sampled: 08/14/2015 1144
Client Matrix: Solid % Moisture: 9.3 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818022.D
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Analysis Date:	08/18/2015 2102			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		59		0.83	7.3
Acenaphthylene		7.2	J	0.38	7.3
Anthracene		90		0.85	7.3
Benzo[a]anthracene		210		0.69	7.3
Benzo[a]pyrene		210		0.70	7.3
Benzo[b]fluoranthene		280		0.65	7.3
Benzo[g,h,i]perylene		92		0.38	7.3
Benzo[k]fluoranthene		110		0.74	7.3
Chrysene		230		1.2	7.3
Dibenz(a,h)anthracene		34		0.72	7.3
Fluoranthene		440		0.60	7.3
Fluorene		37		0.58	7.3
Indeno[1,2,3-cd]pyrene		100		0.38	7.3
Naphthalene		17		0.90	7.3
Phenanthrene		330		0.80	7.3
Pyrene		370		0.48	7.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	43		36 - 110
Phenol-d5 (Surr)	43		26 - 110
Nitrobenzene-d5 (Surr)	34		20 - 110
2-Fluorophenol (Surr)	41		24 - 110
2-Fluorobiphenyl (Surr)	43		24 - 110
2,4,6-Tribromophenol (Surr)	4	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: D-VB-F-16-2

Lab Sample ID: 240-54373-4 Date Sampled: 08/14/2015 1146
Client Matrix: Solid % Moisture: 12.5 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818023.D
Dilution:	1.0			Initial Weight/Volume:	30.27 g
Analysis Date:	08/18/2015 2126			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.86	U	0.86	7.6
Acenaphthylene		0.40	U	0.40	7.6
Anthracene		0.88	U	0.88	7.6
Benzo[a]anthracene		0.71	U	0.71	7.6
Benzo[a]pyrene		0.72	U	0.72	7.6
Benzo[b]fluoranthene		0.67	U	0.67	7.6
Benzo[g,h,i]perylene		0.40	U	0.40	7.6
Benzo[k]fluoranthene		0.77	U	0.77	7.6
Chrysene		1.2	U	1.2	7.6
Dibenz(a,h)anthracene		0.75	U	0.75	7.6
Fluoranthene		0.62	U	0.62	7.6
Fluorene		0.60	U	0.60	7.6
Indeno[1,2,3-cd]pyrene		0.40	U	0.40	7.6
Naphthalene		0.93	U	0.93	7.6
Phenanthrene		0.83	U	0.83	7.6
Pyrene		0.50	U	0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	52		36 - 110
Phenol-d5 (Surr)	50		26 - 110
Nitrobenzene-d5 (Surr)	43		20 - 110
2-Fluorophenol (Surr)	49		24 - 110
2-Fluorobiphenyl (Surr)	48		24 - 110
2,4,6-Tribromophenol (Surr)	8	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: D-VB-F-17-2

Lab Sample ID: 240-54373-5 Date Sampled: 08/14/2015 1148
Client Matrix: Solid % Moisture: 13.8 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818024.D
Dilution:	1.0			Initial Weight/Volume:	30.02 g
Analysis Date:	08/18/2015 2150			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.88	U	0.88	7.7
Acenaphthylene		0.41	U	0.41	7.7
Anthracene		0.90	U	0.90	7.7
Benzo[a]anthracene		16		0.73	7.7
Benzo[a]pyrene		13		0.74	7.7
Benzo[b]fluoranthene		21		0.68	7.7
Benzo[g,h,i]perylene		6.6	J	0.41	7.7
Benzo[k]fluoranthene		8.9		0.79	7.7
Chrysene		18		1.3	7.7
Dibenz(a,h)anthracene		0.77	U	0.77	7.7
Fluoranthene		36		0.64	7.7
Fluorene		0.61	U	0.61	7.7
Indeno[1,2,3-cd]pyrene		6.6	J	0.41	7.7
Naphthalene		0.95	U	0.95	7.7
Phenanthrene		14		0.85	7.7
Pyrene		30		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	55		36 - 110
Phenol-d5 (Surr)	51		26 - 110
Nitrobenzene-d5 (Surr)	45		20 - 110
2-Fluorophenol (Surr)	53		24 - 110
2-Fluorobiphenyl (Surr)	51		24 - 110
2,4,6-Tribromophenol (Surr)	9	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: D-VB-F-18-2

Lab Sample ID: 240-54373-6 Date Sampled: 08/14/2015 1150
Client Matrix: Solid % Moisture: 19.2 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818025.D
Dilution:	1.0			Initial Weight/Volume:	30.24 g
Analysis Date:	08/18/2015 2214			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		6.8	J	0.93	8.2
Acenaphthylene		0.43	U	0.43	8.2
Anthracene		20		0.96	8.2
Benzo[a]anthracene		110		0.77	8.2
Benzo[a]pyrene		88		0.79	8.2
Benzo[b]fluoranthene		130		0.72	8.2
Benzo[g,h,i]perylene		52		0.43	8.2
Benzo[k]fluoranthene		59		0.83	8.2
Chrysene		120		1.4	8.2
Dibenz(a,h)anthracene		16		0.81	8.2
Fluoranthene		260		0.68	8.2
Fluorene		6.3	J	0.65	8.2
Indeno[1,2,3-cd]pyrene		46		0.43	8.2
Naphthalene		5.8	J	1.0	8.2
Phenanthrene		120		0.90	8.2
Pyrene		210		0.54	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	55		36 - 110
Phenol-d5 (Surr)	57		26 - 110
Nitrobenzene-d5 (Surr)	47		20 - 110
2-Fluorophenol (Surr)	56		24 - 110
2-Fluorobiphenyl (Surr)	54		24 - 110
2,4,6-Tribromophenol (Surr)	8	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: **D-VB-F-21-3**

Lab Sample ID: 240-54373-7 Date Sampled: 08/14/2015 1152
Client Matrix: Solid % Moisture: 18.9 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818026.D
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Analysis Date:	08/18/2015 2238			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.93	U	0.93	8.2
Acenaphthylene		0.43	U	0.43	8.2
Anthracene		0.96	U	0.96	8.2
Benzo[a]anthracene		0.77	U	0.77	8.2
Benzo[a]pyrene		0.78	U	0.78	8.2
Benzo[b]fluoranthene		0.72	U	0.72	8.2
Benzo[g,h,i]perylene		0.43	U	0.43	8.2
Benzo[k]fluoranthene		0.83	U	0.83	8.2
Chrysene		1.3	U	1.3	8.2
Dibenz(a,h)anthracene		0.81	U	0.81	8.2
Fluoranthene		0.67	U	0.67	8.2
Fluorene		0.65	U	0.65	8.2
Indeno[1,2,3-cd]pyrene		0.43	U	0.43	8.2
Naphthalene		1.0	U	1.0	8.2
Phenanthrene		0.89	U	0.89	8.2
Pyrene		0.54	U	0.54	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	48		36 - 110
Phenol-d5 (Surr)	47		26 - 110
Nitrobenzene-d5 (Surr)	40		20 - 110
2-Fluorophenol (Surr)	49		24 - 110
2-Fluorobiphenyl (Surr)	45		24 - 110
2,4,6-Tribromophenol (Surr)	11		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: D-VB-F-22-2

Lab Sample ID: 240-54373-8 Date Sampled: 08/14/2015 1154
Client Matrix: Solid % Moisture: 17.2 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818027.D
Dilution:	1.0			Initial Weight/Volume:	30.25 g
Analysis Date:	08/18/2015 2302			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.91	U	0.91	8.0
Acenaphthylene		9.6		0.42	8.0
Anthracene		44		0.93	8.0
Benzo[a]anthracene		170		0.75	8.0
Benzo[a]pyrene		250		0.77	8.0
Benzo[b]fluoranthene		300		0.71	8.0
Benzo[g,h,i]perylene		110		0.42	8.0
Benzo[k]fluoranthene		140		0.81	8.0
Chrysene		340		1.3	8.0
Dibenz(a,h)anthracene		32		0.79	8.0
Fluoranthene		160		0.66	8.0
Fluorene		5.2	J	0.63	8.0
Indeno[1,2,3-cd]pyrene		100		0.42	8.0
Naphthalene		16		0.98	8.0
Phenanthrene		45		0.87	8.0
Pyrene		160		0.53	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	51		36 - 110
Phenol-d5 (Surr)	51		26 - 110
Nitrobenzene-d5 (Surr)	43		20 - 110
2-Fluorophenol (Surr)	51		24 - 110
2-Fluorobiphenyl (Surr)	48		24 - 110
2,4,6-Tribromophenol (Surr)	18		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Client Sample ID: D-DUP04-081415

Lab Sample ID: 240-54373-9 Date Sampled: 08/14/2015 0000
Client Matrix: Solid % Moisture: 18.5 Date Received: 08/15/2015 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-193501	Lab File ID:	50818028.D
Dilution:	1.0			Initial Weight/Volume:	29.79 g
Analysis Date:	08/18/2015 2326			Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.94	U	0.94	8.2
Acenaphthylene		0.43	U	0.43	8.2
Anthracene		0.96	U	0.96	8.2
Benzo[a]anthracene		9.6		0.78	8.2
Benzo[a]pyrene		7.0	J	0.79	8.2
Benzo[b]fluoranthene		12		0.73	8.2
Benzo[g,h,i]perylene		0.43	U	0.43	8.2
Benzo[k]fluoranthene		4.3	J	0.84	8.2
Chrysene		8.0	J	1.4	8.2
Dibenz(a,h)anthracene		0.82	U	0.82	8.2
Fluoranthene		21		0.68	8.2
Fluorene		0.65	U	0.65	8.2
Indeno[1,2,3-cd]pyrene		0.43	U	0.43	8.2
Naphthalene		1.0	U	1.0	8.2
Phenanthrene		5.8	J	0.90	8.2
Pyrene		18		0.54	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	58		36 - 110
Phenol-d5 (Surr)	60		26 - 110
Nitrobenzene-d5 (Surr)	49		20 - 110
2-Fluorophenol (Surr)	59		24 - 110
2-Fluorobiphenyl (Surr)	55		24 - 110
2,4,6-Tribromophenol (Surr)	15		10 - 110

General Chemistry

Client Sample ID: **D-VB-F-6-2**

Lab Sample ID: 240-54373-1 Date Sampled: 08/14/2015 1140
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-11-2**

Lab Sample ID: 240-54373-2 Date Sampled: 08/14/2015 1142
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	92		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	7.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-12-2**

Lab Sample ID: 240-54373-3 Date Sampled: 08/14/2015 1144
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	91		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	9.3		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-16-2**

Lab Sample ID: 240-54373-4 Date Sampled: 08/14/2015 1146
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-17-2**

Lab Sample ID: 240-54373-5 Date Sampled: 08/14/2015 1148
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-18-2**

Lab Sample ID: 240-54373-6 Date Sampled: 08/14/2015 1150
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-21-3**

Lab Sample ID: 240-54373-7 Date Sampled: 08/14/2015 1152
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-22-2**

Lab Sample ID: 240-54373-8 Date Sampled: 08/14/2015 1154
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP04-081415**

Lab Sample ID: 240-54373-9 Date Sampled: 08/14/2015 0000
Client Matrix: Solid Date Received: 08/15/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-193596	Analysis Date: 08/17/2015 1333						DryWt Corrected: N

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54373-1	D-VB-F-6-2	47	49	40	47	13	50
240-54373-2	D-VB-F-11-2	48	50	41	47	5X	49
240-54373-3	D-VB-F-12-2	41	43	34	43	4X	43
240-54373-4	D-VB-F-16-2	49	50	43	48	8X	52
240-54373-5	D-VB-F-17-2	53	51	45	51	9X	55
240-54373-6	D-VB-F-18-2	56	57	47	54	8X	55
240-54373-7	D-VB-F-21-3	49	47	40	45	11	48
240-54373-8	D-VB-F-22-2	51	51	43	48	18	51
240-54373-9	D-DUP04-081415	59	60	49	55	15	58
MB 240-193501/23-A		63	67	55	58	13	62
LCS 240-193501/24-A		60	62	50	56	19	61

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Method Blank - Batch: 240-193501

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-193501/23-A	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193501	Lab File ID:	50818018.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 1611	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	62	36 - 110
Phenol-d5 (Surr)	67	26 - 110
Nitrobenzene-d5 (Surr)	55	20 - 110
2-Fluorophenol (Surr)	63	24 - 110
2-Fluorobiphenyl (Surr)	58	24 - 110
2,4,6-Tribromophenol (Surr)	13	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Control Sample - Batch: 240-193501

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-193501/24-A	Analysis Batch:	240-193693	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-193501	Lab File ID:	50818019.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/18/2015 1636	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/17/2015 0704			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	358	54	38 - 110	
Acenaphthylene	667	367	55	40 - 110	
Anthracene	667	379	57	48 - 110	
Benzo[a]anthracene	667	389	58	50 - 110	
Benzo[a]pyrene	667	404	61	44 - 110	
Benzo[b]fluoranthene	667	402	60	43 - 110	
Benzo[g,h,i]perylene	667	430	64	51 - 110	
Benzo[k]fluoranthene	667	379	57	38 - 105	
Chrysene	667	401	60	50 - 110	
Dibenz(a,h)anthracene	667	458	69	51 - 110	
Fluoranthene	667	381	57	51 - 110	
Fluorene	667	356	53	46 - 110	
Indeno[1,2,3-cd]pyrene	667	455	68	50 - 110	
Naphthalene	667	357	54	36 - 110	
Phenanthrene	667	371	56	49 - 110	
Pyrene	667	389	58	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	61	36 - 110
Phenol-d5 (Surr)	62	26 - 110
Nitrobenzene-d5 (Surr)	50	20 - 110
2-Fluorophenol (Surr)	60	24 - 110
2-Fluorobiphenyl (Surr)	56	24 - 110
2,4,6-Tribromophenol (Surr)	19	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Duplicate - Batch: 240-193596

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54373-2	Analysis Batch:	240-193596	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/17/2015 1333	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	92	91	1	20	
Percent Moisture	7.9	9.0	13	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

Client: Tetra Tech, Inc. Job Number: 240-54373-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-193501					
LCS 240-193501/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-193501/23-A	Method Blank	T	Solid	3540C	
240-54373-1	D-VB-F-6-2	T	Solid	3540C	
240-54373-2	D-VB-F-11-2	T	Solid	3540C	
240-54373-3	D-VB-F-12-2	T	Solid	3540C	
240-54373-4	D-VB-F-16-2	T	Solid	3540C	
240-54373-5	D-VB-F-17-2	T	Solid	3540C	
240-54373-6	D-VB-F-18-2	T	Solid	3540C	
240-54373-7	D-VB-F-21-3	T	Solid	3540C	
240-54373-8	D-VB-F-22-2	T	Solid	3540C	
240-54373-9	D-DUP04-081415	T	Solid	3540C	
Analysis Batch:240-193693					
LCS 240-193501/24-A	Lab Control Sample	T	Solid	8270D	240-193501
MB 240-193501/23-A	Method Blank	T	Solid	8270D	240-193501
240-54373-1	D-VB-F-6-2	T	Solid	8270D	240-193501
240-54373-2	D-VB-F-11-2	T	Solid	8270D	240-193501
240-54373-3	D-VB-F-12-2	T	Solid	8270D	240-193501
240-54373-4	D-VB-F-16-2	T	Solid	8270D	240-193501
240-54373-5	D-VB-F-17-2	T	Solid	8270D	240-193501
240-54373-6	D-VB-F-18-2	T	Solid	8270D	240-193501
240-54373-7	D-VB-F-21-3	T	Solid	8270D	240-193501
240-54373-8	D-VB-F-22-2	T	Solid	8270D	240-193501
240-54373-9	D-DUP04-081415	T	Solid	8270D	240-193501

Report Basis
T = Total

General Chemistry

Analysis Batch:240-193596					
240-54373-1	D-VB-F-6-2	T	Solid	Moisture	
240-54373-2	D-VB-F-11-2	T	Solid	Moisture	
240-54373-2DU	Duplicate	T	Solid	Moisture	
240-54373-3	D-VB-F-12-2	T	Solid	Moisture	
240-54373-4	D-VB-F-16-2	T	Solid	Moisture	
240-54373-5	D-VB-F-17-2	T	Solid	Moisture	
240-54373-6	D-VB-F-18-2	T	Solid	Moisture	
240-54373-7	D-VB-F-21-3	T	Solid	Moisture	
240-54373-8	D-VB-F-22-2	T	Solid	Moisture	
240-54373-9	D-DUP04-081415	T	Solid	Moisture	

Report Basis
T = Total

TestAmerica Canton

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Laboratory Chronicle

Lab ID: 240-54373-1 **Client ID: D-VB-F-6-2**

Sample Date/Time: 08/14/2015 11:40 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-1-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-1-A		240-193693	240-193501	08/18/2015 20:14	1	TAL CAN	JMG
A:Moisture	240-54373-A-1		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-2 **Client ID: D-VB-F-11-2**

Sample Date/Time: 08/14/2015 11:42 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-2-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-2-A		240-193693	240-193501	08/18/2015 20:38	1	TAL CAN	JMG
A:Moisture	240-54373-A-2		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-2 DU **Client ID: D-VB-F-11-2**

Sample Date/Time: 08/14/2015 11:42 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54373-A-2 DU		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-3 **Client ID: D-VB-F-12-2**

Sample Date/Time: 08/14/2015 11:44 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-3-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-3-A		240-193693	240-193501	08/18/2015 21:02	1	TAL CAN	JMG
A:Moisture	240-54373-A-3		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-4 **Client ID: D-VB-F-16-2**

Sample Date/Time: 08/14/2015 11:46 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-4-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-4-A		240-193693	240-193501	08/18/2015 21:26	1	TAL CAN	JMG
A:Moisture	240-54373-A-4		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Laboratory Chronicle

Lab ID: 240-54373-5 **Client ID: D-VB-F-17-2**

Sample Date/Time: 08/14/2015 11:48 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-5-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-5-A		240-193693	240-193501	08/18/2015 21:50	1	TAL CAN	JMG
A:Moisture	240-54373-A-5		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-6 **Client ID: D-VB-F-18-2**

Sample Date/Time: 08/14/2015 11:50 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-6-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-6-A		240-193693	240-193501	08/18/2015 22:14	1	TAL CAN	JMG
A:Moisture	240-54373-A-6		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-7 **Client ID: D-VB-F-21-3**

Sample Date/Time: 08/14/2015 11:52 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-7-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-7-A		240-193693	240-193501	08/18/2015 22:38	1	TAL CAN	JMG
A:Moisture	240-54373-A-7		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-8 **Client ID: D-VB-F-22-2**

Sample Date/Time: 08/14/2015 11:54 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-8-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-8-A		240-193693	240-193501	08/18/2015 23:02	1	TAL CAN	JMG
A:Moisture	240-54373-A-8		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Lab ID: 240-54373-9 **Client ID: D-DUP04-081415**

Sample Date/Time: 08/14/2015 00:00 Received Date/Time: 08/15/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54373-B-9-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	240-54373-B-9-A		240-193693	240-193501	08/18/2015 23:26	1	TAL CAN	JMG
A:Moisture	240-54373-A-9		240-193596		08/17/2015 13:33	1	TAL CAN	LCN

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Laboratory Chronicle

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	MB 240-193501/23-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	MB 240-193501/23-A		240-193693	240-193501	08/18/2015 16:11	1	TAL CAN	JMG

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	LCS 240-193501/24-A		240-193693	240-193501	08/17/2015 07:04	1	TAL CAN	SDE
A:8270D	LCS 240-193501/24-A		240-193693	240-193501	08/18/2015 16:36	1	TAL CAN	JMG

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00027	06/10/16	07/23/15	MEOH, Lot 0000085233	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00048	08/31/16	08/03/15	MEOH, Lot 147358	200 mL	EXLIST1_S1_00003	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.EXLIST1_S1_00003	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54373-1
Project/Site: MRC Soil Remedy Block D

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	T104704517-14-3
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VB-F-6-2	240-54373-1	47	49	40	47	13	50
D-VB-F-11-2	240-54373-2	48	50	41	47	5 X	49
D-VB-F-12-2	240-54373-3	41	43	34	43	4 X	43
D-VB-F-16-2	240-54373-4	49	50	43	48	8 X	52
D-VB-F-17-2	240-54373-5	53	51	45	51	9 X	55
D-VB-F-18-2	240-54373-6	56	57	47	54	8 X	55
D-VB-F-21-3	240-54373-7	49	47	40	45	11	48
D-VB-F-22-2	240-54373-8	51	51	43	48	18	51
D-DUP04-081415	240-54373-9	59	60	49	55	15	58
	MB 240-193501/23-A	63	67	55	58	13	62
	LCS 240-193501/24-A	60	62	50	56	19	61

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818019.D

Lab ID: LCS 240-193501/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	358	54	38-110	
Acenaphthylene	667	367	55	40-110	
Anthracene	667	379	57	48-110	
Benzo[a]anthracene	667	389	58	50-110	
Benzo[a]pyrene	667	404	61	44-110	
Benzo[b]fluoranthene	667	402	60	43-110	
Benzo[g,h,i]perylene	667	430	64	51-110	
Benzo[k]fluoranthene	667	379	57	38-105	
Chrysene	667	401	60	50-110	
Dibenz(a,h)anthracene	667	458	69	51-110	
Fluoranthene	667	381	57	51-110	
Fluorene	667	356	53	46-110	
Indeno[1,2,3-cd]pyrene	667	455	68	50-110	
Naphthalene	667	357	54	36-110	
Phenanthrene	667	371	56	49-110	
Pyrene	667	389	58	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50818018.D Lab Sample ID: MB 240-193501/23-A

Matrix: Solid Date Extracted: 08/17/2015 07:04

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 16:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193501/24-A	50818019.D	08/18/2015 16:36
D-VB-F-6-2	240-54373-1	50818020.D	08/18/2015 20:14
D-VB-F-11-2	240-54373-2	50818021.D	08/18/2015 20:38
D-VB-F-12-2	240-54373-3	50818022.D	08/18/2015 21:02
D-VB-F-16-2	240-54373-4	50818023.D	08/18/2015 21:26
D-VB-F-17-2	240-54373-5	50818024.D	08/18/2015 21:50
D-VB-F-18-2	240-54373-6	50818025.D	08/18/2015 22:14
D-VB-F-21-3	240-54373-7	50818026.D	08/18/2015 22:38
D-VB-F-22-2	240-54373-8	50818027.D	08/18/2015 23:02
D-DUP04-081415	240-54373-9	50818028.D	08/18/2015 23:26

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	MB 240-193501/23-A	50818018.D	08/18/2015	16:11
	LCS 240-193501/24-A	50818019.D	08/18/2015	16:36
D-VB-F-6-2	240-54373-1	50818020.D	08/18/2015	20:14
D-VB-F-11-2	240-54373-2	50818021.D	08/18/2015	20:38
D-VB-F-12-2	240-54373-3	50818022.D	08/18/2015	21:02
D-VB-F-16-2	240-54373-4	50818023.D	08/18/2015	21:26
D-VB-F-17-2	240-54373-5	50818024.D	08/18/2015	21:50
D-VB-F-18-2	240-54373-6	50818025.D	08/18/2015	22:14
D-VB-F-21-3	240-54373-7	50818026.D	08/18/2015	22:38
D-VB-F-22-2	240-54373-8	50818027.D	08/18/2015	23:02
D-DUP04-081415	240-54373-9	50818028.D	08/18/2015	23:26

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193501/23-A		220827	6.11	984016	7.23	548343	8.73
LCS 240-193501/24-A		240552	6.11	1049643	7.23	575038	8.73
240-54373-1	D-VB-F-6-2	266835	6.11	1153825	7.23	632626	8.73
240-54373-2	D-VB-F-11-2	283885	6.11	1224865	7.23	670948	8.73
240-54373-3	D-VB-F-12-2	271704	6.11	1170378	7.23	630466	8.73
240-54373-4	D-VB-F-16-2	294820	6.11	1244967	7.23	671521	8.73
240-54373-5	D-VB-F-17-2	248099	6.11	1085002	7.23	580837	8.73
240-54373-6	D-VB-F-18-2	246441	6.11	1073942	7.23	575419	8.73
240-54373-7	D-VB-F-21-3	262503	6.11	1132265	7.23	629295	8.73
240-54373-8	D-VB-F-22-2	269869	6.11	1149283	7.23	630223	8.73
240-54373-9	D-DUP04-081415	246583	6.11	1055931	7.23	580629	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193501/23-A		922081	9.99	900632	12.62	752912	14.77
LCS 240-193501/24-A		948118	9.99	955369	12.62	824602	14.77
240-54373-1	D-VB-F-6-2	1045185	9.99	1040017	12.62	868864	14.77
240-54373-2	D-VB-F-11-2	1122661	9.99	1113099	12.62	918733	14.77
240-54373-3	D-VB-F-12-2	1054919	9.99	1053188	12.62	852373	14.77
240-54373-4	D-VB-F-16-2	1102805	9.99	1097445	12.62	907232	14.77
240-54373-5	D-VB-F-17-2	972701	9.99	986733	12.62	781122	14.77
240-54373-6	D-VB-F-18-2	983621	9.99	988451	12.62	791757	14.77
240-54373-7	D-VB-F-21-3	1042632	9.99	1071372	12.62	828526	14.77
240-54373-8	D-VB-F-22-2	1048257	9.99	1067660	12.62	824912	14.77
240-54373-9	D-DUP04-081415	964754	9.99	980049	12.62	757357	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-6-2 | Lab Sample ID: 240-54373-1

Matrix: Solid | Lab File ID: 50818020.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:40

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 20:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.94	U	8.0	0.94
56-55-3	Benzo[a]anthracene	0.76	U	8.0	0.76
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	0.71	U	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.0	0.82
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.64	U	8.0	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.99	U	8.0	0.99
85-01-8	Phenanthrene	0.88	U	8.0	0.88
129-00-0	Pyrene	0.53	U	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	49		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	47		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-11-2 | Lab Sample ID: 240-54373-2

Matrix: Solid | Lab File ID: 50818021.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:42

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.28(g) | Date Analyzed: 08/18/2015 20:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.82	U	7.2	0.82
208-96-8	Acenaphthylene	0.38	U	7.2	0.38
120-12-7	Anthracene	0.84	U	7.2	0.84
56-55-3	Benzo[a]anthracene	13		7.2	0.68
50-32-8	Benzo[a]pyrene	15		7.2	0.69
205-99-2	Benzo[b]fluoranthene	26		7.2	0.63
191-24-2	Benzo[g,h,i]perylene	11		7.2	0.38
207-08-9	Benzo[k]fluoranthene	6.2	J	7.2	0.73
218-01-9	Chrysene	20		7.2	1.2
53-70-3	Dibenz(a,h)anthracene	0.71	U	7.2	0.71
206-44-0	Fluoranthene	22		7.2	0.59
86-73-7	Fluorene	0.57	U	7.2	0.57
193-39-5	Indeno[1,2,3-cd]pyrene	10		7.2	0.38
91-20-3	Naphthalene	4.4	J	7.2	0.88
85-01-8	Phenanthrene	11		7.2	0.79
129-00-0	Pyrene	24		7.2	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	49		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	48		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	5	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-12-2 | Lab Sample ID: 240-54373-3

Matrix: Solid | Lab File ID: 50818022.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:44

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.21(g) | Date Analyzed: 08/18/2015 21:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	59		7.3	0.83
208-96-8	Acenaphthylene	7.2	J	7.3	0.38
120-12-7	Anthracene	90		7.3	0.85
56-55-3	Benzo[a]anthracene	210		7.3	0.69
50-32-8	Benzo[a]pyrene	210		7.3	0.70
205-99-2	Benzo[b]fluoranthene	280		7.3	0.65
191-24-2	Benzo[g,h,i]perylene	92		7.3	0.38
207-08-9	Benzo[k]fluoranthene	110		7.3	0.74
218-01-9	Chrysene	230		7.3	1.2
53-70-3	Dibenz(a,h)anthracene	34		7.3	0.72
206-44-0	Fluoranthene	440		7.3	0.60
86-73-7	Fluorene	37		7.3	0.58
193-39-5	Indeno[1,2,3-cd]pyrene	100		7.3	0.38
91-20-3	Naphthalene	17		7.3	0.90
85-01-8	Phenanthrene	330		7.3	0.80
129-00-0	Pyrene	370		7.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	43		36-110
4165-62-2	Phenol-d5 (Surr)	43		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	34		20-110
367-12-4	2-Fluorophenol (Surr)	41		24-110
321-60-8	2-Fluorobiphenyl (Surr)	43		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	4	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-16-2 | Lab Sample ID: 240-54373-4

Matrix: Solid | Lab File ID: 50818023.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:46

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.27(g) | Date Analyzed: 08/18/2015 21:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.86	U	7.6	0.86
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	0.88	U	7.6	0.88
56-55-3	Benzo[a]anthracene	0.71	U	7.6	0.71
50-32-8	Benzo[a]pyrene	0.72	U	7.6	0.72
205-99-2	Benzo[b]fluoranthene	0.67	U	7.6	0.67
191-24-2	Benzo[g,h,i]perylene	0.40	U	7.6	0.40
207-08-9	Benzo[k]fluoranthene	0.77	U	7.6	0.77
218-01-9	Chrysene	1.2	U	7.6	1.2
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	0.62	U	7.6	0.62
86-73-7	Fluorene	0.60	U	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	0.40	U	7.6	0.40
91-20-3	Naphthalene	0.93	U	7.6	0.93
85-01-8	Phenanthrene	0.83	U	7.6	0.83
129-00-0	Pyrene	0.50	U	7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	52		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-17-2 | Lab Sample ID: 240-54373-5

Matrix: Solid | Lab File ID: 50818024.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:48

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.02(g) | Date Analyzed: 08/18/2015 21:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	16		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	21		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	6.6	J	7.7	0.41
207-08-9	Benzo[k]fluoranthene	8.9		7.7	0.79
218-01-9	Chrysene	18		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	36		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	6.6	J	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	14		7.7	0.85
129-00-0	Pyrene	30		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		20-110
367-12-4	2-Fluorophenol (Surr)	53		24-110
321-60-8	2-Fluorobiphenyl (Surr)	51		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	9	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-18-2 | Lab Sample ID: 240-54373-6

Matrix: Solid | Lab File ID: 50818025.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:50

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.24(g) | Date Analyzed: 08/18/2015 22:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	6.8	J	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	20		8.2	0.96
56-55-3	Benzo[a]anthracene	110		8.2	0.77
50-32-8	Benzo[a]pyrene	88		8.2	0.79
205-99-2	Benzo[b]fluoranthene	130		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	52		8.2	0.43
207-08-9	Benzo[k]fluoranthene	59		8.2	0.83
218-01-9	Chrysene	120		8.2	1.4
53-70-3	Dibenz(a,h)anthracene	16		8.2	0.81
206-44-0	Fluoranthene	260		8.2	0.68
86-73-7	Fluorene	6.3	J	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	46		8.2	0.43
91-20-3	Naphthalene	5.8	J	8.2	1.0
85-01-8	Phenanthrene	120		8.2	0.90
129-00-0	Pyrene	210		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	57		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		20-110
367-12-4	2-Fluorophenol (Surr)	56		24-110
321-60-8	2-Fluorobiphenyl (Surr)	54		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-21-3 | Lab Sample ID: 240-54373-7

Matrix: Solid | Lab File ID: 50818026.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:52

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.21(g) | Date Analyzed: 08/18/2015 22:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.96	U	8.2	0.96
56-55-3	Benzo[a]anthracene	0.77	U	8.2	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.2	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.2	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.2	0.83
218-01-9	Chrysene	1.3	U	8.2	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.2	0.81
206-44-0	Fluoranthene	0.67	U	8.2	0.67
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	0.89	U	8.2	0.89
129-00-0	Pyrene	0.54	U	8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	48		36-110
4165-62-2	Phenol-d5 (Surr)	47		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	45		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-22-2 | Lab Sample ID: 240-54373-8

Matrix: Solid | Lab File ID: 50818027.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:54

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.25(g) | Date Analyzed: 08/18/2015 23:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	9.6		8.0	0.42
120-12-7	Anthracene	44		8.0	0.93
56-55-3	Benzo[a]anthracene	170		8.0	0.75
50-32-8	Benzo[a]pyrene	250		8.0	0.77
205-99-2	Benzo[b]fluoranthene	300		8.0	0.71
191-24-2	Benzo[g,h,i]perylene	110		8.0	0.42
207-08-9	Benzo[k]fluoranthene	140		8.0	0.81
218-01-9	Chrysene	340		8.0	1.3
53-70-3	Dibenz(a,h)anthracene	32		8.0	0.79
206-44-0	Fluoranthene	160		8.0	0.66
86-73-7	Fluorene	5.2	J	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	100		8.0	0.42
91-20-3	Naphthalene	16		8.0	0.98
85-01-8	Phenanthrene	45		8.0	0.87
129-00-0	Pyrene	160		8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	51		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-DUP04-081415 | Lab Sample ID: 240-54373-9

Matrix: Solid | Lab File ID: 50818028.D

Analysis Method: 8270D | Date Collected: 08/14/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 29.79(g) | Date Analyzed: 08/18/2015 23:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.94	U	8.2	0.94
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.96	U	8.2	0.96
56-55-3	Benzo[a]anthracene	9.6		8.2	0.78
50-32-8	Benzo[a]pyrene	7.0	J	8.2	0.79
205-99-2	Benzo[b]fluoranthene	12		8.2	0.73
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	4.3	J	8.2	0.84
218-01-9	Chrysene	8.0	J	8.2	1.4
53-70-3	Dibenz(a,h)anthracene	0.82	U	8.2	0.82
206-44-0	Fluoranthene	21		8.2	0.68
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	5.8	J	8.2	0.90
129-00-0	Pyrene	18		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	55		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 | Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193501/23-A

Matrix: Solid | Lab File ID: 50818018.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 16:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	62		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	58		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-193501/24-A

Matrix: Solid | Lab File ID: 50818019.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 16:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	358		6.7	0.76
208-96-8	Acenaphthylene	367		6.7	0.35
120-12-7	Anthracene	379		6.7	0.78
56-55-3	Benzo[a]anthracene	389		6.7	0.63
50-32-8	Benzo[a]pyrene	404		6.7	0.64
205-99-2	Benzo[b]fluoranthene	402		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	430		6.7	0.35
207-08-9	Benzo[k]fluoranthene	379		6.7	0.68
218-01-9	Chrysene	401		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	458		6.7	0.66
206-44-0	Fluoranthene	381		6.7	0.55
86-73-7	Fluorene	356		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	455		6.7	0.35
91-20-3	Naphthalene	357		6.7	0.82
85-01-8	Phenanthrene	371		6.7	0.73
129-00-0	Pyrene	389		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	61		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	50		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	56		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	19		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: A4HP10 Start Date: 07/23/2015 08:38

Analysis Batch Number: 190307 End Date: 07/23/2015 20:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-190307/1		07/23/2015 08:38	1	50723001.D	DB-624 0.18(mm)
STD9 240-190307/2 IC		07/23/2015 09:02	1	50723002.D	DB-624 0.18(mm)
STD8 240-190307/3 IC		07/23/2015 09:26	1	50723003.D	DB-624 0.18(mm)
STD7 240-190307/4 IC		07/23/2015 09:50	1	50723004.D	DB-624 0.18(mm)
STD6 240-190307/5 ICIS		07/23/2015 10:14	1	50723005.D	DB-624 0.18(mm)
STD5 240-190307/6 IC		07/23/2015 10:39	1	50723006.D	DB-624 0.18(mm)
STD4 240-190307/7 IC		07/23/2015 11:03	1	50723007.D	DB-624 0.18(mm)
STD3 240-190307/8 IC		07/23/2015 11:27	1	50723008.D	DB-624 0.18(mm)
STD2 240-190307/9 IC		07/23/2015 11:51	1	50723009.D	DB-624 0.18(mm)
STD1 240-190307/10 IC		07/23/2015 12:15	1	50723010.D	DB-624 0.18(mm)
ICV 240-190307/11		07/23/2015 12:40	1	50723011.D	DB-624 0.18(mm)
STD9 240-190307/12 IC		07/23/2015 13:04	1		DB-624 0.18(mm)
STD8 240-190307/13 IC		07/23/2015 13:28	1		DB-624 0.18(mm)
STD7 240-190307/14 IC		07/23/2015 13:52	1		DB-624 0.18(mm)
STD6 240-190307/15 IC		07/23/2015 14:16	1		DB-624 0.18(mm)
STD5 240-190307/16 IC		07/23/2015 14:41	1		DB-624 0.18(mm)
STD4 240-190307/17 IC		07/23/2015 15:05	1		DB-624 0.18(mm)
STD3 240-190307/18 IC		07/23/2015 15:29	1		DB-624 0.18(mm)
STD2 240-190307/19 IC		07/23/2015 15:53	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 16:17	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 16:41	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:06	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:30	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 17:54	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 18:18	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 18:42	50		DB-624 0.18(mm)
ZZZZZ		07/23/2015 19:06	1		DB-624 0.18(mm)
ZZZZZ		07/23/2015 20:19	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: A4HP10 Start Date: 08/18/2015 12:28

Analysis Batch Number: 193693 End Date: 08/19/2015 00:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-193693/1		08/18/2015 12:28	1	50818001.D	DB-624 0.18(mm)
CCV 240-193693/2 CCVIS		08/18/2015 12:52	1	50818002.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 13:46	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 14:10	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 14:34	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 14:59	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 15:23	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 15:47	1		DB-624 0.18(mm)
MB 240-193501/23-A		08/18/2015 16:11	1	50818018.D	DB-624 0.18(mm)
LCS 240-193501/24-A		08/18/2015 16:36	1	50818019.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 17:00	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 17:24	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 17:48	1		DB-624 0.18(mm)
ZZZZZ		08/18/2015 18:13	2		DB-624 0.18(mm)
ZZZZZ		08/18/2015 18:37	2.5		DB-624 0.18(mm)
ZZZZZ		08/18/2015 19:01	4		DB-624 0.18(mm)
ZZZZZ		08/18/2015 19:49	6.667		DB-624 0.18(mm)
240-54373-1	D-VB-F-6-2	08/18/2015 20:14	1	50818020.D	DB-624 0.18(mm)
240-54373-2	D-VB-F-11-2	08/18/2015 20:38	1	50818021.D	DB-624 0.18(mm)
240-54373-3	D-VB-F-12-2	08/18/2015 21:02	1	50818022.D	DB-624 0.18(mm)
240-54373-4	D-VB-F-16-2	08/18/2015 21:26	1	50818023.D	DB-624 0.18(mm)
240-54373-5	D-VB-F-17-2	08/18/2015 21:50	1	50818024.D	DB-624 0.18(mm)
240-54373-6	D-VB-F-18-2	08/18/2015 22:14	1	50818025.D	DB-624 0.18(mm)
240-54373-7	D-VB-F-21-3	08/18/2015 22:38	1	50818026.D	DB-624 0.18(mm)
240-54373-8	D-VB-F-22-2	08/18/2015 23:02	1	50818027.D	DB-624 0.18(mm)
240-54373-9	D-DUP04-081415	08/18/2015 23:26	1	50818028.D	DB-624 0.18(mm)
ZZZZZ		08/18/2015 23:50	1		DB-624 0.18(mm)
ZZZZZ		08/19/2015 00:14	1		DB-624 0.18(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Batch Number: 193501 Batch Start Date: 08/17/15 10:40 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/18/15 02:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00027	exBNASPIKE 00048	exBNASURR W 00026	
240-54373-B-1	D-VB-F-6-2	3540C, 8270D	T	30.03 g	2 mL			1 mL	
240-54373-B-2	D-VB-F-11-2	3540C, 8270D	T	30.28 g	2 mL			1 mL	
240-54373-B-3	D-VB-F-12-2	3540C, 8270D	T	30.21 g	2 mL			1 mL	
240-54373-B-4	D-VB-F-16-2	3540C, 8270D	T	30.27 g	2 mL			1 mL	
240-54373-B-5	D-VB-F-17-2	3540C, 8270D	T	30.02 g	2 mL			1 mL	
240-54373-B-6	D-VB-F-18-2	3540C, 8270D	T	30.24 g	2 mL			1 mL	
240-54373-B-7	D-VB-F-21-3	3540C, 8270D	T	30.21 g	2 mL			1 mL	
240-54373-B-8	D-VB-F-22-2	3540C, 8270D	T	30.25 g	2 mL			1 mL	
240-54373-B-9	D-DUP04-081415	3540C, 8270D	T	29.79 g	2 mL			1 mL	
MB 240-193501/23		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-193501/24		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54373-1

SDG No.:

Project: MRC Soil Remedy Block D

Client Sample ID	Lab Sample ID
D-VB-F-6-2	240-54373-1
D-VB-F-11-2	240-54373-2
D-VB-F-12-2	240-54373-3
D-VB-F-16-2	240-54373-4
D-VB-F-17-2	240-54373-5
D-VB-F-18-2	240-54373-6
D-VB-F-21-3	240-54373-7
D-VB-F-22-2	240-54373-8
D-DUP04-081415	240-54373-9

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54373-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54373-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/17/2015 13:33 End Date: 08/17/2015 13:33

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			13:33																					
ZZZZZZ			13:33																					
ZZZZZZ			13:33																					
ZZZZZZ			13:33																					
ZZZZZZ			13:33																					
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/17/2015 13:33 End Date: 08/17/2015 13:33

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
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ZZZZZZ			13:33																				
240-54373-1	1	T	13:33	X	X																		
240-54373-2	1	T	13:33	X	X																		
240-54373-2 DU	1	T	13:33	X	X																		
240-54373-3	1	T	13:33	X	X																		
240-54373-4	1	T	13:33	X	X																		
240-54373-5	1	T	13:33	X	X																		
240-54373-6	1	T	13:33	X	X																		
240-54373-7	1	T	13:33	X	X																		
240-54373-8	1	T	13:33	X	X																		
240-54373-9	1	T	13:33	X	X																		
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/17/2015 13:33 End Date: 08/17/2015 13:33

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Batch Number: 193596 Batch Start Date: 08/17/15 13:33 Batch Analyst: Nolle, Laura C

Batch Method: Moisture Batch End Date: 08/18/15 11:08

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54373-A-1	D-VB-F-6-2	Moisture	T	4.2475 g	11.2301 g	10.0477 g			
240-54373-A-2	D-VB-F-11-2	Moisture	T	4.2475 g	7.6510 g	7.3828 g			
240-54373-A-2 DU	D-VB-F-11-2	Moisture	T	4.2475 g	7.4416 g	7.1555 g			
240-54373-A-3	D-VB-F-12-2	Moisture	T	4.2475 g	11.1647 g	10.5207 g			
240-54373-A-4	D-VB-F-16-2	Moisture	T	4.2475 g	17.8821 g	16.1803 g			
240-54373-A-5	D-VB-F-17-2	Moisture	T	4.2475 g	10.6749 g	9.7859 g			
240-54373-A-6	D-VB-F-18-2	Moisture	T	4.2475 g	14.7430 g	12.7295 g			
240-54373-A-7	D-VB-F-21-3	Moisture	T	4.2475 g	13.5600 g	11.7989 g			
240-54373-A-8	D-VB-F-22-2	Moisture	T	4.2475 g	11.7796 g	10.4871 g			
240-54373-A-9	D-DUP04-081415	Moisture	T	4.2475 g	14.0192 g	12.2159 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	08/17/15
Oven Temp when samples are put in oven	103.1 Degrees C
Time samples were place in the oven	14:04
Date samples were removed from oven	8/18/15
Oven Temp when samples removed from oven	103.3 Degrees C
Time Samples were removed from oven	05:00
Oven ID	002
ID number of the thermometer	Tempguard Box C #6

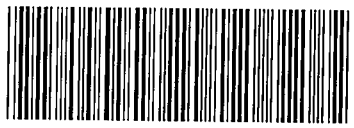
Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-54373 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

CHAIN OF CUSTODY RECORD

1.8 | C28 #30

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAH (8270D)	REMARKS
MRC	8/14/15	1140		X	D-VB-F-6-2	1	X	# TESTAMERICA NORTH CANTON
		1142		X	D-VB-F-11-2		X	# SCOTT NESBIT P.M.
		1144		X	D-VB-F-12-2		X	# 3 DAY TAT #
		1146		X	D-VB-F-16-2		X	
		1148		X	D-VB-F-17-2		X	
		1150		X	D-VB-F-18-2		X	
		1152		X	D-VB-F-21-3		X	
		1154		X	D-VB-F-22-2		X	
		—		X	D-DUP04-081415		X	

8/14/15

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1600				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1700		—		
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA F.	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 54373

Client Tetra Tech Site Name MRC ~~AMPE~~ Soil Remedy

Cooler unpacked by: Heather Wagoner

Cooler Received on 8/15/15 Opened on 8/15/15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   - IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
   - ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   - ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   - IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   - -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   - -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC432654
12. Were VOAs on the COC? Yes (No)
13. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes (No)

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

ANALYTICAL REPORT

Job Number: 240-54467-1

Job Description: LMC MRC Block D Area F

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
8/24/2015 3:19 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/24/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LMC MRC Block D Area F

Report Number: 240-54467-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/19/2015 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F-4-1 (240-54467-1), D-VB-F-10-2 (240-54467-2), D-VB-F-13-2 (240-54467-3), D-VB-F-14-2 (240-54467-4), D-VB-F-15-2 (240-54467-5) and D-VB-F-19-2 (240-54467-6) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/20/2015 and analyzed on 08/22/2015.

Sample D-VB-F-13-2 (240-54467-3)[6.67X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F-4-1 (240-54467-1), D-VB-F-10-2 (240-54467-2), D-VB-F-13-2 (240-54467-3), D-VB-F-14-2 (240-54467-4), D-VB-F-15-2 (240-54467-5) and D-VB-F-19-2 (240-54467-6) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/19/2015.

Percent Moisture exceeded the RPD limit for the duplicate of sample D-VB-F-10-2DU (240-54467-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Client Sample ID: D-VS-F-4-1 — Lab Sample ID: 240-54467-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	10		7.4	0.85	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	22		7.4	0.39	ug/Kg	1	☼	8270D	Total/NA
Anthracene	39		7.4	0.87	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	200		7.4	0.70	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	230		7.4	0.71	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	350		7.4	0.66	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	260		7.4	0.39	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	130		7.4	0.76	ug/Kg	1	☼	8270D	Total/NA
Chrysene	270		7.4	1.2	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	54		7.4	0.73	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	410		7.4	0.61	ug/Kg	1	☼	8270D	Total/NA
Fluorene	13		7.4	0.59	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	190		7.4	0.39	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	12		7.4	0.91	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	180		7.4	0.81	ug/Kg	1	☼	8270D	Total/NA
Pyrene	410		7.4	0.49	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: D-VB-F-10-2 — Lab Sample ID: 240-54467-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	4.4	J	7.1	0.80	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	6.1	J	7.1	0.37	ug/Kg	1	☼	8270D	Total/NA
Anthracene	12		7.1	0.82	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	43		7.1	0.67	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	47		7.1	0.68	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	58		7.1	0.62	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	36		7.1	0.37	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	32		7.1	0.72	ug/Kg	1	☼	8270D	Total/NA
Chrysene	52		7.1	1.2	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	81		7.1	0.58	ug/Kg	1	☼	8270D	Total/NA
Fluorene	6.6	J	7.1	0.56	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	31		7.1	0.37	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	12		7.1	0.87	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	47		7.1	0.77	ug/Kg	1	☼	8270D	Total/NA
Pyrene	76		7.1	0.47	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: D-VB-F-13-2 — Lab Sample ID: 240-54467-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	510		49	5.6	ug/Kg	6.667	☼	8270D	Total/NA
Acenaphthylene	71		49	2.6	ug/Kg	6.667	☼	8270D	Total/NA
Anthracene	1400		49	5.7	ug/Kg	6.667	☼	8270D	Total/NA
Benzo[a]anthracene	2900		49	4.6	ug/Kg	6.667	☼	8270D	Total/NA
Benzo[a]pyrene	2700		49	4.7	ug/Kg	6.667	☼	8270D	Total/NA
Benzo[b]fluoranthene	3200		49	4.3	ug/Kg	6.667	☼	8270D	Total/NA
Benzo[g,h,i]perylene	2000		49	2.6	ug/Kg	6.667	☼	8270D	Total/NA
Benzo[k]fluoranthene	1600		49	5.0	ug/Kg	6.667	☼	8270D	Total/NA
Chrysene	2900		49	8.0	ug/Kg	6.667	☼	8270D	Total/NA
Dibenz(a,h)anthracene	580		49	4.8	ug/Kg	6.667	☼	8270D	Total/NA
Fluoranthene	6300		49	4.0	ug/Kg	6.667	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: D-VB-F-13-2 (Continued) — Lab Sample ID: 240-54467-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	570		49	3.9	ug/Kg	6.667	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1700		49	2.6	ug/Kg	6.667	☼	8270D	Total/NA
Naphthalene	47	J	49	6.0	ug/Kg	6.667	☼	8270D	Total/NA
Phenanthrene	4700		49	5.3	ug/Kg	6.667	☼	8270D	Total/NA
Pyrene	5200		49	3.2	ug/Kg	6.667	☼	8270D	Total/NA

Client Sample ID: D-VB-F-14-2 — Lab Sample ID: 240-54467-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	5.8	J	7.9	0.76	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	6.4	J	7.9	0.70	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	19		7.9	0.42	ug/Kg	1	☼	8270D	Total/NA
Chrysene	11		7.9	1.3	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	4.1	J	7.9	0.65	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	13		7.9	0.42	ug/Kg	1	☼	8270D	Total/NA
Pyrene	4.7	J	7.9	0.52	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: D-VB-F-15-2 — Lab Sample ID: 240-54467-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	7.1	J	7.7	0.87	ug/Kg	1	☼	8270D	Total/NA
Anthracene	15		7.7	0.90	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	48		7.7	0.72	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	50		7.7	0.74	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	65		7.7	0.68	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	43		7.7	0.40	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	29		7.7	0.78	ug/Kg	1	☼	8270D	Total/NA
Chrysene	49		7.7	1.3	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	10		7.7	0.76	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	86		7.7	0.63	ug/Kg	1	☼	8270D	Total/NA
Fluorene	7.8		7.7	0.61	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	35		7.7	0.40	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	7.3	J	7.7	0.94	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	45		7.7	0.84	ug/Kg	1	☼	8270D	Total/NA
Pyrene	75		7.7	0.51	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: D-VB-F-19-2 — Lab Sample ID: 240-54467-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	5.9	J	7.8	0.91	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	14		7.8	0.73	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	10		7.8	0.74	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	36		7.8	0.69	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	22		7.8	0.41	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	12		7.8	0.79	ug/Kg	1	☼	8270D	Total/NA
Chrysene	42		7.8	1.3	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	34		7.8	0.64	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	17		7.8	0.41	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	4.1	J	7.8	0.95	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	15		7.8	0.85	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: D-VB-F-19-2 (Continued)

Lab Sample ID: 240-54467-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	30		7.8	0.51	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: D-VS-F-4-1 — Lab Sample ID: 240-54467-1

Date Collected: 08/18/15 09:30 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 90.4**

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	10		7.4	0.85	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Acenaphthylene	22		7.4	0.39	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Anthracene	39		7.4	0.87	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Benzo[a]anthracene	200		7.4	0.70	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Benzo[a]pyrene	230		7.4	0.71	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Benzo[b]fluoranthene	350		7.4	0.66	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Benzo[g,h,i]perylene	260		7.4	0.39	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Benzo[k]fluoranthene	130		7.4	0.76	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Chrysene	270		7.4	1.2	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Dibenz(a,h)anthracene	54		7.4	0.73	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Fluoranthene	410		7.4	0.61	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Fluorene	13		7.4	0.59	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Indeno[1,2,3-cd]pyrene	190		7.4	0.39	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Naphthalene	12		7.4	0.91	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Phenanthrene	180		7.4	0.81	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1
Pyrene	410		7.4	0.49	ug/Kg	☼	08/20/15 07:47	08/22/15 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*82*		*36 - 110*	*08/20/15 07:47*	*08/22/15 18:16*	*1*
Phenol-d5 (Surr)	*69*		*26 - 110*	*08/20/15 07:47*	*08/22/15 18:16*	*1*
Nitrobenzene-d5 (Surr)	*53*		*20 - 110*	*08/20/15 07:47*	*08/22/15 18:16*	*1*
2-Fluorophenol (Surr)	*60*		*24 - 110*	*08/20/15 07:47*	*08/22/15 18:16*	*1*
2-Fluorobiphenyl (Surr)	*64*		*24 - 110*	*08/20/15 07:47*	*08/22/15 18:16*	*1*
2,4,6-Tribromophenol (Surr)	*37*		*10 - 110*	*08/20/15 07:47*	*08/22/15 18:16*	*1*

Client Sample ID: D-VB-F-10-2 — Lab Sample ID: 240-54467-2

Date Collected: 08/18/15 10:30 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 93.9**

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	4.4	J	7.1	0.80	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Acenaphthylene	6.1	J	7.1	0.37	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Anthracene	12		7.1	0.82	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Benzo[a]anthracene	43		7.1	0.67	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Benzo[a]pyrene	47		7.1	0.68	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Benzo[b]fluoranthene	58		7.1	0.62	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Benzo[g,h,i]perylene	36		7.1	0.37	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Benzo[k]fluoranthene	32		7.1	0.72	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Chrysene	52		7.1	1.2	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Dibenz(a,h)anthracene	0.70	U	7.1	0.70	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Fluoranthene	81		7.1	0.58	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Fluorene	6.6	J	7.1	0.56	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Indeno[1,2,3-cd]pyrene	31		7.1	0.37	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Naphthalene	12		7.1	0.87	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Phenanthrene	47		7.1	0.77	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1
Pyrene	76		7.1	0.47	ug/Kg	☼	08/20/15 07:47	08/22/15 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*80*		*36 - 110*	*08/20/15 07:47*	*08/22/15 18:41*	*1*

Client Sample ID: D-VB-F-10-2 — Lab Sample ID: 240-54467-2

Date Collected: 08/18/15 10:30 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 93.9**

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	65		26 - 110	08/20/15 07:47	08/22/15 18:41	1
Nitrobenzene-d5 (Surr)	49		20 - 110	08/20/15 07:47	08/22/15 18:41	1
2-Fluorophenol (Surr)	59		24 - 110	08/20/15 07:47	08/22/15 18:41	1
2-Fluorobiphenyl (Surr)	62		24 - 110	08/20/15 07:47	08/22/15 18:41	1
2,4,6-Tribromophenol (Surr)	51		10 - 110	08/20/15 07:47	08/22/15 18:41	1

Client Sample ID: D-VB-F-13-2 — Lab Sample ID: 240-54467-3

Date Collected: 08/18/15 10:33 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 91.1**

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**510**		49	5.6	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Acenaphthylene	**71**		49	2.6	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Anthracene	**1400**		49	5.7	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Benzo[a]anthracene	**2900**		49	4.6	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Benzo[a]pyrene	**2700**		49	4.7	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Benzo[b]fluoranthene	**3200**		49	4.3	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Benzo[g,h,i]perylene	**2000**		49	2.6	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Benzo[k]fluoranthene	**1600**		49	5.0	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Chrysene	**2900**		49	8.0	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Dibenz(a,h)anthracene	**580**		49	4.8	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Fluoranthene	**6300**		49	4.0	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Fluorene	**570**		49	3.9	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Indeno[1,2,3-cd]pyrene	**1700**		49	2.6	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Naphthalene	**47**	**J**	49	6.0	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Phenanthrene	**4700**		49	5.3	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667
Pyrene	**5200**		49	3.2	ug/Kg	☼	08/20/15 07:47	08/22/15 19:05	6.667

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14 (Surr)	82		36 - 110	08/20/15 07:47	08/22/15 19:05	6.667
Phenol-d5 (Surr)	72		26 - 110	08/20/15 07:47	08/22/15 19:05	6.667
Nitrobenzene-d5 (Surr)	58		20 - 110	08/20/15 07:47	08/22/15 19:05	6.667
2-Fluorophenol (Surr)	62		24 - 110	08/20/15 07:47	08/22/15 19:05	6.667
2-Fluorobiphenyl (Surr)	70		24 - 110	08/20/15 07:47	08/22/15 19:05	6.667
2,4,6-Tribromophenol (Surr)	37		10 - 110	08/20/15 07:47	08/22/15 19:05	6.667

Client Sample ID: D-VB-F-14-2 — Lab Sample ID: 240-54467-4

Date Collected: 08/18/15 10:35 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 84.4**

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.90	U	7.9	0.90	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Acenaphthylene	0.42	U	7.9	0.42	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Anthracene	0.93	U	7.9	0.93	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Benzo[a]anthracene	0.75	U	7.9	0.75	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Benzo[a]pyrene	**5.8**	**J**	7.9	0.76	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Benzo[b]fluoranthene	**6.4**	**J**	7.9	0.70	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Benzo[g,h,i]perylene	**19**		7.9	0.42	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1

Client Sample ID: D-VB-F-14-2 — Lab Sample ID: 240-54467-4

Date Collected: 08/18/15 10:35 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 84.4**

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	0.81	U	7.9	0.81	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Chrysene	**11**		7.9	1.3	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Dibenz(a,h)anthracene	0.78	U	7.9	0.78	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Fluoranthene	**4.1**	**J**	7.9	0.65	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Fluorene	0.63	U	7.9	0.63	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Indeno[1,2,3-cd]pyrene	**13**		7.9	0.42	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Naphthalene	0.97	U	7.9	0.97	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Phenanthrene	0.87	U	7.9	0.87	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1
Pyrene	**4.7**	**J**	7.9	0.52	ug/Kg	☼	08/20/15 07:47	08/22/15 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*90*		*36 - 110*	*08/20/15 07:47*	*08/22/15 17:01*	*1*
Phenol-d5 (Surr)	*58*		*26 - 110*	*08/20/15 07:47*	*08/22/15 17:01*	*1*
Nitrobenzene-d5 (Surr)	*47*		*20 - 110*	*08/20/15 07:47*	*08/22/15 17:01*	*1*
2-Fluorophenol (Surr)	*55*		*24 - 110*	*08/20/15 07:47*	*08/22/15 17:01*	*1*
2-Fluorobiphenyl (Surr)	*52*		*24 - 110*	*08/20/15 07:47*	*08/22/15 17:01*	*1*
2,4,6-Tribromophenol (Surr)	*45*		*10 - 110*	*08/20/15 07:47*	*08/22/15 17:01*	*1*

Client Sample ID: D-VB-F-15-2 — Lab Sample ID: 240-54467-5

Date Collected: 08/18/15 10:37 — **Matrix: Solid**
Date Received: 08/19/15 09:20 — **Percent Solids: 88.0**

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**7.1**	**J**	7.7	0.87	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Acenaphthylene	0.40	U	7.7	0.40	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Anthracene	**15**		7.7	0.90	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Benzo[a]anthracene	**48**		7.7	0.72	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Benzo[a]pyrene	**50**		7.7	0.74	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Benzo[b]fluoranthene	**65**		7.7	0.68	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Benzo[g,h,i]perylene	**43**		7.7	0.40	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Benzo[k]fluoranthene	**29**		7.7	0.78	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Chrysene	**49**		7.7	1.3	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Dibenz(a,h)anthracene	**10**		7.7	0.76	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Fluoranthene	**86**		7.7	0.63	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Fluorene	**7.8**		7.7	0.61	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Indeno[1,2,3-cd]pyrene	**35**		7.7	0.40	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Naphthalene	**7.3**	**J**	7.7	0.94	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Phenanthrene	**45**		7.7	0.84	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1
Pyrene	**75**		7.7	0.51	ug/Kg	☼	08/20/15 07:47	08/22/15 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*84*		*36 - 110*	*08/20/15 07:47*	*08/22/15 17:51*	*1*
Phenol-d5 (Surr)	*79*		*26 - 110*	*08/20/15 07:47*	*08/22/15 17:51*	*1*
Nitrobenzene-d5 (Surr)	*63*		*20 - 110*	*08/20/15 07:47*	*08/22/15 17:51*	*1*
2-Fluorophenol (Surr)	*72*		*24 - 110*	*08/20/15 07:47*	*08/22/15 17:51*	*1*
2-Fluorobiphenyl (Surr)	*70*		*24 - 110*	*08/20/15 07:47*	*08/22/15 17:51*	*1*
2,4,6-Tribromophenol (Surr)	*53*		*10 - 110*	*08/20/15 07:47*	*08/22/15 17:51*	*1*

Client Sample ID: D-VB-F-19-2
Date Collected: 08/18/15 10:40
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-6
Matrix: Solid
Percent Solids: 86.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.88	U	7.8	0.88	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Acenaphthylene	0.41	U	7.8	0.41	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Anthracene	**5.9**	**J**	7.8	0.91	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Benzo[a]anthracene	**14**		7.8	0.73	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Benzo[a]pyrene	**10**		7.8	0.74	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Benzo[b]fluoranthene	**36**		7.8	0.69	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Benzo[g,h,i]perylene	**22**		7.8	0.41	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Benzo[k]fluoranthene	**12**		7.8	0.79	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Chrysene	**42**		7.8	1.3	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Dibenz(a,h)anthracene	0.77	U	7.8	0.77	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Fluoranthene	**34**		7.8	0.64	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Fluorene	0.62	U	7.8	0.62	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Indeno[1,2,3-cd]pyrene	**17**		7.8	0.41	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Naphthalene	**4.1**	**J**	7.8	0.95	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Phenanthrene	**15**		7.8	0.85	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1
Pyrene	**30**		7.8	0.51	ug/Kg	☼	08/20/15 07:47	08/22/15 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*83*		*36 - 110*	*08/20/15 07:47*	*08/22/15 17:26*	*1*
Phenol-d5 (Surr)	*74*		*26 - 110*	*08/20/15 07:47*	*08/22/15 17:26*	*1*
Nitrobenzene-d5 (Surr)	*62*		*20 - 110*	*08/20/15 07:47*	*08/22/15 17:26*	*1*
2-Fluorophenol (Surr)	*70*		*24 - 110*	*08/20/15 07:47*	*08/22/15 17:26*	*1*
2-Fluorobiphenyl (Surr)	*67*		*24 - 110*	*08/20/15 07:47*	*08/22/15 17:26*	*1*
2,4,6-Tribromophenol (Surr)	*41*		*10 - 110*	*08/20/15 07:47*	*08/22/15 17:26*	*1*

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units	Method
Acenaphthene	6.7	0.76	ug/Kg	8270D
Acenaphthylene	6.7	0.35	ug/Kg	8270D
Anthracene	6.7	0.78	ug/Kg	8270D
Benzo[a]anthracene	6.7	0.63	ug/Kg	8270D
Benzo[a]pyrene	6.7	0.64	ug/Kg	8270D
Benzo[b]fluoranthene	6.7	0.59	ug/Kg	8270D
Benzo[g,h,i]perylene	6.7	0.35	ug/Kg	8270D
Benzo[k]fluoranthene	6.7	0.68	ug/Kg	8270D
Chrysene	6.7	1.1	ug/Kg	8270D
Dibenz(a,h)anthracene	6.7	0.66	ug/Kg	8270D
Fluoranthene	6.7	0.55	ug/Kg	8270D
Fluorene	6.7	0.53	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene	6.7	0.35	ug/Kg	8270D
Naphthalene	6.7	0.82	ug/Kg	8270D
Phenanthrene	6.7	0.73	ug/Kg	8270D
Pyrene	6.7	0.44	ug/Kg	8270D

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TPH	PHL	NBZ	2FP	FBP	TBP
Lab Sample ID	Client Sample ID	(36-110)	(26-110)	(20-110)	(24-110)	(24-110)	(10-110)
240-54203-C-19-H MS	Matrix Spike	84	57	53	54	57	41
240-54203-C-19-I MSD	Matrix Spike Duplicate	83	65	57	57	62	47
240-54467-1	D-VS-F-4-1	82	69	53	60	64	37
240-54467-2	D-VB-F-10-2	80	65	49	59	62	51
240-54467-3	D-VB-F-13-2	82	72	58	62	70	37
240-54467-4	D-VB-F-14-2	90	58	47	55	52	45
240-54467-5	D-VB-F-15-2	84	79	63	72	70	53
240-54467-6	D-VB-F-19-2	83	74	62	70	67	41
LCS 240-194053/13-A	Lab Control Sample	95	80	82	79	77	42
MB 240-194053/12-A	Method Blank	93	77	69	69	73	24

Surrogate Legend

TPH = Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-194053/12-A
Matrix: Solid
Analysis Batch: 194396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 194053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	6.7	0.76	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Acenaphthylene	0.35	U	6.7	0.35	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Anthracene	0.78	U	6.7	0.78	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Benzo[a]anthracene	0.63	U	6.7	0.63	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Benzo[a]pyrene	0.64	U	6.7	0.64	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Benzo[b]fluoranthene	0.59	U	6.7	0.59	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Benzo[g,h,i]perylene	0.35	U	6.7	0.35	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Benzo[k]fluoranthene	0.68	U	6.7	0.68	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Chrysene	1.1	U	6.7	1.1	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Dibenz(a,h)anthracene	0.66	U	6.7	0.66	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Fluoranthene	0.55	U	6.7	0.55	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Fluorene	0.53	U	6.7	0.53	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Naphthalene	0.82	U	6.7	0.82	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Phenanthrene	0.73	U	6.7	0.73	ug/Kg		08/20/15 07:47	08/22/15 10:50	1
Pyrene	0.44	U	6.7	0.44	ug/Kg		08/20/15 07:47	08/22/15 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*93*		*36 - 110*	*08/20/15 07:47*	*08/22/15 10:50*	*1*
Phenol-d5 (Surr)	*77*		*26 - 110*	*08/20/15 07:47*	*08/22/15 10:50*	*1*
Nitrobenzene-d5 (Surr)	*69*		*20 - 110*	*08/20/15 07:47*	*08/22/15 10:50*	*1*
2-Fluorophenol (Surr)	*69*		*24 - 110*	*08/20/15 07:47*	*08/22/15 10:50*	*1*
2-Fluorobiphenyl (Surr)	*73*		*24 - 110*	*08/20/15 07:47*	*08/22/15 10:50*	*1*
2,4,6-Tribromophenol (Surr)	*24*		*10 - 110*	*08/20/15 07:47*	*08/22/15 10:50*	*1*

Lab Sample ID: LCS 240-194053/13-A
Matrix: Solid
Analysis Batch: 194396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	667	529		ug/Kg		79	38 - 110
Acenaphthylene	667	542		ug/Kg		81	40 - 110
Anthracene	667	539		ug/Kg		81	48 - 110
Benzo[a]anthracene	667	595		ug/Kg		89	50 - 110
Benzo[a]pyrene	667	613		ug/Kg		92	44 - 110
Benzo[b]fluoranthene	667	596		ug/Kg		89	43 - 110
Benzo[g,h,i]perylene	667	710		ug/Kg		107	51 - 110
Benzo[k]fluoranthene	667	640		ug/Kg		96	38 - 105
Chrysene	667	619		ug/Kg		93	50 - 110
Dibenz(a,h)anthracene	667	699		ug/Kg		105	51 - 110
Fluoranthene	667	575		ug/Kg		86	51 - 110
Fluorene	667	539		ug/Kg		81	46 - 110
Indeno[1,2,3-cd]pyrene	667	682		ug/Kg		102	50 - 110
Naphthalene	667	548		ug/Kg		82	36 - 110
Phenanthrene	667	526		ug/Kg		79	49 - 110
Pyrene	667	646		ug/Kg		97	49 - 110

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-194053/13-A
Matrix: Solid
Analysis Batch: 194396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194053

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14 (Surr)	95		36 - 110
Phenol-d5 (Surr)	80		26 - 110
Nitrobenzene-d5 (Surr)	82		20 - 110
2-Fluorophenol (Surr)	79		24 - 110
2-Fluorobiphenyl (Surr)	77		24 - 110
2,4,6-Tribromophenol (Surr)	42		10 - 110

Lab Sample ID: 240-54203-C-19-H MS
Matrix: Solid
Analysis Batch: 194396

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 194053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	8.8		814	533		ug/Kg	☼	64	22 - 110
Acenaphthylene	130		814	579		ug/Kg	☼	55	24 - 110
Anthracene	130		814	658		ug/Kg	☼	65	20 - 110
Benzo[a]anthracene	650		814	855		ug/Kg	☼	26	10 - 122
Benzo[a]pyrene	640	F1	814	869		ug/Kg	☼	28	10 - 110
Benzo[b]fluoranthene	800	F1	814	946		ug/Kg	☼	18	12 - 118
Benzo[g,h,i]perylene	380		814	799		ug/Kg	☼	52	10 - 117
Benzo[k]fluoranthene	370		814	760		ug/Kg	☼	49	10 - 121
Chrysene	630		814	882		ug/Kg	☼	31	10 - 125
Dibenz(a,h)anthracene	110		814	719		ug/Kg	☼	75	14 - 113
Fluoranthene	1100	F1	814	1010	F1	ug/Kg	☼	-6	10 - 110
Fluorene	26		814	589		ug/Kg	☼	69	23 - 110
Indeno[1,2,3-cd]pyrene	360		814	810		ug/Kg	☼	55	10 - 114
Naphthalene	8.0	J	814	459		ug/Kg	☼	55	10 - 111
Phenanthrene	270		814	744		ug/Kg	☼	58	10 - 166
Pyrene	960	F1	814	990	F1	ug/Kg	☼	4	10 - 147

Surrogate	MS %Recovery	MS Qualifier	Limits
Terphenyl-d14 (Surr)	84		36 - 110
Phenol-d5 (Surr)	57		26 - 110
Nitrobenzene-d5 (Surr)	53		20 - 110
2-Fluorophenol (Surr)	54		24 - 110
2-Fluorobiphenyl (Surr)	57		24 - 110
2,4,6-Tribromophenol (Surr)	41		10 - 110

Lab Sample ID: 240-54203-C-19-I MSD
Matrix: Solid
Analysis Batch: 194396

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 194053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	8.8		817	585		ug/Kg	☼	70	22 - 110	9	99
Acenaphthylene	130		817	793		ug/Kg	☼	81	24 - 110	31	99
Anthracene	130		817	795		ug/Kg	☼	81	20 - 110	19	99
Benzo[a]anthracene	650		817	1540		ug/Kg	☼	109	10 - 122	57	99
Benzo[a]pyrene	640	F1	817	1550	F1	ug/Kg	☼	111	10 - 110	56	99
Benzo[b]fluoranthene	800	F1	817	1810	F1	ug/Kg	☼	124	12 - 118	63	99

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-54203-C-19-I MSD
Matrix: Solid
Analysis Batch: 194396

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 194053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[g,h,i]perylene	380		817	1230		ug/Kg	☼	104	10 - 117	42	99
Benzo[k]fluoranthene	370		817	1160		ug/Kg	☼	97	10 - 121	41	99
Chrysene	630		817	1550		ug/Kg	☼	112	10 - 125	55	99
Dibenz(a,h)anthracene	110		817	841		ug/Kg	☼	89	14 - 113	16	99
Fluoranthene	1100	F1	817	1960		ug/Kg	☼	110	10 - 110	64	99
Fluorene	26		817	650		ug/Kg	☼	76	23 - 110	10	99
Indeno[1,2,3-cd]pyrene	360		817	1190		ug/Kg	☼	102	10 - 114	38	99
Naphthalene	8.0	J	817	502		ug/Kg	☼	60	10 - 111	9	99
Phenanthrene	270		817	1110		ug/Kg	☼	103	10 - 166	40	99
Pyrene	960	F1	817	1950		ug/Kg	☼	122	10 - 147	65	99

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14 (Surr)	*83*		*36 - 110*
Phenol-d5 (Surr)	*65*		*26 - 110*
Nitrobenzene-d5 (Surr)	*57*		*20 - 110*
2-Fluorophenol (Surr)	*57*		*24 - 110*
2-Fluorobiphenyl (Surr)	*62*		*24 - 110*
2,4,6-Tribromophenol (Surr)	*47*		*10 - 110*

GC/MS Semi VOA

Prep Batch: 194053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54203-C-19-H MS	Matrix Spike	Total/NA	Solid	3540C	
240-54203-C-19-I MSD	Matrix Spike Duplicate	Total/NA	Solid	3540C	
240-54467-1	D-VS-F-4-1	Total/NA	Solid	3540C	
240-54467-2	D-VB-F-10-2	Total/NA	Solid	3540C	
240-54467-3	D-VB-F-13-2	Total/NA	Solid	3540C	
240-54467-4	D-VB-F-14-2	Total/NA	Solid	3540C	
240-54467-5	D-VB-F-15-2	Total/NA	Solid	3540C	
240-54467-6	D-VB-F-19-2	Total/NA	Solid	3540C	
LCS 240-194053/13-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-194053/12-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 194396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54203-C-19-H MS	Matrix Spike	Total/NA	Solid	8270D	194053
240-54203-C-19-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	194053
240-54467-1	D-VS-F-4-1	Total/NA	Solid	8270D	194053
240-54467-2	D-VB-F-10-2	Total/NA	Solid	8270D	194053
240-54467-3	D-VB-F-13-2	Total/NA	Solid	8270D	194053
240-54467-4	D-VB-F-14-2	Total/NA	Solid	8270D	194053
240-54467-5	D-VB-F-15-2	Total/NA	Solid	8270D	194053
240-54467-6	D-VB-F-19-2	Total/NA	Solid	8270D	194053
LCS 240-194053/13-A	Lab Control Sample	Total/NA	Solid	8270D	194053
MB 240-194053/12-A	Method Blank	Total/NA	Solid	8270D	194053

General Chemistry

Analysis Batch: 193882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-54467-1	D-VS-F-4-1	Total/NA	Solid	Moisture	
240-54467-2	D-VB-F-10-2	Total/NA	Solid	Moisture	
240-54467-2 DU	D-VB-F-10-2	Total/NA	Solid	Moisture	
240-54467-3	D-VB-F-13-2	Total/NA	Solid	Moisture	
240-54467-4	D-VB-F-14-2	Total/NA	Solid	Moisture	
240-54467-5	D-VB-F-15-2	Total/NA	Solid	Moisture	
240-54467-6	D-VB-F-19-2	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Client Sample ID: D-VS-F-4-1
Date Collected: 08/18/15 09:30
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-1
Matrix: Solid
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			194053	08/20/15 07:47	SDE	TAL CAN
Total/NA	Analysis	8270D		1	194396	08/22/15 18:16	MRU	TAL CAN
Total/NA	Analysis	Moisture		1	193882	08/19/15 08:38	DTN	TAL CAN

Client Sample ID: D-VB-F-10-2
Date Collected: 08/18/15 10:30
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-2
Matrix: Solid
Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			194053	08/20/15 07:47	SDE	TAL CAN
Total/NA	Analysis	8270D		1	194396	08/22/15 18:41	MRU	TAL CAN
Total/NA	Analysis	Moisture		1	193882	08/19/15 08:38	DTN	TAL CAN

Client Sample ID: D-VB-F-13-2
Date Collected: 08/18/15 10:33
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-3
Matrix: Solid
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			194053	08/20/15 07:47	SDE	TAL CAN
Total/NA	Analysis	8270D		6.667	194396	08/22/15 19:05	MRU	TAL CAN
Total/NA	Analysis	Moisture		1	193882	08/19/15 08:38	DTN	TAL CAN

Client Sample ID: D-VB-F-14-2
Date Collected: 08/18/15 10:35
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-4
Matrix: Solid
Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			194053	08/20/15 07:47	SDE	TAL CAN
Total/NA	Analysis	8270D		1	194396	08/22/15 17:01	MRU	TAL CAN
Total/NA	Analysis	Moisture		1	193882	08/19/15 16:03	DTN	TAL CAN

Client Sample ID: D-VB-F-15-2
Date Collected: 08/18/15 10:37
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-5
Matrix: Solid
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			194053	08/20/15 07:47	SDE	TAL CAN
Total/NA	Analysis	8270D		1	194396	08/22/15 17:51	MRU	TAL CAN
Total/NA	Analysis	Moisture		1	193882	08/19/15 16:03	DTN	TAL CAN

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Client Sample ID: D-VB-F-19-2
Date Collected: 08/18/15 10:40
Date Received: 08/19/15 09:20

Lab Sample ID: 240-54467-6
Matrix: Solid
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			194053	08/20/15 07:47	SDE	TAL CAN
Total/NA	Analysis	8270D		1	194396	08/22/15 17:26	MRU	TAL CAN
Total/NA	Analysis	Moisture		1	193882	08/19/15 16:03	DTN	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-15
Illinois	NELAP	5	200004	07-31-16
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-26-16
Kentucky (WW)	State Program	4	98016	12-31-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-16
New Jersey	NELAP	2	OH001	09-30-15 *
New York	NELAP	2	10975	03-31-16 *
Ohio VAP	State Program	5	CL0024	10-31-15
Oregon	NELAP	10	4062	02-23-16
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-14-3	08-31-15 *
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15
Washington	State Program	10	C971	01-12-16
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-15 *

* Certification renewal pending - certification considered valid.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: LMC MRC Block D Area F

TestAmerica Job ID: 240-54467-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-54467-1	D-VS-F-4-1	Solid	08/18/15 09:30	08/19/15 09:20
240-54467-2	D-VB-F-10-2	Solid	08/18/15 10:30	08/19/15 09:20
240-54467-3	D-VB-F-13-2	Solid	08/18/15 10:33	08/19/15 09:20
240-54467-4	D-VB-F-14-2	Solid	08/18/15 10:35	08/19/15 09:20
240-54467-5	D-VB-F-15-2	Solid	08/18/15 10:37	08/19/15 09:20
240-54467-6	D-VB-F-19-2	Solid	08/18/15 10:40	08/19/15 09:20

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD5 240-192437/2 IC Client Sample ID:

Date Analyzed: 08/08/15 15:32 Lab File ID: 50808002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/08/15 16:08
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/08/15 16:08
Pyridine	3.64	Poor chromatography	ulmanm	08/08/15 16:08
Benzoic acid	7.19	Poor chromatography	ulmanm	08/08/15 16:06

Lab Sample ID: STD4 240-192437/3 IC Client Sample ID:

Date Analyzed: 08/08/15 15:57 Lab File ID: 50808003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:14
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:14
Pyridine	3.63	Poor chromatography	ulmanm	08/09/15 16:14
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:14

Lab Sample ID: STD3 240-192437/4 IC Client Sample ID:

Date Analyzed: 08/08/15 16:23 Lab File ID: 50808004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:17
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:17
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:17
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:17

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD2 240-192437/5 IC Client Sample ID:

Date Analyzed: 08/08/15 16:48 Lab File ID: 50808005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:22
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:22
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:22
Di-n-octyl phthalate	13.10	Poor chromatography	ulmanm	08/09/15 16:22
Benzo[g,h,i]perylene	16.86	Poor chromatography	ulmanm	08/09/15 16:22

Lab Sample ID: STD1 240-192437/6 IC Client Sample ID:

Date Analyzed: 08/08/15 17:14 Lab File ID: 50808006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibenz(a,h)anthracene	16.27	Poor chromatography	ulmanm	08/09/15 16:24
Indeno[1,2,3-cd]pyrene	16.27	Poor chromatography	ulmanm	08/09/15 16:24

Lab Sample ID: STD9 240-192437/7 IC Client Sample ID:

Date Analyzed: 08/08/15 17:39 Lab File ID: 50808007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:30
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:30
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:30
Caprolactam	7.83	Poor chromatography	ulmanm	08/09/15 16:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD8 240-192437/8 IC Client Sample ID:

Date Analyzed: 08/08/15 18:05 Lab File ID: 50808008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:33
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:33
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:33
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:33

Lab Sample ID: STD7 240-192437/9 IC Client Sample ID:

Date Analyzed: 08/08/15 18:31 Lab File ID: 50808009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:36
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:36
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:36
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:36

Lab Sample ID: STD6 240-192437/10 ICIS Client Sample ID:

Date Analyzed: 08/08/15 18:56 Lab File ID: 50808010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:41
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:41
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:41
Benzoic acid	7.21	Poor chromatography	ulmanm	08/09/15 16:41
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: ICV 240-192437/11 Client Sample ID:

Date Analyzed: 08/08/15 19:22 Lab File ID: 50808011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:42
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:48
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:42
4-Chloroaniline	7.53	Poor chromatography	ulmanm	08/09/15 16:48
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:48

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 194396

Lab Sample ID: CCV 240-194396/2 CCVIS Client Sample ID:

Date Analyzed: 08/22/15 09:56 Lab File ID: 50822002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.43	Poor chromatography	ulmanm	08/22/15 10:34
Benzoic acid	7.08	Poor chromatography	ulmanm	08/22/15 10:34

Lab Sample ID: 240-54467-4 Client Sample ID: D-VB-F-14-2

Date Analyzed: 08/22/15 17:01 Lab File ID: 50822018.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	15.74	Poor chromatography	ulmanm	08/24/15 08:44
Benzo[g,h,i]perylene	16.28	Poor chromatography	ulmanm	08/24/15 08:44

Lab Sample ID: 240-54467-6 Client Sample ID: D-VB-F-19-2

Date Analyzed: 08/22/15 17:26 Lab File ID: 50822019.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.50	Poor chromatography	ulmanm	08/24/15 08:47
Benzo[g,h,i]perylene	16.30	Poor chromatography	ulmanm	08/24/15 08:47

Lab Sample ID: 240-54467-5 Client Sample ID: D-VB-F-15-2

Date Analyzed: 08/22/15 17:51 Lab File ID: 50822020.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.48	Poor chromatography	ulmanm	08/24/15 08:48
Benzo[k]fluoranthene	13.50	Poor chromatography	ulmanm	08/24/15 08:48
Dibenz(a,h)anthracene	15.76	Poor chromatography	ulmanm	08/24/15 08:48

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 194396

Lab Sample ID: 240-54467-1 Client Sample ID: D-VS-F-4-1

Date Analyzed: 08/22/15 18:16 Lab File ID: 50822021.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.48	Poor chromatography	ulmanm	08/24/15 08:50
Benzo[k]fluoranthene	13.50	Poor chromatography	ulmanm	08/24/15 08:50

Lab Sample ID: 240-54467-2 Client Sample ID: D-VB-F-10-2

Date Analyzed: 08/22/15 18:41 Lab File ID: 50822022.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.50	Poor chromatography	ulmanm	08/24/15 08:51

Lab Sample ID: 240-54467-3 Client Sample ID: D-VB-F-13-2

Date Analyzed: 08/22/15 19:05 Lab File ID: 50822023.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.50	Poor chromatography	ulmanm	08/24/15 08:53

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00028	08/31/16	08/17/15	MEOH, Lot 147358	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00048	08/31/16	08/03/15	MEOH, Lot 147358	200 mL	EXLIST1_S1_00003	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.EXLIST1_S1_00003	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

Reagent

EXLIST1_S10_00001

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

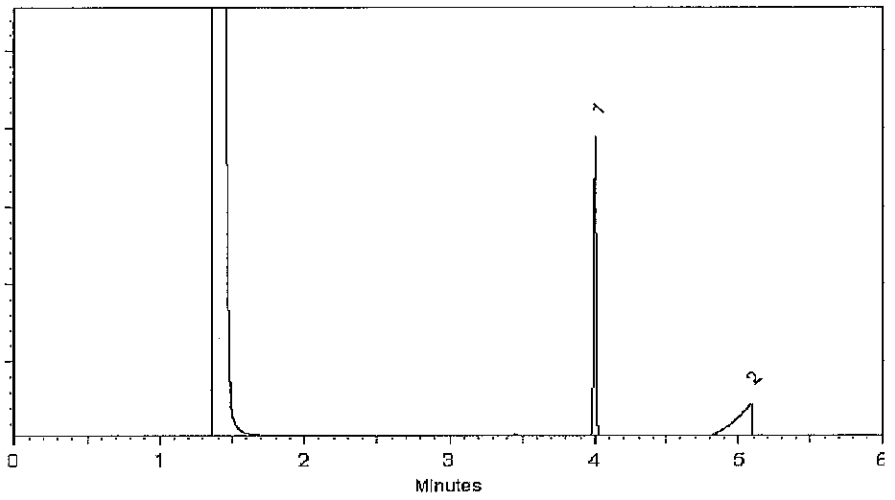
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham

Cheryl Graham - Mix Technician

Date Mixed: 10-Feb-2015 **Balance:** 1128360905

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 12-Feb-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99% (Lot MKBP3098V)	2,001.4 µg/mL	+/- 11.6363 +/- 22.5687 +/- 25.9700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99% (Lot MKBL6689V)	2,000.1 µg/mL	+/- 11.6288 +/- 22.5540 +/- 25.9531	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Reagent

EXLIST1_S11_00001

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

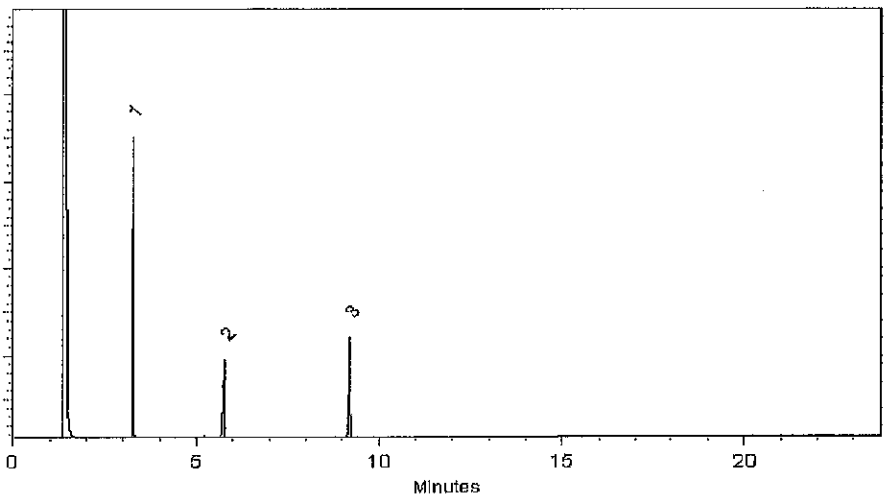
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 10-Feb-2015 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst

Date Passed: 12-Feb-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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Catalog No. : 569732 **Lot No.:** A0108989

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzaldehyde **CAS #** 100-52-7 **Purity** 99%	(Lot SHBD3510V)	2,011.6 µg/mL	+/- 11.6956 +/- 64.4832 +/- 74.9592	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	epsilon-Caprolactam **CAS #** 105-60-2 **Purity** 99%	(Lot I16X016)	2,009.2 µg/mL	+/- 11.6817 +/- 64.4062 +/- 74.8697	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Atrazine **CAS #** 1912-24-9 **Purity** 98%	(Lot TZ8ED)	2,001.6 µg/mL	+/- 11.6372 +/- 64.1611 +/- 74.5847	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Reagent

---

exLIST1_S9_00002

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

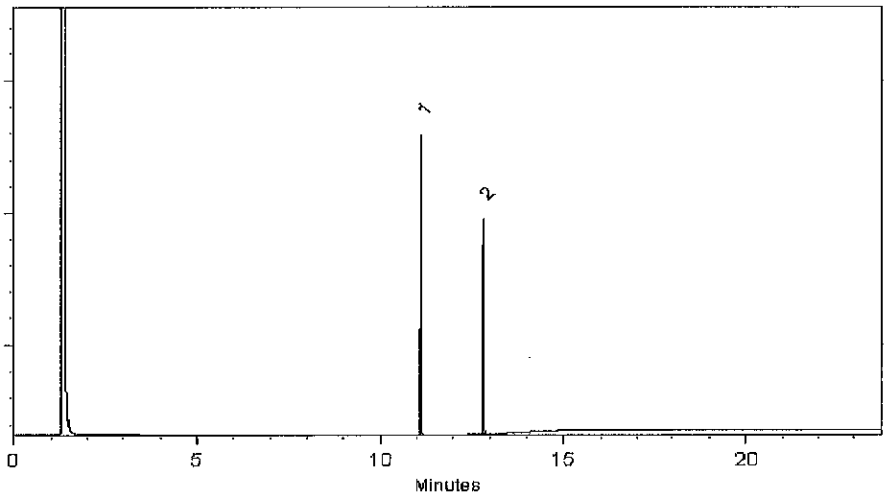
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kendra Swope - Mix Technician

Date Mixed: 09-Apr-2015 **Balance:** 1122030677

Jodi E. Breon - QA Analyst

Date Passed: 13-Apr-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0110231

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : October 31, 2016 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine **CAS #** 92-87-5 **Purity** 99% (Lot 150130JLM)	2,004.2 µg/mL	+/- 11.6526 +/- 21.9434 +/- 37.2196	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	3,3'-Dichlorobenzidine **CAS #** 91-94-1 **Purity** 99% (Lot 141205JLM)	2,000.8 µg/mL	+/- 11.6328 +/- 21.9062 +/- 37.1564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Reagent

SMIS R_00005

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 **Lot No.:** A0101020

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2019 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4	2,005.4 µg/mL	+/- 11.6596	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/- 89.1010	µg/mL	Unstressed
	Purity 99%		+/- 97.8939	µg/mL	Stressed
2	Naphthalene-d8	2,005.8 µg/mL	+/- 11.6619	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot PR-20449)		+/- 89.1187	µg/mL	Unstressed
	Purity 99%		+/- 97.9134	µg/mL	Stressed
3	Acenaphthene-d10	1,998.2 µg/mL	+/- 11.6177	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-21070)		+/- 88.7811	µg/mL	Unstressed
	Purity 97%		+/- 97.5424	µg/mL	Stressed
4	Phenanthrene-d10	2,001.2 µg/mL	+/- 11.6351	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-23065)		+/- 88.9144	µg/mL	Unstressed
	Purity 99%		+/- 97.6889	µg/mL	Stressed
5	Chrysene-d12	1,999.6 µg/mL	+/- 11.6258	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-24875)		+/- 88.8429	µg/mL	Unstressed
	Purity 98%		+/- 97.6104	µg/mL	Stressed
6	Perylene-d12	2,002.6 µg/mL	+/- 11.6433	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-24113)		+/- 88.9766	µg/mL	Unstressed
	Purity 99%		+/- 97.7572	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

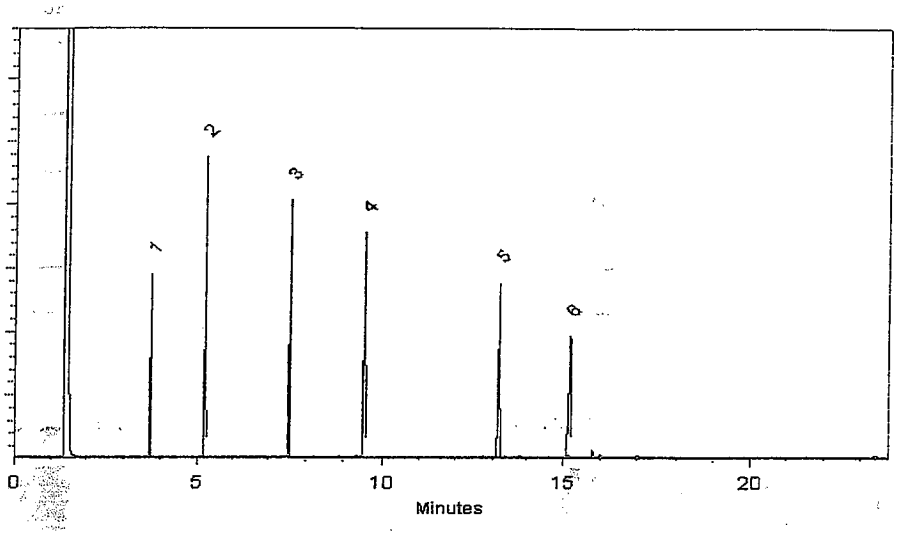
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen to guarantee product quality. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kendra Swope - Mix Technician

Date Mixed: 30-Jan-2014 **Balance:** 1128342313

Jennifer L. Pollino - QC Analyst

Date Passed: 03-Feb-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\,stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\,stability} + U^2_{shipping\,stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

SMLIST1 PAH_00004

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0107399

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBD8744V)	1,004.4 µg/mL	+/- 5.8397 µg/mL +/- 10.9969 µg/mL +/- 18.6525 µg/mL	Gravimetric Unstressed Stressed
2	Pyridine **CAS #** 110-86-1 **Purity** 99%	(Lot SHBC7174V)	1,001.0 µg/mL	+/- 5.8199 µg/mL +/- 10.9596 µg/mL +/- 18.5894 µg/mL	Gravimetric Unstressed Stressed
3	N-Nitrosodimethylamine **CAS #** 62-75-9 **Purity** 99%	(Lot 3213100)	1,000.2 µg/mL	+/- 5.8152 µg/mL +/- 10.9509 µg/mL +/- 18.5745 µg/mL	Gravimetric Unstressed Stressed
4	Aniline **CAS #** 62-53-3 **Purity** 99%	(Lot K22Z462)	1,002.3 µg/mL	+/- 5.8275 µg/mL +/- 10.9739 µg/mL +/- 18.6135 µg/mL	Gravimetric Unstressed Stressed
5	Bis(2-chloroethyl)ether **CAS #** 111-44-4 **Purity** 99%	(Lot 45296HKV)	1,001.4 µg/mL	+/- 5.8222 µg/mL +/- 10.9640 µg/mL +/- 18.5968 µg/mL	Gravimetric Unstressed Stressed
6	2-Chlorophenol **CAS #** 95-57-8 **Purity** 99%	(Lot MKBD3900V)	1,000.8 µg/mL	+/- 5.8187 µg/mL +/- 10.9575 µg/mL +/- 18.5856 µg/mL	Gravimetric Unstressed Stressed
7	Phenol **CAS #** 108-95-2 **Purity** 99%	(Lot SHBC6998V)	1,006.9 µg/mL	+/- 5.8542 µg/mL +/- 11.0242 µg/mL +/- 18.6989 µg/mL	Gravimetric Unstressed Stressed

8	n-Decane (C10)		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,005.3	µg/mL	+/-	5.8449	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBL3891V)			+/-	11.0067	µg/mL	Unstressed
	Purity 99%				+/-	18.6692	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,006.5	µg/mL	+/-	5.8519	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot 68996CMV)			+/-	11.0199	µg/mL	Unstressed
	Purity 99%				+/-	18.6915	µg/mL	Stressed
12	Benzyl alcohol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-EAW-18-3)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
15	Hexachloroethane		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
16	Acetophenone		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,003.9	µg/mL	+/-	5.8368	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	10.9914	µg/mL	Unstressed
	Purity 99%				+/-	18.6432	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		500.4	µg/mL	+/-	2.9161	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.4823	µg/mL	Unstressed
	Purity 99%				+/-	9.2949	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		500.2	µg/mL	+/-	2.9149	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4801	µg/mL	Unstressed
	Purity 99%				+/-	9.2912	µg/mL	Stressed
20	Nitrobenzene		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot 65096APV)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed
21	Isophorone		999.3	µg/mL	+/-	5.8100	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot 06705DE)			+/-	10.9410	µg/mL	Unstressed
	Purity 97%				+/-	18.5577	µg/mL	Stressed
22	2-Nitrophenol		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
23	2,4-Dimethylphenol		1,003.2	µg/mL	+/-	5.8327	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9837	µg/mL	Unstressed
	Purity 99%				+/-	18.6302	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,004.5	µg/mL	+/-	5.8402	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 317200)			+/-	10.9980	µg/mL	Unstressed
	Purity 99%				+/-	18.6544	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		1,000.6	µg/mL	+/-	5.8176	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot 26896BM)			+/-	10.9553	µg/mL	Unstressed
	Purity 99%				+/-	18.5819	µg/mL	Stressed
27	Naphthalene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
29	4-Chloroaniline		1,000.3	µg/mL	+/-	5.8157	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9518	µg/mL	Unstressed
	Purity 98%				+/-	18.5761	µg/mL	Stressed
30	Hexachlorobutadiene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot K22W009)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
31	2-Methylnaphthalene		998.6	µg/mL	+/-	5.8059	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9333	µg/mL	Unstressed
	Purity 96%				+/-	18.5446	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
33	1-Methylnaphthalene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,002.4	µg/mL	+/-	5.8280	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3140300)			+/-	10.9750	µg/mL	Unstressed
	Purity 99%				+/-	18.6154	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBH7393V)			+/-	10.9640	µg/mL	Unstressed
	Purity 99%				+/-	18.5968	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
38	2-Chloronaphthalene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot FIJ01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
39	Biphenyl		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed

40	2-Nitroaniline		1,004.6	µg/mL	+/-	5.8408	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	10.9991	µg/mL	Unstressed
	Purity 99%				+/-	18.6562	µg/mL	Stressed
41	Acenaphthylene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,006.4	µg/mL	+/-	5.8513	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	11.0188	µg/mL	Unstressed
	Purity 99%				+/-	18.6896	µg/mL	Stressed
43	Dimethylphthalate		1,001.0	µg/mL	+/-	5.8199	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9596	µg/mL	Unstressed
	Purity 99%				+/-	18.5894	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
45	Acenaphthene		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
46	2,4-Dinitrophenol		2,008.7	µg/mL	+/-	11.6788	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot MKBP5833V)			+/-	21.9927	µg/mL	Unstressed
	Purity 99%				+/-	37.3031	µg/mL	Stressed
47	Dibenzofuran		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBK2375V)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
48	3-Nitroaniline		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
50	4-Nitrophenol		2,001.0	µg/mL	+/-	11.6340	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9083	µg/mL	Unstressed
	Purity 99%				+/-	37.1601	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot FN10221307)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
52	Fluorene		1,000.5	µg/mL	+/-	5.8169	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9540	µg/mL	Unstressed
	Purity 98%				+/-	18.5797	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBL1347V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
54	n-Hexadecane (C16)		1,002.2	µg/mL	+/-	5.8269	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBD4570V)			+/-	10.9728	µg/mL	Unstressed
	Purity 99%				+/-	18.6116	µg/mL	Stressed
55	Diethylphthalate		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed

56	Azobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
57	Diphenylamine		1,713.4	µg/mL	+/-	9.9619	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot 07525MF)			+/-	18.7595	µg/mL	Unstressed
	Purity 99%				+/-	31.8192	µg/mL	Stressed
58	4-Nitroaniline		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,002.0	µg/mL	+/-	11.6398	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC06195V)			+/-	21.9193	µg/mL	Unstressed
	Purity 99%				+/-	37.1787	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
61	Hexachlorobenzene		1,002.1	µg/mL	+/-	5.8260	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LC04221V)			+/-	10.9711	µg/mL	Unstressed
	Purity 98%				+/-	18.6089	µg/mL	Stressed
62	Pentachlorophenol		2,000.3	µg/mL	+/-	11.6299	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 140626JLM)			+/-	21.9007	µg/mL	Unstressed
	Purity 99%				+/-	37.1471	µg/mL	Stressed
63	Phenanthrene		999.0	µg/mL	+/-	5.8083	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBL6906V)			+/-	10.9379	µg/mL	Unstressed
	Purity 98%				+/-	18.5524	µg/mL	Stressed
64	n-Octadecane (C18)		1,006.5	µg/mL	+/-	5.8519	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0199	µg/mL	Unstressed
	Purity 99%				+/-	18.6915	µg/mL	Stressed
65	Anthracene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
66	Carbazole		1,000.1	µg/mL	+/-	5.8146	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9497	µg/mL	Unstressed
	Purity 98%				+/-	18.5725	µg/mL	Stressed
67	Di-n-butylphthalate		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
68	Fluoranthene		999.7	µg/mL	+/-	5.8123	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9454	µg/mL	Unstressed
	Purity 98%				+/-	18.5652	µg/mL	Stressed
69	Pyrene		999.1	µg/mL	+/-	5.8089	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9390	µg/mL	Unstressed
	Purity 98%				+/-	18.5543	µg/mL	Stressed
70	Benzyl butyl phthalate		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9618	µg/mL	Unstressed
	Purity 99%				+/-	18.5931	µg/mL	Stressed
71	Benz(a)anthracene		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9640	µg/mL	Unstressed
	Purity 99%				+/-	18.5968	µg/mL	Stressed

72	Chrysene		1,006.5	µg/mL	+/-	5.8519	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot ER120810-02)			+/-	11.0199	µg/mL	Unstressed
	Purity 99%				+/-	18.6915	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
74	Di-n-octyl phthalate		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3128600)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot ER041513-01)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
77	Benzo(a)pyrene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,000.6	µg/mL	+/-	5.8176	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9553	µg/mL	Unstressed
	Purity 99%				+/-	18.5819	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,004.4	µg/mL	+/-	5.8397	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	10.9969	µg/mL	Unstressed
	Purity 99%				+/-	18.6525	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL. N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine. N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

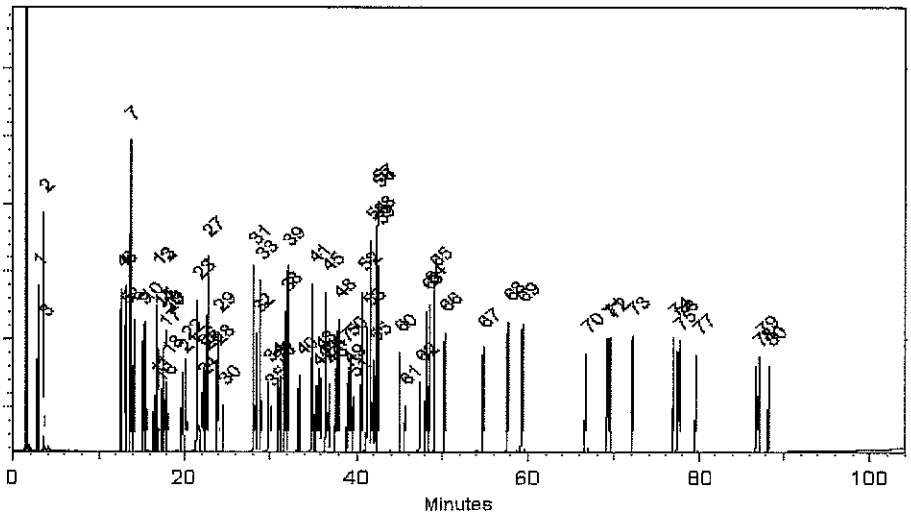
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 24-Nov-2014 **Balance:** 1128360905

Jodi E. Breon - QA Analyst

Date Passed: 05-Dec-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

SMLIST1 S1_00005

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0107399

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBD8744V)	1,004.4 µg/mL	+/- 5.8397 µg/mL +/- 10.9969 µg/mL +/- 18.6525 µg/mL	Gravimetric Unstressed Stressed
2	Pyridine **CAS #** 110-86-1 **Purity** 99%	(Lot SHBC7174V)	1,001.0 µg/mL	+/- 5.8199 µg/mL +/- 10.9596 µg/mL +/- 18.5894 µg/mL	Gravimetric Unstressed Stressed
3	N-Nitrosodimethylamine **CAS #** 62-75-9 **Purity** 99%	(Lot 3213100)	1,000.2 µg/mL	+/- 5.8152 µg/mL +/- 10.9509 µg/mL +/- 18.5745 µg/mL	Gravimetric Unstressed Stressed
4	Aniline **CAS #** 62-53-3 **Purity** 99%	(Lot K22Z462)	1,002.3 µg/mL	+/- 5.8275 µg/mL +/- 10.9739 µg/mL +/- 18.6135 µg/mL	Gravimetric Unstressed Stressed
5	Bis(2-chloroethyl)ether **CAS #** 111-44-4 **Purity** 99%	(Lot 45296HKV)	1,001.4 µg/mL	+/- 5.8222 µg/mL +/- 10.9640 µg/mL +/- 18.5968 µg/mL	Gravimetric Unstressed Stressed
6	2-Chlorophenol **CAS #** 95-57-8 **Purity** 99%	(Lot MKBD3900V)	1,000.8 µg/mL	+/- 5.8187 µg/mL +/- 10.9575 µg/mL +/- 18.5856 µg/mL	Gravimetric Unstressed Stressed
7	Phenol **CAS #** 108-95-2 **Purity** 99%	(Lot SHBC6998V)	1,006.9 µg/mL	+/- 5.8542 µg/mL +/- 11.0242 µg/mL +/- 18.6989 µg/mL	Gravimetric Unstressed Stressed

8	n-Decane (C10)		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,005.3	µg/mL	+/-	5.8449	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBL3891V)			+/-	11.0067	µg/mL	Unstressed
	Purity 99%				+/-	18.6692	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,006.5	µg/mL	+/-	5.8519	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot 68996CMV)			+/-	11.0199	µg/mL	Unstressed
	Purity 99%				+/-	18.6915	µg/mL	Stressed
12	Benzyl alcohol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-EAW-18-3)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
15	Hexachloroethane		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
16	Acetophenone		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,003.9	µg/mL	+/-	5.8368	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	10.9914	µg/mL	Unstressed
	Purity 99%				+/-	18.6432	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		500.4	µg/mL	+/-	2.9161	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.4823	µg/mL	Unstressed
	Purity 99%				+/-	9.2949	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		500.2	µg/mL	+/-	2.9149	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4801	µg/mL	Unstressed
	Purity 99%				+/-	9.2912	µg/mL	Stressed
20	Nitrobenzene		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot 65096APV)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed
21	Isophorone		999.3	µg/mL	+/-	5.8100	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot 06705DE)			+/-	10.9410	µg/mL	Unstressed
	Purity 97%				+/-	18.5577	µg/mL	Stressed
22	2-Nitrophenol		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
23	2,4-Dimethylphenol		1,003.2	µg/mL	+/-	5.8327	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9837	µg/mL	Unstressed
	Purity 99%				+/-	18.6302	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,004.5	µg/mL	+/-	5.8402	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 317200)			+/-	10.9980	µg/mL	Unstressed
	Purity 99%				+/-	18.6544	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		1,000.6	µg/mL	+/-	5.8176	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot 26896BM)			+/-	10.9553	µg/mL	Unstressed
	Purity 99%				+/-	18.5819	µg/mL	Stressed
27	Naphthalene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
29	4-Chloroaniline		1,000.3	µg/mL	+/-	5.8157	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9518	µg/mL	Unstressed
	Purity 98%				+/-	18.5761	µg/mL	Stressed
30	Hexachlorobutadiene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot K22W009)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
31	2-Methylnaphthalene		998.6	µg/mL	+/-	5.8059	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9333	µg/mL	Unstressed
	Purity 96%				+/-	18.5446	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
33	1-Methylnaphthalene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,002.4	µg/mL	+/-	5.8280	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3140300)			+/-	10.9750	µg/mL	Unstressed
	Purity 99%				+/-	18.6154	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBH7393V)			+/-	10.9640	µg/mL	Unstressed
	Purity 99%				+/-	18.5968	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
38	2-Chloronaphthalene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot FIJ01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
39	Biphenyl		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed

40	2-Nitroaniline		1,004.6	µg/mL	+/-	5.8408	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	10.9991	µg/mL	Unstressed
	Purity 99%				+/-	18.6562	µg/mL	Stressed
41	Acenaphthylene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,006.4	µg/mL	+/-	5.8513	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	11.0188	µg/mL	Unstressed
	Purity 99%				+/-	18.6896	µg/mL	Stressed
43	Dimethylphthalate		1,001.0	µg/mL	+/-	5.8199	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9596	µg/mL	Unstressed
	Purity 99%				+/-	18.5894	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
45	Acenaphthene		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
46	2,4-Dinitrophenol		2,008.7	µg/mL	+/-	11.6788	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot MKBP5833V)			+/-	21.9927	µg/mL	Unstressed
	Purity 99%				+/-	37.3031	µg/mL	Stressed
47	Dibenzofuran		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBK2375V)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
48	3-Nitroaniline		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
50	4-Nitrophenol		2,001.0	µg/mL	+/-	11.6340	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9083	µg/mL	Unstressed
	Purity 99%				+/-	37.1601	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot FN10221307)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
52	Fluorene		1,000.5	µg/mL	+/-	5.8169	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9540	µg/mL	Unstressed
	Purity 98%				+/-	18.5797	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBL1347V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
54	n-Hexadecane (C16)		1,002.2	µg/mL	+/-	5.8269	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBD4570V)			+/-	10.9728	µg/mL	Unstressed
	Purity 99%				+/-	18.6116	µg/mL	Stressed
55	Diethylphthalate		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed

56	Azobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
57	Diphenylamine		1,713.4	µg/mL	+/-	9.9619	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot 07525MF)			+/-	18.7595	µg/mL	Unstressed
	Purity 99%				+/-	31.8192	µg/mL	Stressed
58	4-Nitroaniline		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,002.0	µg/mL	+/-	11.6398	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC06195V)			+/-	21.9193	µg/mL	Unstressed
	Purity 99%				+/-	37.1787	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
61	Hexachlorobenzene		1,002.1	µg/mL	+/-	5.8260	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LC04221V)			+/-	10.9711	µg/mL	Unstressed
	Purity 98%				+/-	18.6089	µg/mL	Stressed
62	Pentachlorophenol		2,000.3	µg/mL	+/-	11.6299	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 140626JLM)			+/-	21.9007	µg/mL	Unstressed
	Purity 99%				+/-	37.1471	µg/mL	Stressed
63	Phenanthrene		999.0	µg/mL	+/-	5.8083	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBL6906V)			+/-	10.9379	µg/mL	Unstressed
	Purity 98%				+/-	18.5524	µg/mL	Stressed
64	n-Octadecane (C18)		1,006.5	µg/mL	+/-	5.8519	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0199	µg/mL	Unstressed
	Purity 99%				+/-	18.6915	µg/mL	Stressed
65	Anthracene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
66	Carbazole		1,000.1	µg/mL	+/-	5.8146	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9497	µg/mL	Unstressed
	Purity 98%				+/-	18.5725	µg/mL	Stressed
67	Di-n-butylphthalate		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed
68	Fluoranthene		999.7	µg/mL	+/-	5.8123	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9454	µg/mL	Unstressed
	Purity 98%				+/-	18.5652	µg/mL	Stressed
69	Pyrene		999.1	µg/mL	+/-	5.8089	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9390	µg/mL	Unstressed
	Purity 98%				+/-	18.5543	µg/mL	Stressed
70	Benzyl butyl phthalate		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9618	µg/mL	Unstressed
	Purity 99%				+/-	18.5931	µg/mL	Stressed
71	Benz(a)anthracene		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9640	µg/mL	Unstressed
	Purity 99%				+/-	18.5968	µg/mL	Stressed

72	Chrysene		1,006.5	µg/mL	+/-	5.8519	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot ER120810-02)			+/-	11.0199	µg/mL	Unstressed
	Purity 99%				+/-	18.6915	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
74	Di-n-octyl phthalate		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3128600)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot ER041513-01)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
77	Benzo(a)pyrene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,000.6	µg/mL	+/-	5.8176	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9553	µg/mL	Unstressed
	Purity 99%				+/-	18.5819	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,004.4	µg/mL	+/-	5.8397	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	10.9969	µg/mL	Unstressed
	Purity 99%				+/-	18.6525	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL. N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine. N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

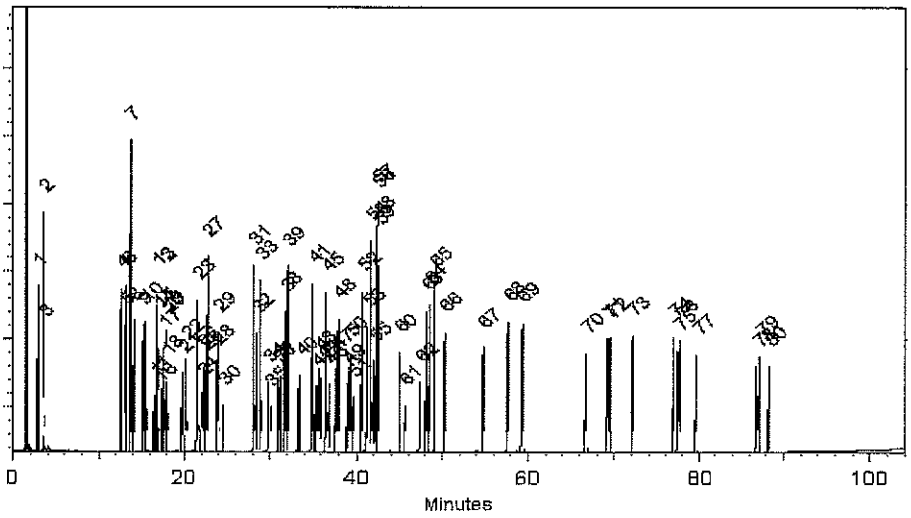
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 24-Nov-2014 **Balance:** 1128360905

Jodi E. Breon - QA Analyst

Date Passed: 05-Dec-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

SMLIST1 S10_00001

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0107943

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene		2,001.4 µg/mL	+/- 11.6363	µg/mL	Gravimetric
	CAS # 95-13-6	(Lot MKBP3098V)		+/- 22.5687	µg/mL	Unstressed
	Purity 99%			+/- 25.9700	µg/mL	Stressed
2	Benzoic acid		2,005.8 µg/mL	+/- 11.6619	µg/mL	Gravimetric
	CAS # 65-85-0	(Lot MKBL6689V)		+/- 22.6183	µg/mL	Unstressed
	Purity 99%			+/- 26.0271	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

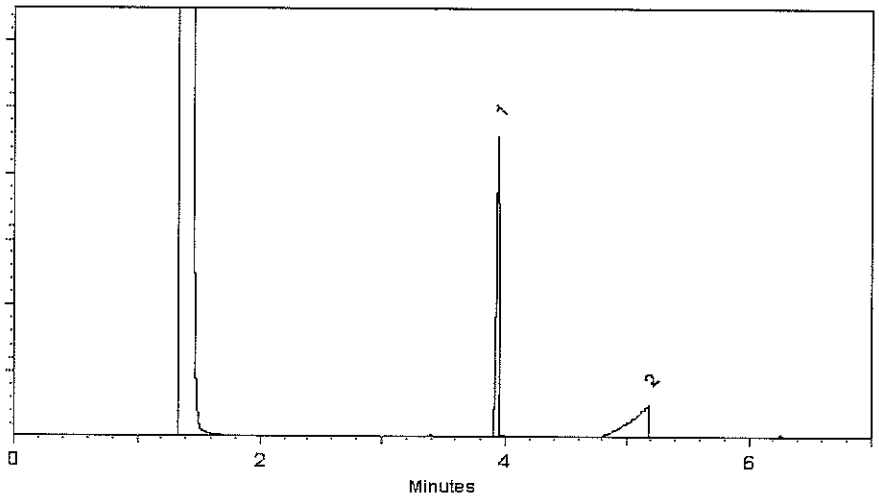
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 22-Dec-2014 **Balance:** 1128360905

Tyler Brown - QA Analyst

Date Passed: 29-Dec-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732 **Lot No.:** A0108035

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde **CAS #** 100-52-7 (Lot SHBD3510V) **Purity** 99%	2,000.6 µg/mL	+/- 11.6317 µg/mL +/- 64.1305 µg/mL +/- 74.5493 µg/mL	Gravimetric Unstressed Stressed
2	epsilon-Caprolactam **CAS #** 105-60-2 (Lot I16X016) **Purity** 99%	2,001.2 µg/mL	+/- 11.6351 µg/mL +/- 64.1498 µg/mL +/- 74.5716 µg/mL	Gravimetric Unstressed Stressed
3	Atrazine **CAS #** 1912-24-9 (Lot TZ8ED) **Purity** 98%	2,004.3 µg/mL	+/- 11.6532 µg/mL +/- 64.2490 µg/mL +/- 74.6870 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

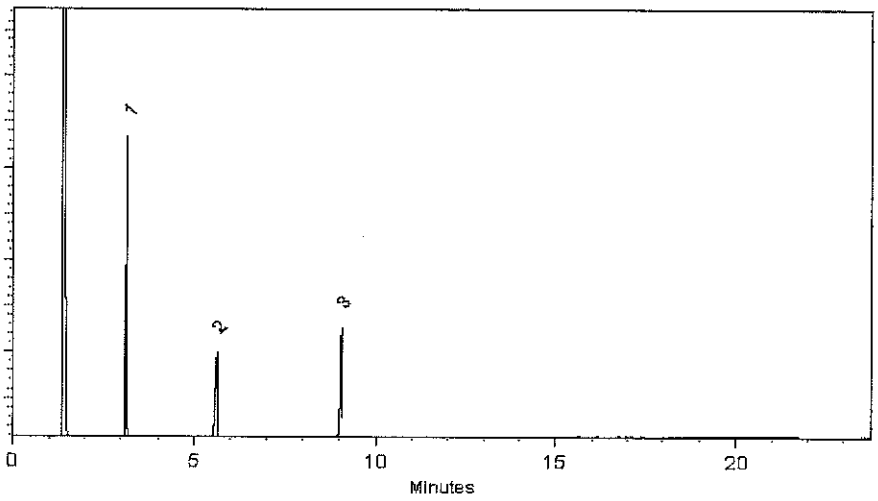
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 30-Dec-2014 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst

Date Passed: 02-Jan-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0108174

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2016 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine		2,008.4	µg/mL	+/- 11.6770	µg/mL	Gravimetric
	CAS # 92-87-5	(Lot 141208JLM)			+/- 21.9894	µg/mL	Unstressed
	Purity 99%				+/- 37.2976	µg/mL	Stressed
2	3,3'-Dichlorobenzidine		2,003.0	µg/mL	+/- 11.6456	µg/mL	Gravimetric
	CAS # 91-94-1	(Lot 141205JLM)			+/- 21.9302	µg/mL	Unstressed
	Purity 99%				+/- 37.1973	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

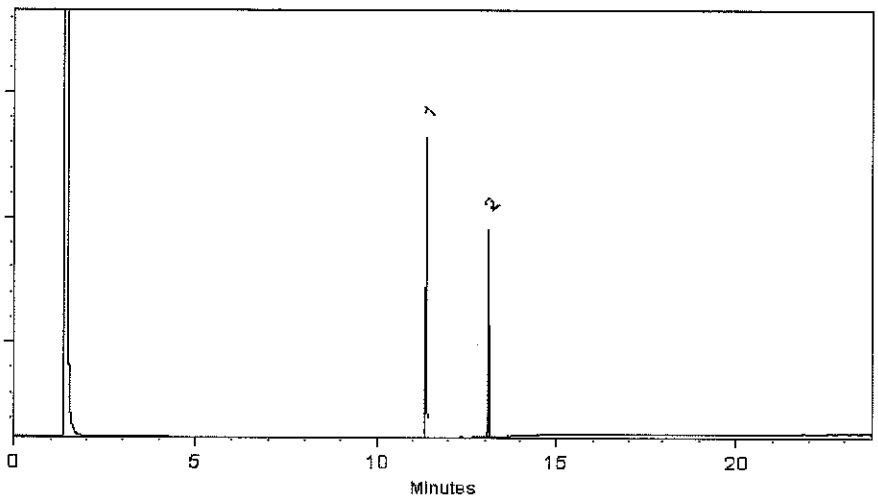
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Jennifer L. Pollino - QC Analyst

Date Mixed: 07-Jan-2015 **Balance:** 1122030677

Date Passed: 13-Jan-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729.SEC **Lot No.:** A0107697

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,005.6 µg/mL	+/- 5.8602 µg/mL	Gravimetric
	CAS # 123-91-1.SEC (Lot CHA4A)		+/- 11.0172 µg/mL	Unstressed
	Purity 99%		+/- 18.6790 µg/mL	Stressed
2	Pyridine	1,000.2 µg/mL	+/- 5.8287 µg/mL	Gravimetric
	CAS # 110-86-1.SEC (Lot QN8DK)		+/- 10.9580 µg/mL	Unstressed
	Purity 99%		+/- 18.5787 µg/mL	Stressed
3	N-Nitrosodimethylamine	1,004.1 µg/mL	+/- 5.8515 µg/mL	Gravimetric
	CAS # 62-75-9.SEC (Lot 41B67)		+/- 11.0008 µg/mL	Unstressed
	Purity 98%		+/- 18.6513 µg/mL	Stressed
4	Aniline	1,002.8 µg/mL	+/- 5.8438 µg/mL	Gravimetric
	CAS # 62-53-3.SEC (Lot ZCD3N)		+/- 10.9865 µg/mL	Unstressed
	Purity 99%		+/- 18.6270 µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,002.4 µg/mL	+/- 5.8415 µg/mL	Gravimetric
	CAS # 111-44-4.SEC (Lot FA010143)		+/- 10.9821 µg/mL	Unstressed
	Purity 99%		+/- 18.6196 µg/mL	Stressed
6	2-Chlorophenol	1,006.0 µg/mL	+/- 5.8625 µg/mL	Gravimetric
	CAS # 95-57-8.SEC (Lot GJ01)		+/- 11.0216 µg/mL	Unstressed
	Purity 99%		+/- 18.6864 µg/mL	Stressed
7	Phenol	1,004.2 µg/mL	+/- 5.8520 µg/mL	Gravimetric
	CAS # 108-95-2.SEC (Lot EDPYN)		+/- 11.0019 µg/mL	Unstressed
	Purity 99%		+/- 18.6530 µg/mL	Stressed

8	n-Decane (C10)		1,000.2	µg/mL	+/-	5.8287	µg/mL	Gravimetric
	CAS # 124-18-5.SEC	(Lot UCVNN)			+/-	10.9580	µg/mL	Unstressed
	Purity 99%				+/-	18.5787	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,005.2	µg/mL	+/-	5.8578	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot YWKDC-MK)			+/-	11.0128	µg/mL	Unstressed
	Purity 99%				+/-	18.6716	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.2	µg/mL	+/-	5.8520	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD-KA)			+/-	11.0019	µg/mL	Unstressed
	Purity 99%				+/-	18.6530	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,003.8	µg/mL	+/-	5.8497	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot 4NRGF-OT)			+/-	10.9975	µg/mL	Unstressed
	Purity 99%				+/-	18.6456	µg/mL	Stressed
12	Benzyl alcohol		1,004.8	µg/mL	+/-	5.8555	µg/mL	Gravimetric
	CAS # 100-51-6.SEC	(Lot QZBUO)			+/-	11.0084	µg/mL	Unstressed
	Purity 99%				+/-	18.6642	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,002.2	µg/mL	+/-	5.8403	µg/mL	Gravimetric
	CAS # 108-60-1 *	(Lot 2-EAW-18-3)			+/-	10.9799	µg/mL	Unstressed
	Purity 99%				+/-	18.6159	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,002.9	µg/mL	+/-	5.8446	µg/mL	Gravimetric
	CAS # 95-48-7.SEC	(Lot NC7HL)			+/-	10.9880	µg/mL	Unstressed
	Purity 98%				+/-	18.6295	µg/mL	Stressed
15	Hexachloroethane		1,005.1	µg/mL	+/-	5.8572	µg/mL	Gravimetric
	CAS # 67-72-1.SEC	(Lot 10173016)			+/-	11.0116	µg/mL	Unstressed
	Purity 98%				+/-	18.6695	µg/mL	Stressed
16	Acetophenone		1,004.4	µg/mL	+/-	5.8532	µg/mL	Gravimetric
	CAS # 98-86-2.SEC	(Lot NSGTI)			+/-	11.0040	µg/mL	Unstressed
	Purity 99%				+/-	18.6567	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,001.2	µg/mL	+/-	5.8345	µg/mL	Gravimetric
	CAS # 621-64-7.SEC	(Lot 1528900)			+/-	10.9690	µg/mL	Unstressed
	Purity 99%				+/-	18.5973	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		500.8	µg/mL	+/-	2.9184	µg/mL	Gravimetric
	CAS # 106-44-5.SEC	(Lot 65S2E)			+/-	5.4867	µg/mL	Unstressed
	Purity 99%				+/-	9.3024	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		502.8	µg/mL	+/-	2.9301	µg/mL	Gravimetric
	CAS # 108-39-4.SEC	(Lot 6LHTM)			+/-	5.5086	µg/mL	Unstressed
	Purity 99%				+/-	9.3395	µg/mL	Stressed
20	Nitrobenzene		1,001.0	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 98-95-3.SEC	(Lot FLYIG)			+/-	10.9668	µg/mL	Unstressed
	Purity 99%				+/-	18.5936	µg/mL	Stressed
21	Isophorone		1,003.2	µg/mL	+/-	5.8462	µg/mL	Gravimetric
	CAS # 78-59-1.SEC	(Lot XHGJI)			+/-	10.9909	µg/mL	Unstressed
	Purity 99%				+/-	18.6344	µg/mL	Stressed
22	2-Nitrophenol		1,003.8	µg/mL	+/-	5.8497	µg/mL	Gravimetric
	CAS # 88-75-5.SEC	(Lot GXJ7J)			+/-	10.9975	µg/mL	Unstressed
	Purity 99%				+/-	18.6456	µg/mL	Stressed
23	2,4-Dimethylphenol		1,001.8	µg/mL	+/-	5.8380	µg/mL	Gravimetric
	CAS # 105-67-9.SEC	(Lot MKBL3650V)			+/-	10.9756	µg/mL	Unstressed
	Purity 99%				+/-	18.6084	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,005.0	µg/mL	+/-	5.8567	µg/mL	Gravimetric
	CAS # 111-91-1 *	(Lot 317200)			+/-	11.0106	µg/mL	Unstressed
	Purity 99%				+/-	18.6679	µg/mL	Stressed
25	2,4-Dichlorophenol		1,001.6	µg/mL	+/-	5.8368	µg/mL	Gravimetric
	CAS # 120-83-2.SEC	(Lot FHM01)			+/-	10.9734	µg/mL	Unstressed
	Purity 99%				+/-	18.6047	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		1,002.0	µg/mL	+/-	5.8392	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot OGO01)			+/-	10.9778	µg/mL	Unstressed
	Purity 99%				+/-	18.6121	µg/mL	Stressed
27	Naphthalene		1,006.4	µg/mL	+/-	5.8648	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	11.0260	µg/mL	Unstressed
	Purity 99%				+/-	18.6939	µg/mL	Stressed
28	2,6-Dichlorophenol		1,005.6	µg/mL	+/-	5.8602	µg/mL	Gravimetric
	CAS # 87-65-0.SEC	(Lot SIDBB)			+/-	11.0172	µg/mL	Unstressed
	Purity 99%				+/-	18.6790	µg/mL	Stressed
29	4-Chloroaniline		1,000.2	µg/mL	+/-	5.8287	µg/mL	Gravimetric
	CAS # 106-47-8.SEC	(Lot 10171860)			+/-	10.9580	µg/mL	Unstressed
	Purity 99%				+/-	18.5787	µg/mL	Stressed
30	Hexachlorobutadiene		1,002.4	µg/mL	+/-	5.8415	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 2009400)			+/-	10.9821	µg/mL	Unstressed
	Purity 97%				+/-	18.6195	µg/mL	Stressed
31	2-Methylnaphthalene		1,001.0	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 91-57-6.SEC	(Lot 76023-1)			+/-	10.9668	µg/mL	Unstressed
	Purity 99%				+/-	18.5936	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,006.8	µg/mL	+/-	5.8671	µg/mL	Gravimetric
	CAS # 59-50-7.SEC	(Lot FDO02)			+/-	11.0303	µg/mL	Unstressed
	Purity 99%				+/-	18.7013	µg/mL	Stressed
33	1-Methylnaphthalene		1,003.8	µg/mL	+/-	5.8497	µg/mL	Gravimetric
	CAS # 90-12-0.SEC	(Lot UATSA)			+/-	10.9975	µg/mL	Unstressed
	Purity 99%				+/-	18.6456	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.6	µg/mL	+/-	5.8427	µg/mL	Gravimetric
	CAS # 95-94-3.SEC	(Lot AF02)			+/-	10.9843	µg/mL	Unstressed
	Purity 99%				+/-	18.6233	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,004.0	µg/mL	+/-	5.8508	µg/mL	Gravimetric
	CAS # 77-47-4.SEC	(Lot 0012013)			+/-	10.9997	µg/mL	Unstressed
	Purity 99%				+/-	18.6493	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,006.7	µg/mL	+/-	5.8663	µg/mL	Gravimetric
	CAS # 88-06-2.SEC	(Lot UUMYM)			+/-	11.0288	µg/mL	Unstressed
	Purity 98%				+/-	18.6986	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,002.8	µg/mL	+/-	5.8438	µg/mL	Gravimetric
	CAS # 95-95-4.SEC	(Lot MKBQ9937V)			+/-	10.9864	µg/mL	Unstressed
	Purity 97%				+/-	18.6267	µg/mL	Stressed
38	2-Chloronaphthalene		1,006.4	µg/mL	+/-	5.8648	µg/mL	Gravimetric
	CAS # 91-58-7.SEC	(Lot LC03928V)			+/-	11.0260	µg/mL	Unstressed
	Purity 99%				+/-	18.6939	µg/mL	Stressed
39	Biphenyl		1,005.8	µg/mL	+/-	5.8613	µg/mL	Gravimetric
	CAS # 92-52-4.SEC	(Lot 330QE)			+/-	11.0194	µg/mL	Unstressed
	Purity 99%				+/-	18.6827	µg/mL	Stressed

40	4-Nitroaniline		1,005.4	µg/mL	+/-	5.8590	µg/mL	Gravimetric
	CAS # 100-01-6.SEC	(Lot 5ITRC)			+/-	11.0150	µg/mL	Unstressed
	Purity 99%				+/-	18.6753	µg/mL	Stressed
41	Acenaphthylene		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 208-96-8.SEC	(Lot 062013)			+/-	10.9558	µg/mL	Unstressed
	Purity 98%				+/-	18.5748	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,004.8	µg/mL	+/-	5.8555	µg/mL	Gravimetric
	CAS # 99-65-0.SEC	(Lot 3XXLB)			+/-	11.0084	µg/mL	Unstressed
	Purity 99%				+/-	18.6642	µg/mL	Stressed
43	Dimethylphthalate		1,000.6	µg/mL	+/-	5.8310	µg/mL	Gravimetric
	CAS # 131-11-3.SEC	(Lot 483WC)			+/-	10.9624	µg/mL	Unstressed
	Purity 99%				+/-	18.5861	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,006.8	µg/mL	+/-	5.8671	µg/mL	Gravimetric
	CAS # 606-20-2.SEC	(Lot GE01)			+/-	11.0303	µg/mL	Unstressed
	Purity 99%				+/-	18.7013	µg/mL	Stressed
45	Acenaphthene		1,001.8	µg/mL	+/-	5.8380	µg/mL	Gravimetric
	CAS # 83-32-9.SEC	(Lot BWZJE)			+/-	10.9756	µg/mL	Unstressed
	Purity 99%				+/-	18.6084	µg/mL	Stressed
46	2,4-Dinitrophenol		2,006.2	µg/mL	+/-	11.6642	µg/mL	Gravimetric
	CAS # 51-28-5.SEC	(Lot 2TXXH)			+/-	21.9653	µg/mL	Unstressed
	Purity 99%				+/-	37.2567	µg/mL	Stressed
47	Dibenzofuran		1,000.8	µg/mL	+/-	5.8322	µg/mL	Gravimetric
	CAS # 132-64-9.SEC	(Lot 27ZGC)			+/-	10.9646	µg/mL	Unstressed
	Purity 99%				+/-	18.5899	µg/mL	Stressed
48	3-Nitroaniline		1,002.6	µg/mL	+/-	5.8427	µg/mL	Gravimetric
	CAS # 99-09-2.SEC	(Lot FGN03)			+/-	10.9843	µg/mL	Unstressed
	Purity 99%				+/-	18.6233	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,003.6	µg/mL	+/-	5.8485	µg/mL	Gravimetric
	CAS # 121-14-2.SEC	(Lot SHRSA)			+/-	10.9953	µg/mL	Unstressed
	Purity 99%				+/-	18.6419	µg/mL	Stressed
50	4-Nitrophenol		2,004.2	µg/mL	+/-	11.6526	µg/mL	Gravimetric
	CAS # 100-02-7.SEC	(Lot 2J5LB)			+/-	21.9434	µg/mL	Unstressed
	Purity 99%				+/-	37.2196	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,005.4	µg/mL	+/-	5.8590	µg/mL	Gravimetric
	CAS # 58-90-2.SEC	(Lot LB98980V)			+/-	11.0150	µg/mL	Unstressed
	Purity 99%				+/-	18.6753	µg/mL	Stressed
52	Fluorene		995.1	µg/mL	+/-	5.7989	µg/mL	Gravimetric
	CAS # 86-73-7.SEC	(Lot 1240200)			+/-	10.9021	µg/mL	Unstressed
	Purity 98%				+/-	18.4838	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,005.4	µg/mL	+/-	5.8590	µg/mL	Gravimetric
	CAS # 7005-72-3.SEC	(Lot P31G)			+/-	11.0150	µg/mL	Unstressed
	Purity 99%				+/-	18.6753	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.4	µg/mL	+/-	5.8590	µg/mL	Gravimetric
	CAS # 544-76-3.SEC	(Lot A0328141)			+/-	11.0150	µg/mL	Unstressed
	Purity 99%				+/-	18.6753	µg/mL	Stressed
55	Diethylphthalate		1,000.2	µg/mL	+/-	5.8287	µg/mL	Gravimetric
	CAS # 84-66-2.SEC	(Lot UMBJC)			+/-	10.9580	µg/mL	Unstressed
	Purity 99%				+/-	18.5787	µg/mL	Stressed

56	Azobenzene		1,003.2	µg/mL	+/-	5.8462	µg/mL	Gravimetric
	CAS # 103-33-3.SEC	(Lot JUWAG)			+/-	10.9909	µg/mL	Unstressed
	Purity 99%				+/-	18.6344	µg/mL	Stressed
57	Diphenylamine		1,711.8	µg/mL	+/-	9.9756	µg/mL	Gravimetric
	CAS # 122-39-4.SEC	(Lot 10164691)			+/-	18.7542	µg/mL	Unstressed
	Purity 99%				+/-	31.7967	µg/mL	Stressed
58	2-Nitroaniline		1,000.2	µg/mL	+/-	5.8287	µg/mL	Gravimetric
	CAS # 88-74-4.SEC	(Lot T6E7B)			+/-	10.9580	µg/mL	Unstressed
	Purity 99%				+/-	18.5787	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,009.8	µg/mL	+/-	11.6852	µg/mL	Gravimetric
	CAS # 534-52-1.SEC	(Lot 1791900)			+/-	22.0047	µg/mL	Unstressed
	Purity 99%				+/-	37.3236	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,003.8	µg/mL	+/-	5.8497	µg/mL	Gravimetric
	CAS # 101-55-3.SEC	(Lot 84C6D)			+/-	10.9975	µg/mL	Unstressed
	Purity 99%				+/-	18.6456	µg/mL	Stressed
61	Hexachlorobenzene		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 118-74-1.SEC	(Lot 20625)			+/-	10.9558	µg/mL	Unstressed
	Purity 98%				+/-	18.5748	µg/mL	Stressed
62	Pentachlorophenol		2,002.2	µg/mL	+/-	11.6410	µg/mL	Gravimetric
	CAS # 87-86-5.SEC	(Lot 1239600)			+/-	21.9215	µg/mL	Unstressed
	Purity 99%				+/-	37.1824	µg/mL	Stressed
63	Phenanthrene		1,004.4	µg/mL	+/-	5.8532	µg/mL	Gravimetric
	CAS # 85-01-8.SEC	(Lot 1238300)			+/-	11.0040	µg/mL	Unstressed
	Purity 99%				+/-	18.6567	µg/mL	Stressed
64	n-Octadecane (C18)		1,001.2	µg/mL	+/-	5.8345	µg/mL	Gravimetric
	CAS # 593-45-3.SEC	(Lot G14U045)			+/-	10.9690	µg/mL	Unstressed
	Purity 99%				+/-	18.5973	µg/mL	Stressed
65	Anthracene		1,000.6	µg/mL	+/-	5.8310	µg/mL	Gravimetric
	CAS # 120-12-7.SEC	(Lot WDFNJ)			+/-	10.9624	µg/mL	Unstressed
	Purity 99%				+/-	18.5861	µg/mL	Stressed
66	Carbazole		1,001.8	µg/mL	+/-	5.8380	µg/mL	Gravimetric
	CAS # 86-74-8.SEC	(Lot LMIZB)			+/-	10.9756	µg/mL	Unstressed
	Purity 99%				+/-	18.6084	µg/mL	Stressed
67	Di-n-butylphthalate		1,000.8	µg/mL	+/-	5.8322	µg/mL	Gravimetric
	CAS # 84-74-2.SEC	(Lot 42FSG)			+/-	10.9646	µg/mL	Unstressed
	Purity 99%				+/-	18.5899	µg/mL	Stressed
68	Fluoranthene		1,002.6	µg/mL	+/-	5.8427	µg/mL	Gravimetric
	CAS # 206-44-0.SEC	(Lot FREGF)			+/-	10.9843	µg/mL	Unstressed
	Purity 99%				+/-	18.6233	µg/mL	Stressed
69	Pyrene		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 129-00-0.SEC	(Lot ROVJC)			+/-	10.9558	µg/mL	Unstressed
	Purity 99%				+/-	18.5750	µg/mL	Stressed
70	Benzyl butyl phthalate		1,004.5	µg/mL	+/-	5.8537	µg/mL	Gravimetric
	CAS # 85-68-7.SEC	(Lot GX3GL)			+/-	11.0051	µg/mL	Unstressed
	Purity 98%				+/-	18.6586	µg/mL	Stressed
71	Benz(a)anthracene		999.7	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 56-55-3.SEC	(Lot MTENF)			+/-	10.9524	µg/mL	Unstressed
	Purity 97%				+/-	18.5691	µg/mL	Stressed

72	chrysene		1,003.0	µg/mL	+/-	5.8450	µg/mL	Gravimetric
	CAS # 218-01-9.SEC	(Lot KQ4SE)			+/-	10.9887	µg/mL	Unstressed
	Purity 99%				+/-	18.6307	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,003.6	µg/mL	+/-	5.8485	µg/mL	Gravimetric
	CAS # 117-81-7.SEC	(Lot MT8AG)			+/-	10.9953	µg/mL	Unstressed
	Purity 99%				+/-	18.6419	µg/mL	Stressed
74	Di-n-octyl phthalate		1,002.0	µg/mL	+/-	5.8389	µg/mL	Gravimetric
	CAS # 117-84-0.SEC	(Lot O8DLD)			+/-	10.9772	µg/mL	Unstressed
	Purity 98%				+/-	18.6113	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,002.2	µg/mL	+/-	5.8403	µg/mL	Gravimetric
	CAS # 205-99-2.SEC	(Lot 022011)			+/-	10.9799	µg/mL	Unstressed
	Purity 99%				+/-	18.6159	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.6	µg/mL	+/-	5.8660	µg/mL	Gravimetric
	CAS # 207-08-9.SEC	(Lot 022011)			+/-	11.0281	µg/mL	Unstressed
	Purity 99%				+/-	18.6976	µg/mL	Stressed
77	Benzo(a)pyrene		1,000.2	µg/mL	+/-	5.8287	µg/mL	Gravimetric
	CAS # 50-32-8.SEC	(Lot 2IGMD)			+/-	10.9580	µg/mL	Unstressed
	Purity 99%				+/-	18.5787	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,000.0	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 193-39-5.SEC	(Lot 012011)			+/-	10.9558	µg/mL	Unstressed
	Purity 99%				+/-	18.5750	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,002.4	µg/mL	+/-	5.8415	µg/mL	Gravimetric
	CAS # 53-70-3.SEC	(Lot 0012012)			+/-	10.9821	µg/mL	Unstressed
	Purity 99%				+/-	18.6196	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,007.6	µg/mL	+/-	5.8718	µg/mL	Gravimetric
	CAS # 191-24-2.SEC	(Lot 0022012)			+/-	11.0391	µg/mL	Unstressed
	Purity 99%				+/-	18.7162	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

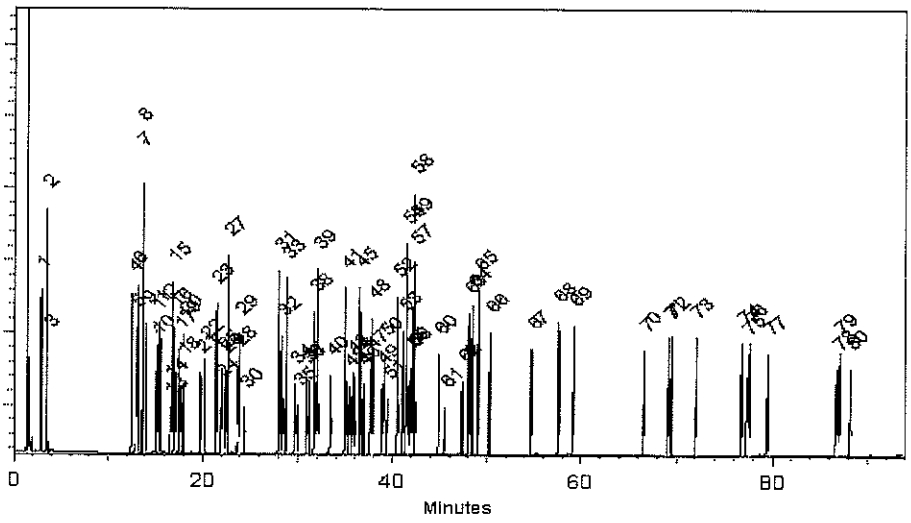
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 5 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 10-Dec-2014 **Balance:** 1128353505

Tyler Brown - QA Analyst

Date Passed: 23-Dec-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

SMLIST1 SURR_00003

5MLIST1 SURR-00002

RESTEK

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Bellefonte, PA 16823-8812
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Fax: (814)353-1309

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A093638

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2018 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 367-12-4		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
2	Phenol-d5	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 4165-62-2		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 4165-60-0		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 321-60-8		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 118-79-6		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0 µg/mL	+/- 29.0689	µg/mL	Gravimetric
	CAS # 1718-51-0		+/- 132.9492	µg/mL	Unstressed
	Purity 99%		+/- 163.4029	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

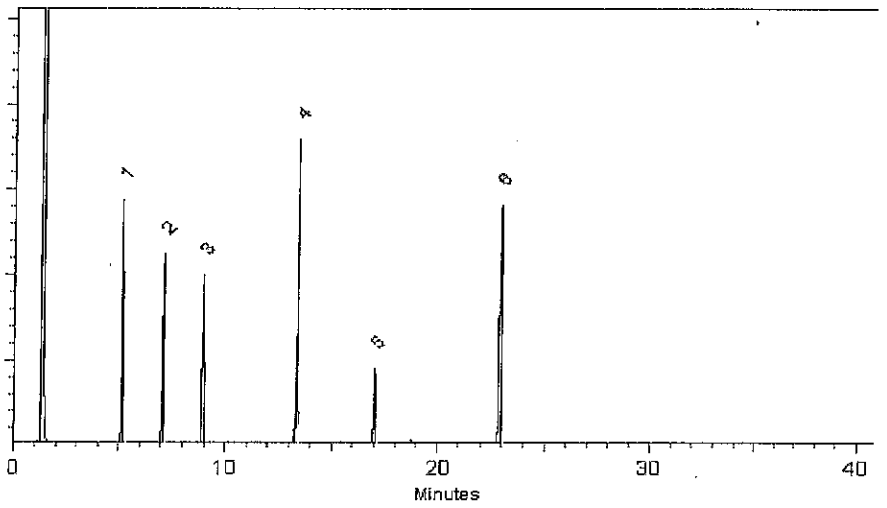
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Diane Shaffer - QA Analyst

Date Passed: 22-Feb-2013 **Balance:** 1128342313

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

SMLIST1SS SUR_00002

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Composition

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A092712

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 2018 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol	5,000.0 µg/mL	+/- 29.2761 µg/mL	Gravimetric
	CAS # 367-12-4		+/- 132.9947 µg/mL	Unstressed
	Purity 99%		+/- 163.4399 µg/mL	Stressed
2	Phenol-d5	5,000.0 µg/mL	+/- 29.2761 µg/mL	Gravimetric
	CAS # 4165-62-2		+/- 132.9947 µg/mL	Unstressed
	Purity 99%		+/- 163.4399 µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0 µg/mL	+/- 29.2761 µg/mL	Gravimetric
	CAS # 4165-60-0		+/- 132.9947 µg/mL	Unstressed
	Purity 99%		+/- 163.4399 µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0 µg/mL	+/- 29.2761 µg/mL	Gravimetric
	CAS # 321-60-8		+/- 132.9947 µg/mL	Unstressed
	Purity 99%		+/- 163.4399 µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0 µg/mL	+/- 29.2761 µg/mL	Gravimetric
	CAS # 118-79-6		+/- 132.9947 µg/mL	Unstressed
	Purity 99%		+/- 163.4399 µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0 µg/mL	+/- 29.2761 µg/mL	Gravimetric
	CAS # 1718-51-0		+/- 132.9947 µg/mL	Unstressed
	Purity 99%		+/- 163.4399 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

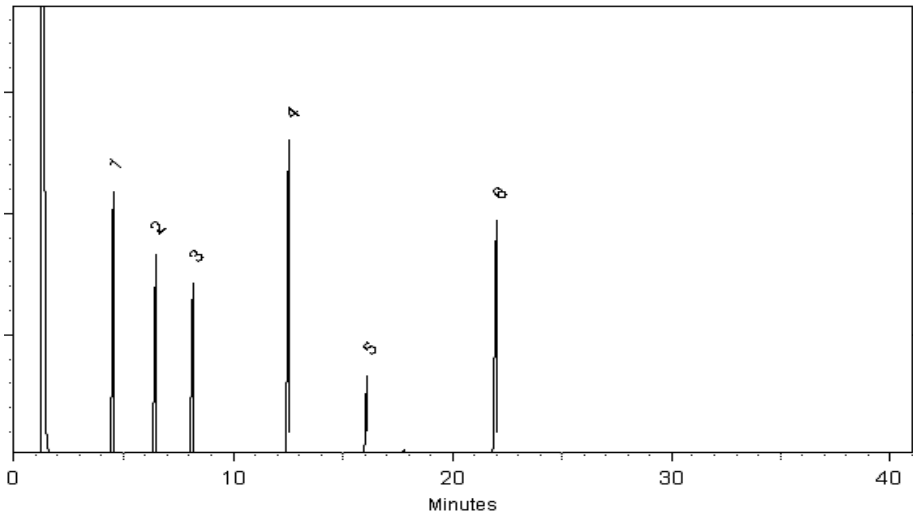
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2013 **Balance:** 1128342314

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

REVIEWED
By jlidgett at 8:46 am, Jan 15, 2013

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F-4-1	240-54467-1	60	69	53	64	37	82
D-VB-F-10-2	240-54467-2	59	65	49	62	51	80
D-VB-F-13-2	240-54467-3	62	72	58	70	37	82
D-VB-F-14-2	240-54467-4	55	58	47	52	45	90
D-VB-F-15-2	240-54467-5	72	79	63	70	53	84
D-VB-F-19-2	240-54467-6	70	74	62	67	41	83
	MB 240-194053/12-A	69	77	69	73	24	93
	LCS 240-194053/13-A	79	80	82	77	42	95
	240-54203-C-19-H MS	54	57	53	57	41	84
	240-54203-C-19-I MSD	57	65	57	62	47	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822004.D

Lab ID: LCS 240-194053/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	529	79	38-110	
Acenaphthylene	667	542	81	40-110	
Anthracene	667	539	81	48-110	
Benzo[a]anthracene	667	595	89	50-110	
Benzo[a]pyrene	667	613	92	44-110	
Benzo[b]fluoranthene	667	596	89	43-110	
Benzo[g,h,i]perylene	667	710	107	51-110	
Benzo[k]fluoranthene	667	640	96	38-105	
Chrysene	667	619	93	50-110	
Dibenz(a,h)anthracene	667	699	105	51-110	
Fluoranthene	667	575	86	51-110	
Fluorene	667	539	81	46-110	
Indeno[1,2,3-cd]pyrene	667	682	102	50-110	
Naphthalene	667	548	82	36-110	
Phenanthrene	667	526	79	49-110	
Pyrene	667	646	97	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822026.D

Lab ID: 240-54203-C-19-H MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	814	8.8	533	64	22-110	
Acenaphthylene	814	130	579	55	24-110	
Anthracene	814	130	658	65	20-110	
Benzo[a]anthracene	814	650	855	26	10-122	
Benzo[a]pyrene	814	640	869	28	10-110	
Benzo[b]fluoranthene	814	800	946	18	12-118	
Benzo[g,h,i]perylene	814	380	799	52	10-117	
Benzo[k]fluoranthene	814	370	760	49	10-121	
Chrysene	814	630	882	31	10-125	
Dibenz(a,h)anthracene	814	110	719	75	14-113	
Fluoranthene	814	1100	1010	-6	10-110	F1
Fluorene	814	26	589	69	23-110	
Indeno[1,2,3-cd]pyrene	814	360	810	55	10-114	
Naphthalene	814	8.0 J	459	55	10-111	
Phenanthrene	814	270	744	58	10-166	
Pyrene	814	960	990	4	10-147	F1

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822027.D

Lab ID: 240-54203-C-19-I MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	817	585	70	9	99	22-110	
Acenaphthylene	817	793	81	31	99	24-110	
Anthracene	817	795	81	19	99	20-110	
Benzo[a]anthracene	817	1540	109	57	99	10-122	
Benzo[a]pyrene	817	1550	111	56	99	10-110	F1
Benzo[b]fluoranthene	817	1810	124	63	99	12-118	F1
Benzo[g,h,i]perylene	817	1230	104	42	99	10-117	
Benzo[k]fluoranthene	817	1160	97	41	99	10-121	
Chrysene	817	1550	112	55	99	10-125	
Dibenz(a,h)anthracene	817	841	89	16	99	14-113	
Fluoranthene	817	1960	110	64	99	10-110	
Fluorene	817	650	76	10	99	23-110	
Indeno[1,2,3-cd]pyrene	817	1190	102	38	99	10-114	
Naphthalene	817	502	60	9	99	10-111	
Phenanthrene	817	1110	103	40	99	10-166	
Pyrene	817	1950	122	65	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50822003.D Lab Sample ID: MB 240-194053/12-A

Matrix: Solid Date Extracted: 08/20/2015 07:47

Instrument ID: A4HP9 Date Analyzed: 08/22/2015 10:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194053/13-A	50822004.D	08/22/2015 11:15
D-VB-F-14-2	240-54467-4	50822018.D	08/22/2015 17:01
D-VB-F-19-2	240-54467-6	50822019.D	08/22/2015 17:26
D-VB-F-15-2	240-54467-5	50822020.D	08/22/2015 17:51
D-VS-F-4-1	240-54467-1	50822021.D	08/22/2015 18:16
D-VB-F-10-2	240-54467-2	50822022.D	08/22/2015 18:41
D-VB-F-13-2	240-54467-3	50822023.D	08/22/2015 19:05
	240-54203-C-19-H MS	50822026.D	08/22/2015 20:19
	240-54203-C-19-I MSD	50822027.D	08/22/2015 20:44

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50822001.D DFTPP Injection Date: 08/22/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:35

Analysis Batch No.: 194396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	84.4	
70	Less than 2.0% of mass 69	0.5	(0.5)1
127	25.0 - 75.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	23.0	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.4	
442	40.0 - 110.0% of mass 198	50.0	
443	15.0 - 24.0% of mass 442	9.7	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-194396/2	50822002.D	08/22/2015	09:56
	MB 240-194053/12-A	50822003.D	08/22/2015	10:50
	LCS 240-194053/13-A	50822004.D	08/22/2015	11:15
D-VB-F-14-2	240-54467-4	50822018.D	08/22/2015	17:01
D-VB-F-19-2	240-54467-6	50822019.D	08/22/2015	17:26
D-VB-F-15-2	240-54467-5	50822020.D	08/22/2015	17:51
D-VS-F-4-1	240-54467-1	50822021.D	08/22/2015	18:16
D-VB-F-10-2	240-54467-2	50822022.D	08/22/2015	18:41
D-VB-F-13-2	240-54467-3	50822023.D	08/22/2015	19:05
	240-54203-C-19-H MS	50822026.D	08/22/2015	20:19
	240-54203-C-19-I MSD	50822027.D	08/22/2015	20:44

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-194396/2 CCVIS		135257	6.21	533129	7.33	298733	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-194396/2 CCVIS		487262	10.09	505547	12.35	475689	13.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: CCV 240-194396/2 Date Analyzed: 08/22/2015 09:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50822002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135257	6.21	533129	7.33	298733	8.83
UPPER LIMIT		270514	6.71	1066258	7.83	597466	9.33
LOWER LIMIT		67629	5.71	266565	6.83	149367	8.33
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194053/12-A		115019	6.21	436484	7.33	251883	8.83
LCS 240-194053/13-A		120628	6.21	455822	7.33	262856	8.83
240-54467-4	D-VB-F-14-2	126831	6.21	480398	7.33	276285	8.83
240-54467-6	D-VB-F-19-2	134468	6.21	505382	7.33	305107	8.83
240-54467-5	D-VB-F-15-2	131739	6.21	502009	7.33	304478	8.83
240-54467-1	D-VS-F-4-1	144277	6.21	549790	7.33	326731	8.83
240-54467-2	D-VB-F-10-2	138990	6.21	540976	7.33	317759	8.83
240-54467-3	D-VB-F-13-2	141631	6.21	541479	7.33	320636	8.83
240-54203-C-19-H MS		147946	6.21	573602	7.33	334159	8.83
240-54203-C-19-I MSD		138296	6.21	553272	7.33	320380	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: CCV 240-194396/2 Date Analyzed: 08/22/2015 09:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50822002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		487262	10.09	505547	12.35	475689	13.99
UPPER LIMIT		974524	10.59	1011094	12.85	951378	14.49
LOWER LIMIT		243631	9.59	252774	11.85	237845	13.49
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194053/12-A		422637	10.09	444063	12.34	388202	13.98
LCS 240-194053/13-A		446050	10.09	460641	12.34	410624	13.98
240-54467-4	D-VB-F-14-2	470616	10.09	519198	12.35	492581	13.98
240-54467-6	D-VB-F-19-2	521908	10.09	572843	12.35	522934	13.98
240-54467-5	D-VB-F-15-2	501105	10.09	563573	12.35	535663	13.99
240-54467-1	D-VS-F-4-1	544537	10.09	623941	12.34	612570	13.98
240-54467-2	D-VB-F-10-2	544692	10.09	609354	12.34	567194	13.98
240-54467-3	D-VB-F-13-2	542909	10.09	609272	12.35	604197	13.99
240-54203-C-19-H MS		577188	10.09	647367	12.35	632913	13.99
240-54203-C-19-I MSD		547463	10.09	588420	12.35	621592	13.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VS-F-4-1 | Lab Sample ID: 240-54467-1

Matrix: Solid | Lab File ID: 50822021.D

Analysis Method: 8270D | Date Collected: 08/18/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.83(g) | Date Analyzed: 08/22/2015 18:16

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		7.4	0.85
208-96-8	Acenaphthylene	22		7.4	0.39
120-12-7	Anthracene	39		7.4	0.87
56-55-3	Benzo[a]anthracene	200		7.4	0.70
50-32-8	Benzo[a]pyrene	230		7.4	0.71
205-99-2	Benzo[b]fluoranthene	350		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	260		7.4	0.39
207-08-9	Benzo[k]fluoranthene	130		7.4	0.76
218-01-9	Chrysene	270		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	54		7.4	0.73
206-44-0	Fluoranthene	410		7.4	0.61
86-73-7	Fluorene	13		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	190		7.4	0.39
91-20-3	Naphthalene	12		7.4	0.91
85-01-8	Phenanthrene	180		7.4	0.81
129-00-0	Pyrene	410		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D
Lims ID: 240-54467-B-1-A Lab Sample ID: 240-54467-1
Client ID: D-VS-F-4-1
Sample Type: Client
Inject. Date: 22-Aug-2015 18:16:30 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-021
Misc. Info.: 240-54467-B-1-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 08:50:15

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.212	6.214	-0.002	94	144277	4.00	
* 2 Naphthalene-d8	136	7.328	7.330	-0.002	98	549790	4.00	
* 3 Acenaphthene-d10	164	8.828	8.830	-0.002	91	326731	4.00	
* 4 Phenanthrene-d10	188	10.088	10.090	-0.002	96	544537	4.00	
* 5 Chrysene-d12	240	12.344	12.345	-0.001	97	623941	4.00	
* 6 Perylene-d12	264	13.983	13.985	-0.002	98	612570	4.00	
$ 7 2-Fluorophenol	112	5.005	4.983	0.022	94	375954	5.95	
$ 8 Phenol-d5	99	5.890	5.882	0.008	97	612780	6.86	
$ 9 Nitrobenzene-d5	82	6.693	6.690	0.003	83	560721	5.27	
$ 10 2-Fluorobiphenyl (Surr)	172	8.232	8.234	-0.002	99	686347	6.43	
$ 11 2,4,6-Tribromophenol	330	9.497	9.499	-0.002	79	39217	3.69	
$ 12 Terphenyl-d14	244	11.411	11.408	0.003	99	938314	8.17	
75 Naphthalene	128	7.347	7.349	-0.002	97	26201	0.1667	
109 Acenaphthylene	152	8.713	8.715	-0.002	98	46245	0.3029	
112 Acenaphthene	153	8.857	8.859	-0.002	93	13311	0.1357	
126 Fluorene	166	9.290	9.292	-0.002	96	19304	0.1714	
148 Phenanthrene	178	10.112	10.114	-0.002	99	413064	2.39	
149 Anthracene	178	10.155	10.157	-0.002	97	89989	0.5241	
159 Fluoranthene	202	11.122	11.124	-0.002	100	956797	5.49	
161 Pyrene	202	11.324	11.321	0.003	95	982325	5.46	
177 Benzo[a]anthracene	228	12.334	12.336	-0.002	99	531627	2.76	
178 Chrysene	228	12.368	12.369	-0.001	97	661246	3.66	
182 Benzo[b]fluoranthene	252	13.478	13.475	0.003	96	850661	4.69	M
183 Benzo[k]fluoranthene	252	13.502	13.509	-0.007	97	322524	1.76	M
184 Benzo[a]pyrene	252	13.906	13.908	-0.002	78	532109	3.08	
188 Indeno[1,2,3-cd]pyrene	276	15.748	15.755	-0.007	97	454241	2.53	
189 Dibenz(a,h)anthracene	278	15.753	15.760	-0.007	55	102581	0.7287	
190 Benzo[g,h,i]perylene	276	16.306	16.303	0.003	96	514960	3.45	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011	Amount Added:	5.00	Units: uL	Run Reagent

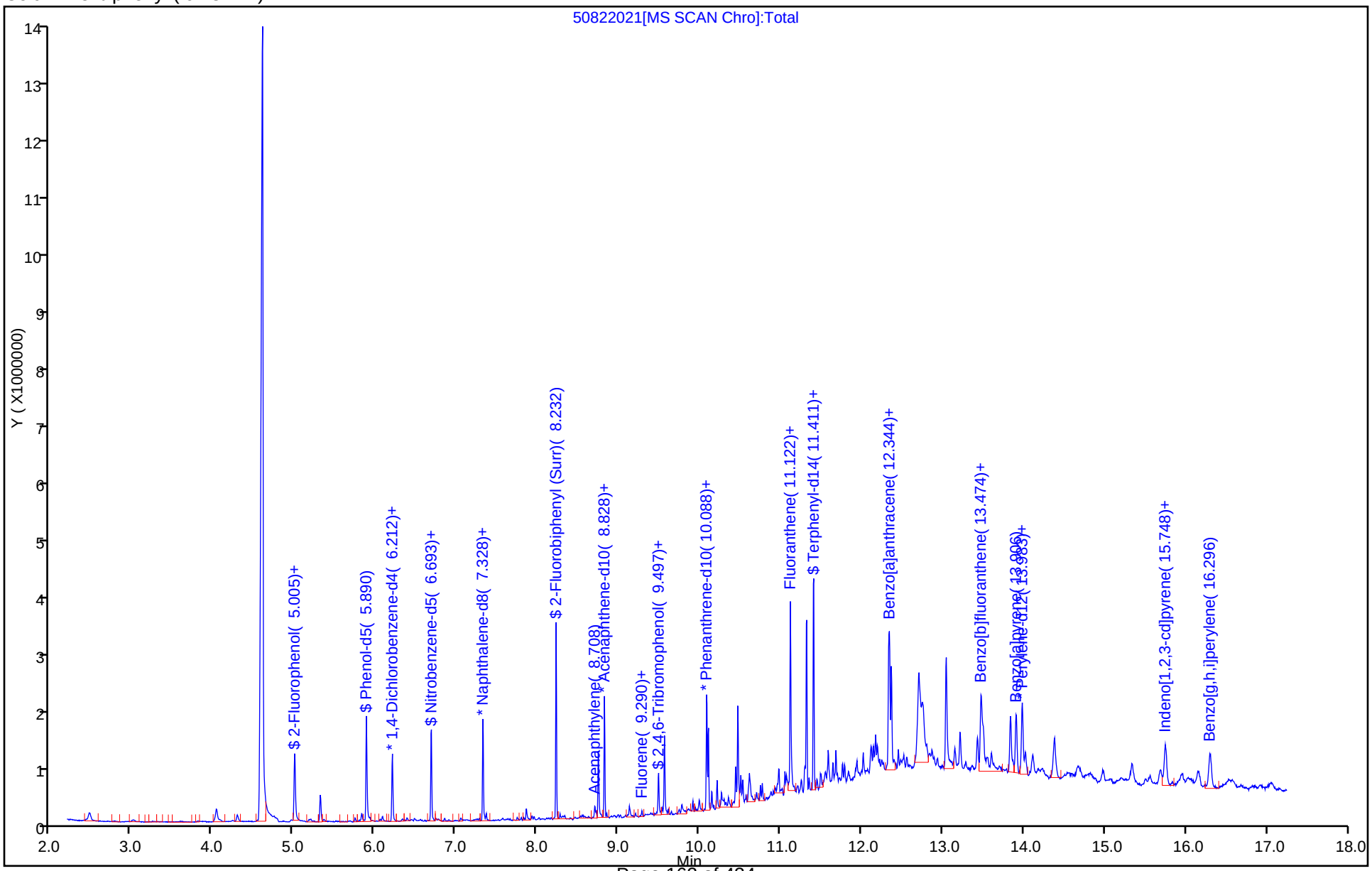
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1	Worklist Smp#:	21
Client ID:	D-VS-F-4-1				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



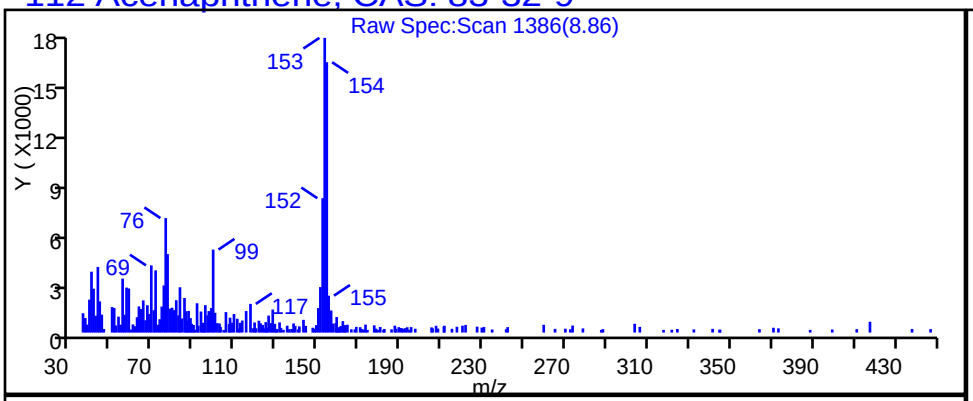
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

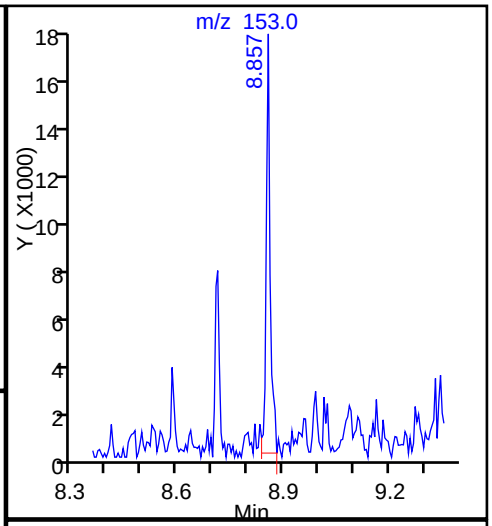
TestAmerica Canton

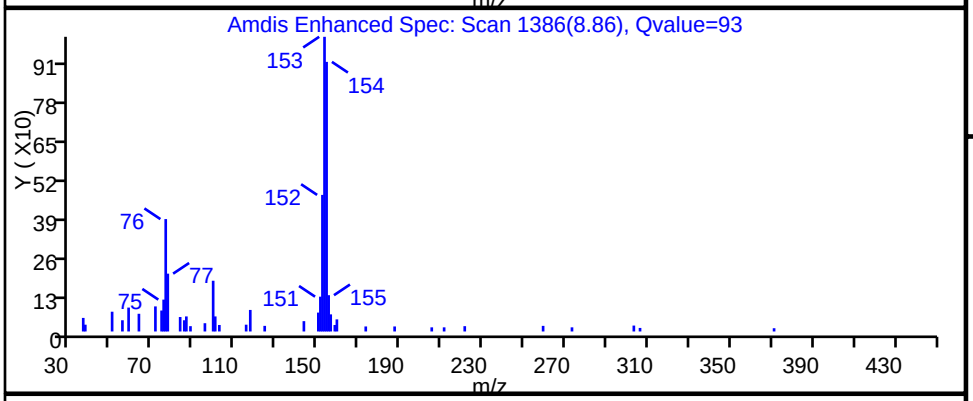
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

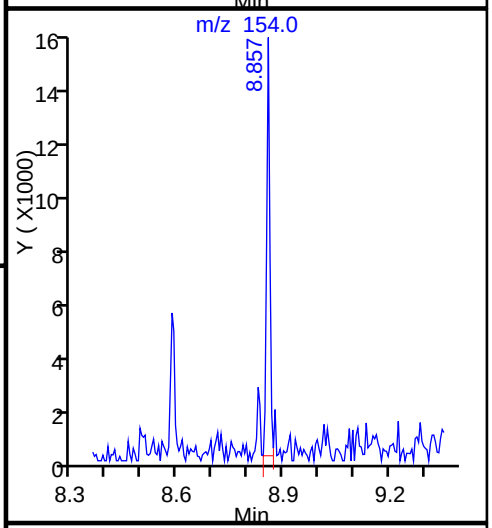
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

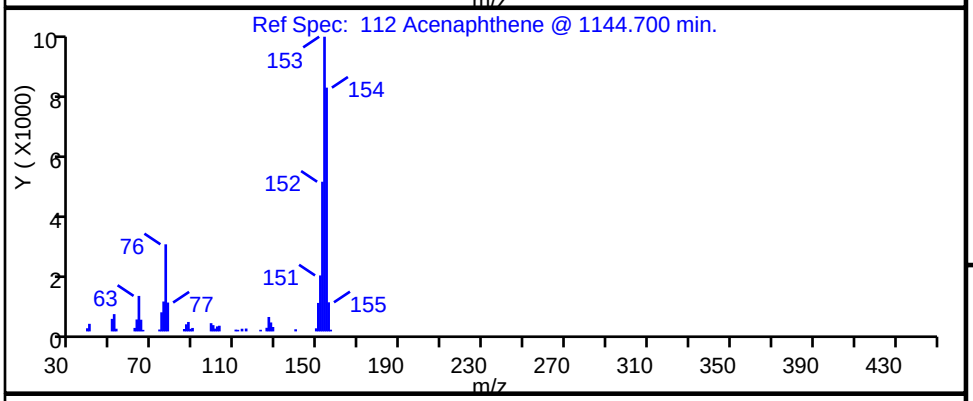
112 Acenaphthene, CAS: 83-32-9

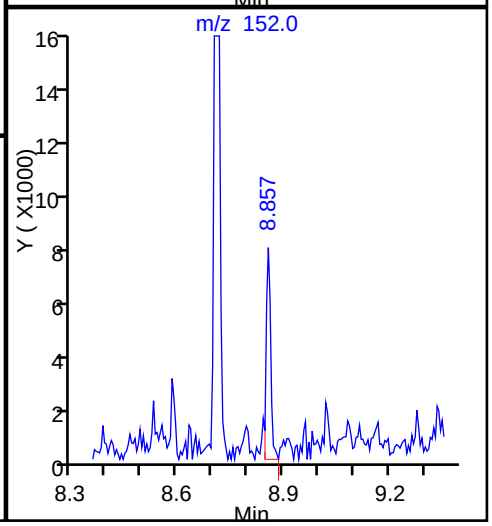


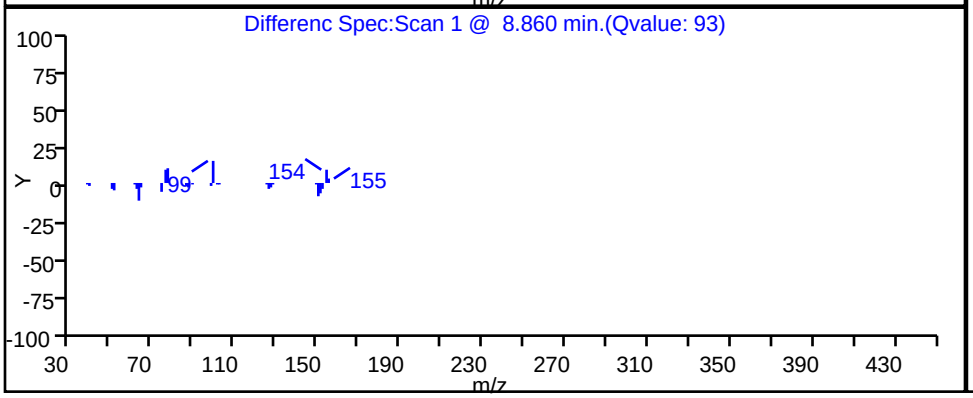












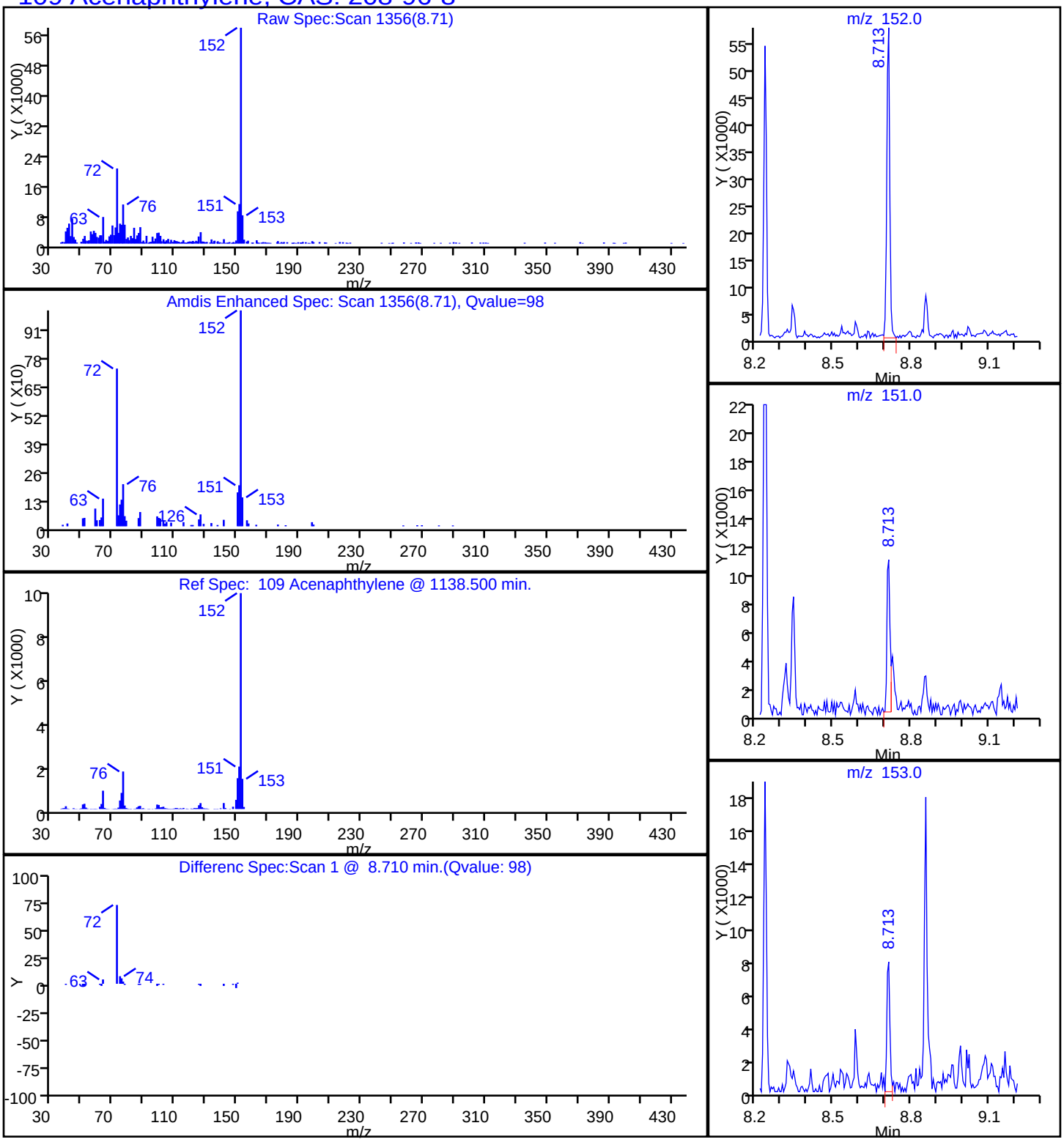
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

109 Acenaphthylene, CAS: 208-96-8



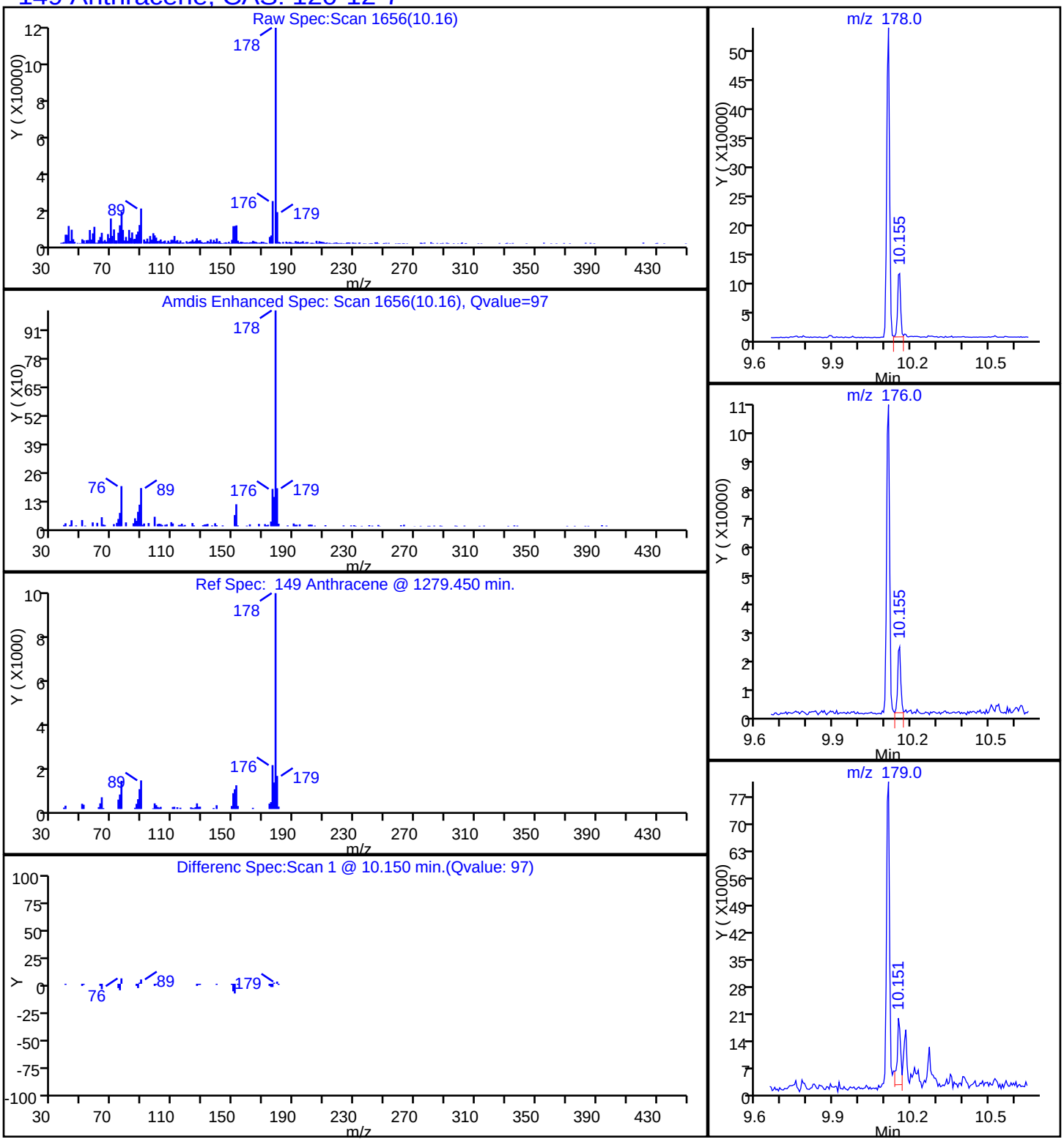
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

149 Anthracene, CAS: 120-12-7



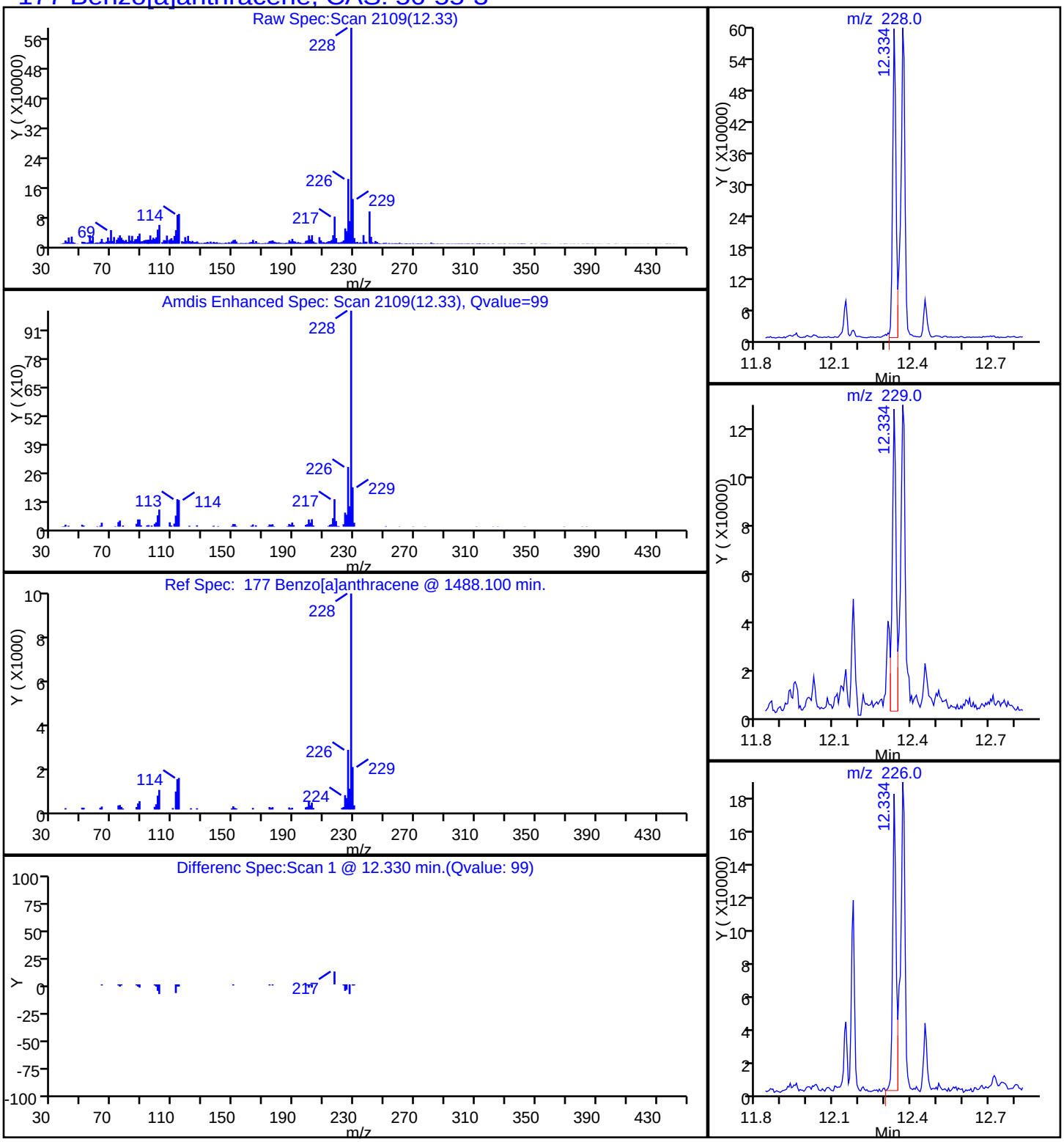
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

177 Benzo[a]anthracene, CAS: 56-55-3



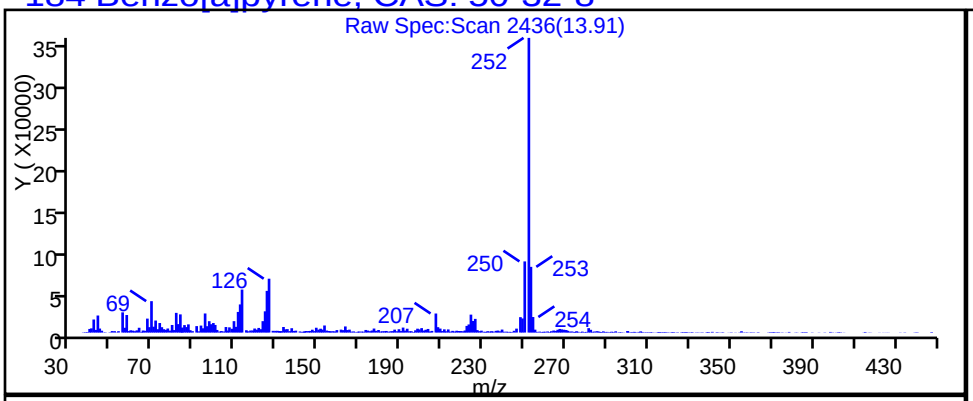
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

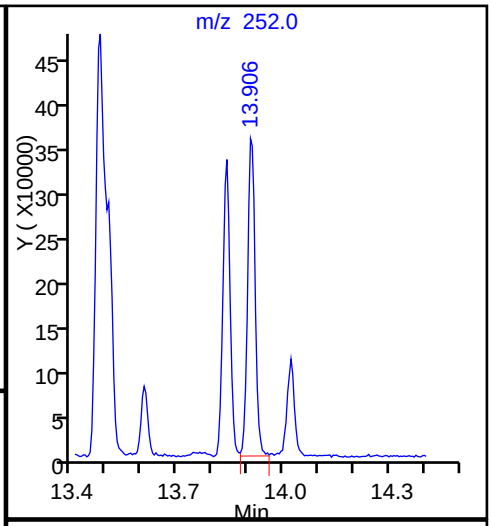
TestAmerica Canton

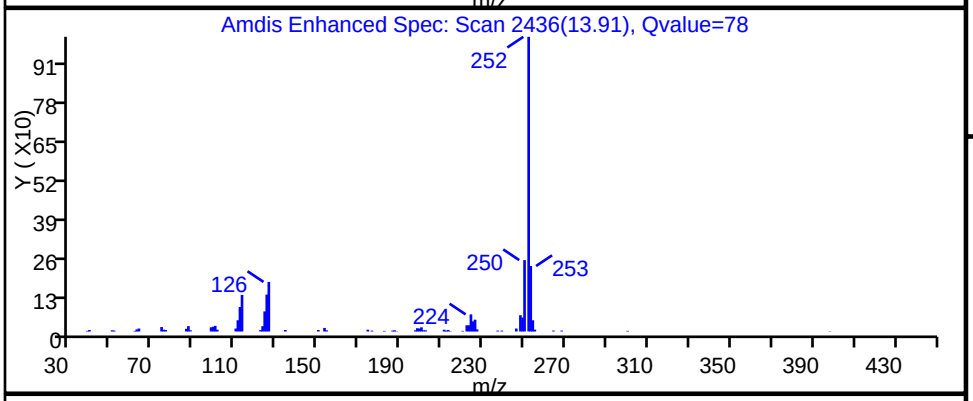
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

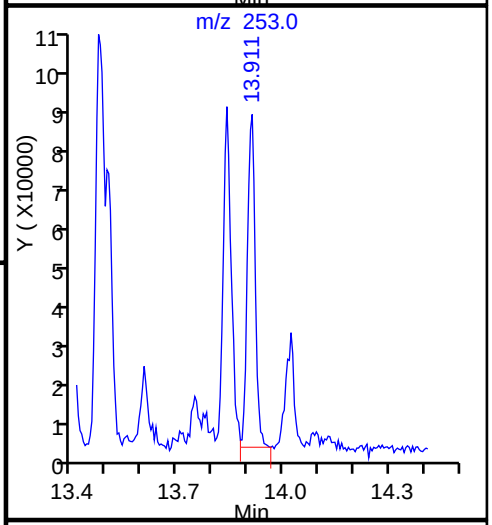
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

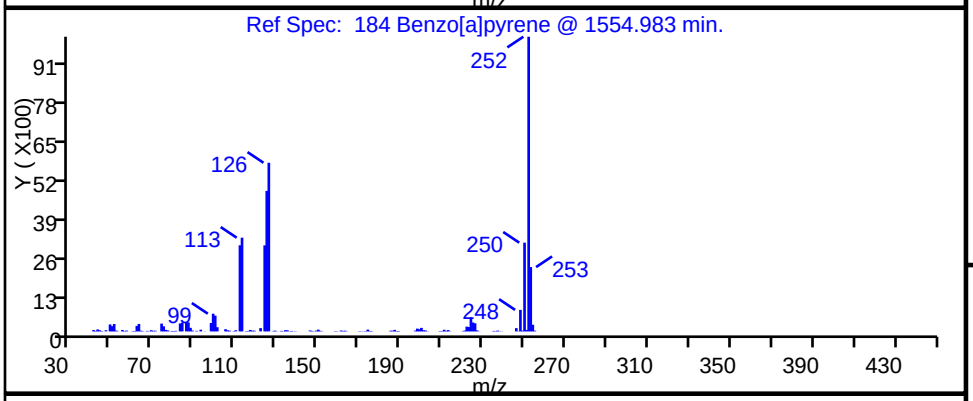
184 Benzo[a]pyrene, CAS: 50-32-8

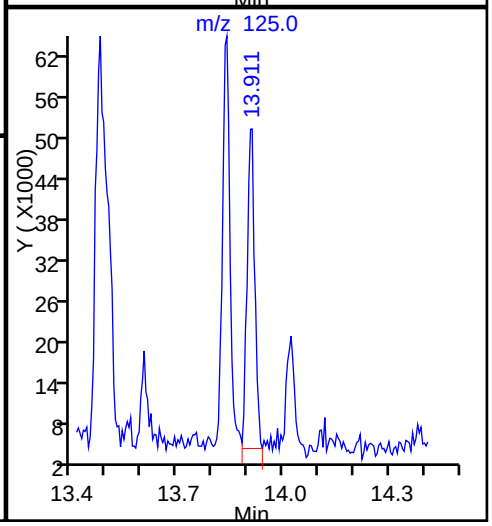


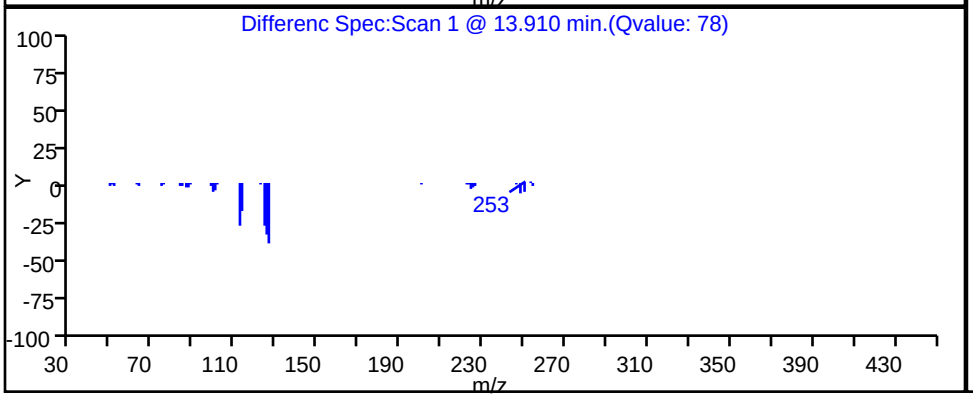












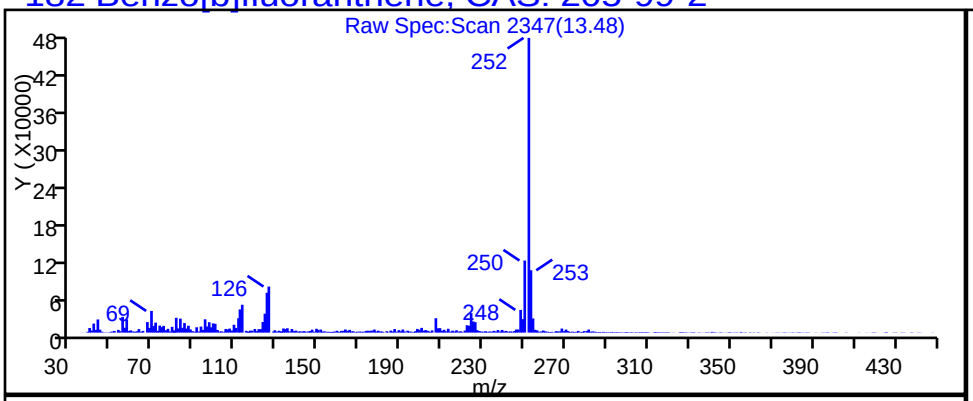
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

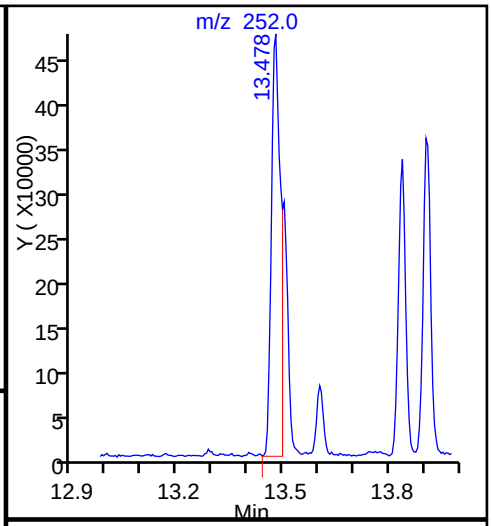
TestAmerica Canton

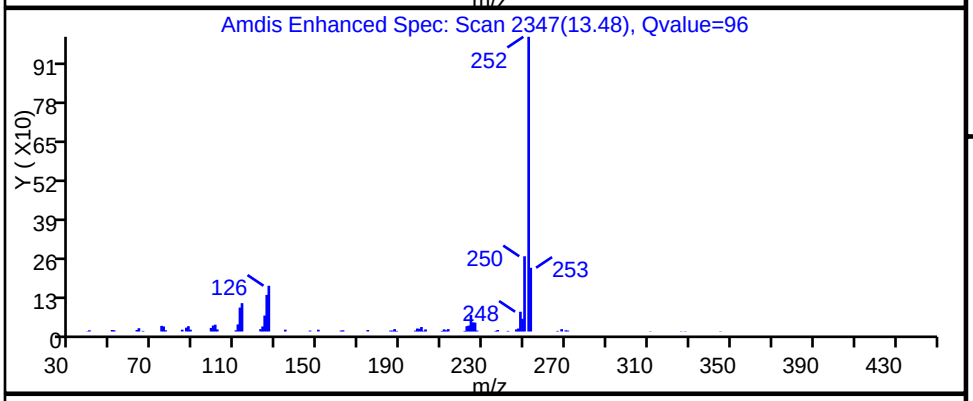
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

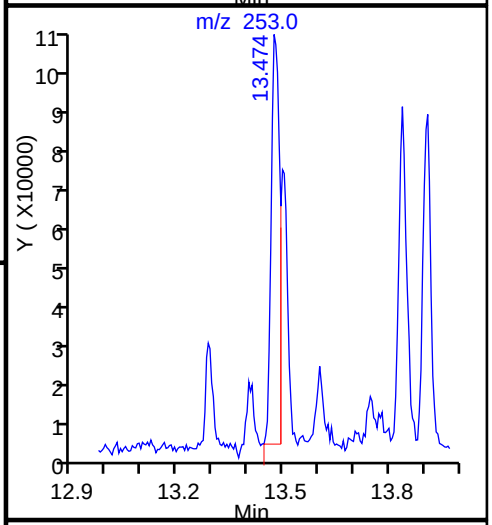
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

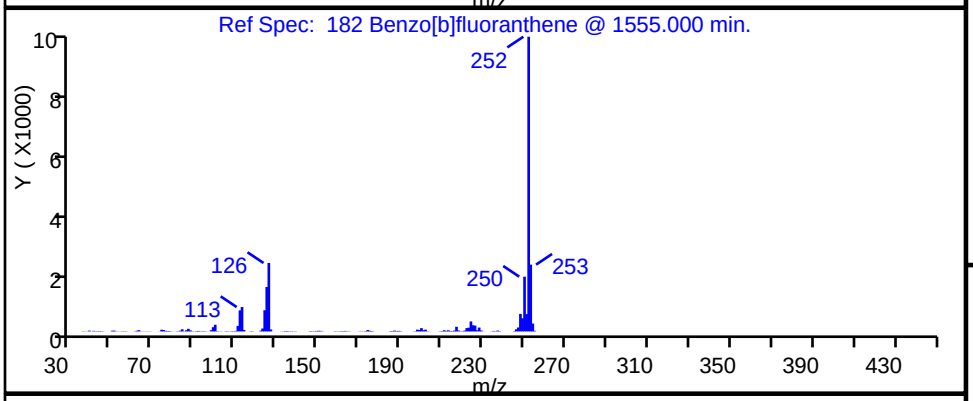
182 Benzo[b]fluoranthene, CAS: 205-99-2

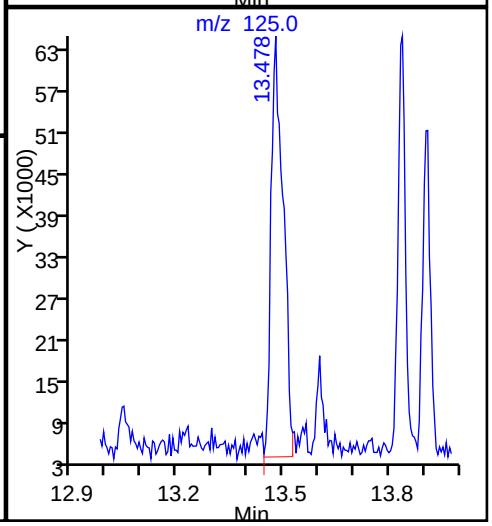


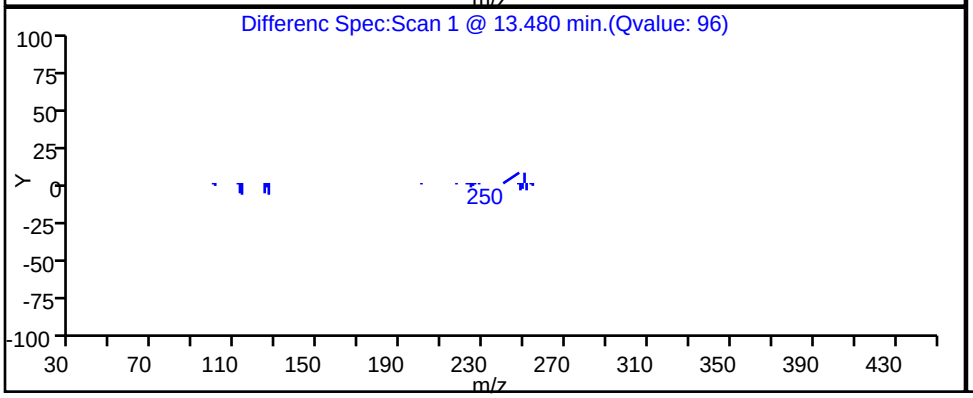












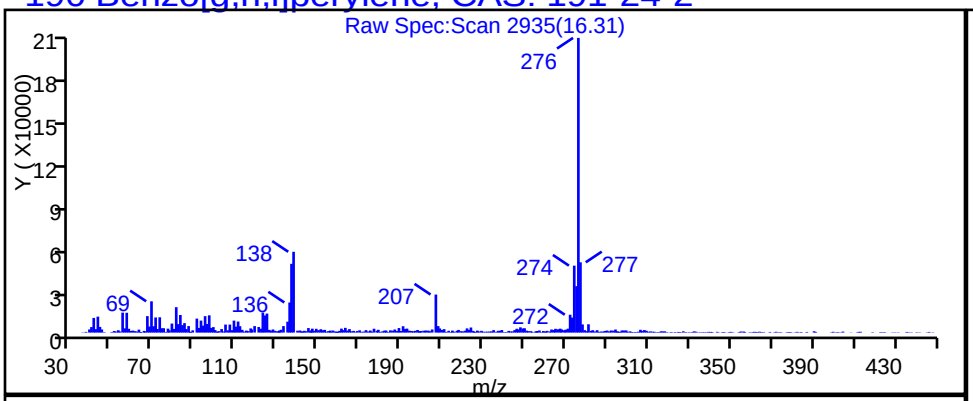
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

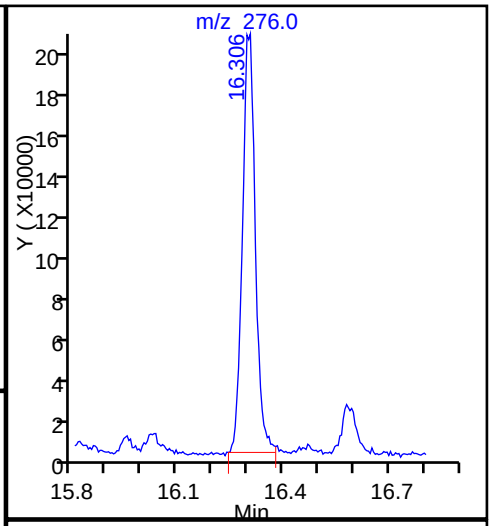
TestAmerica Canton

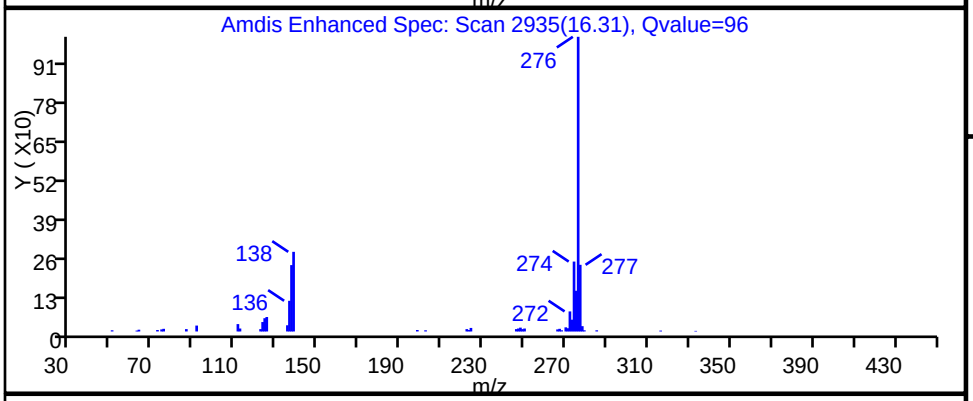
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

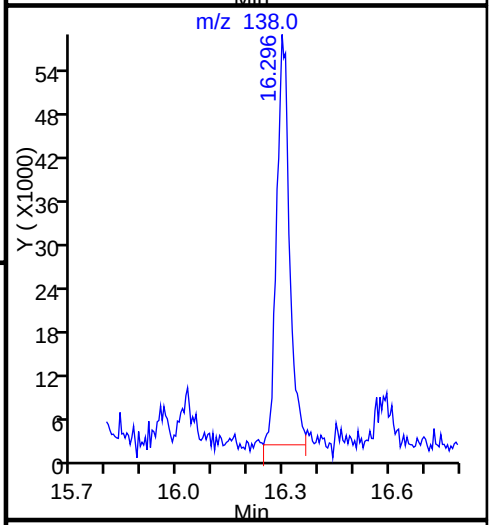
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

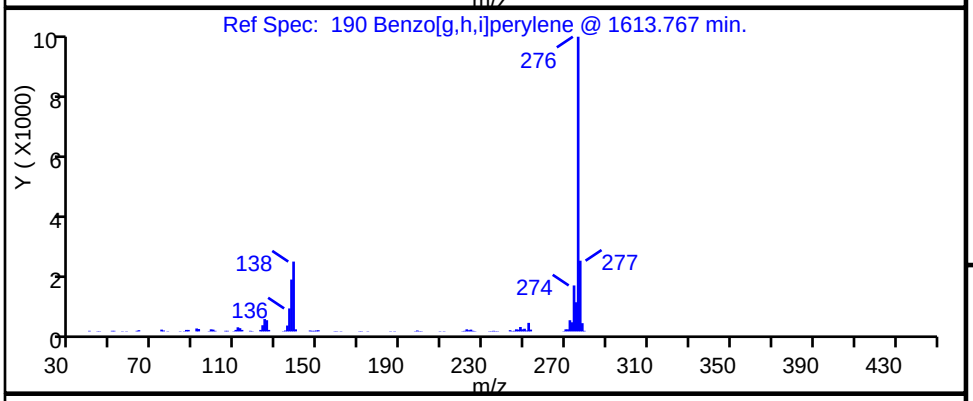
190 Benzo[g,h,i]perylene, CAS: 191-24-2

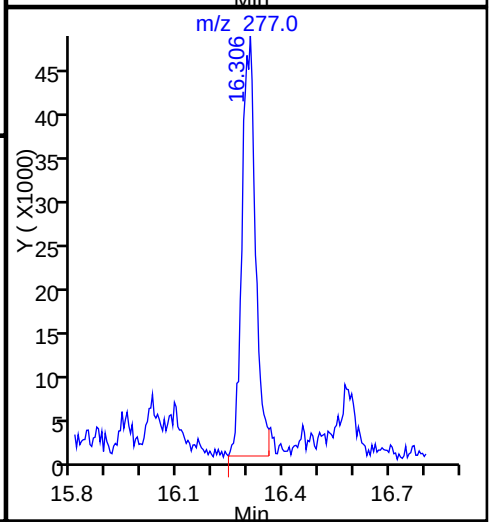


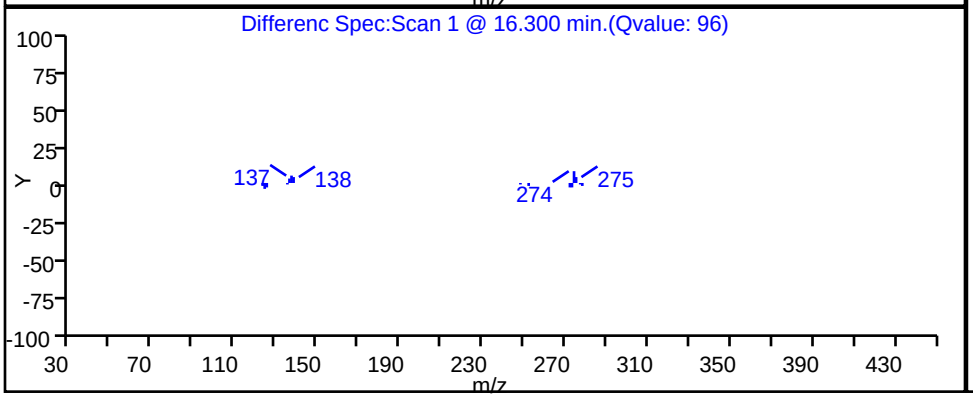












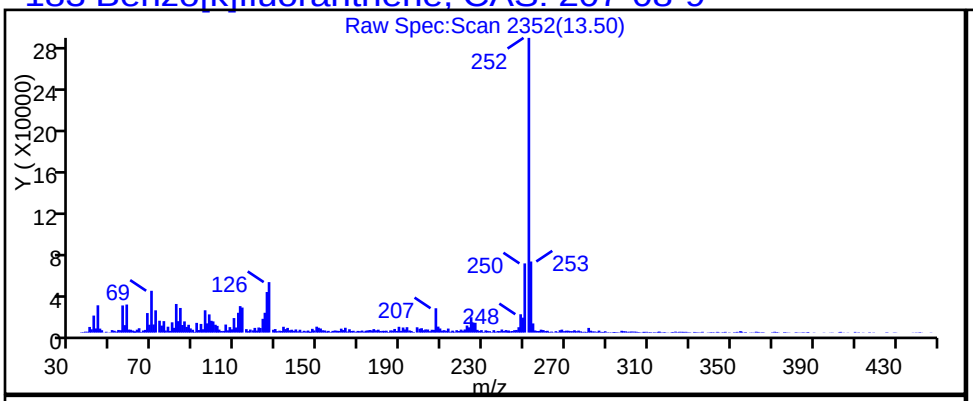
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

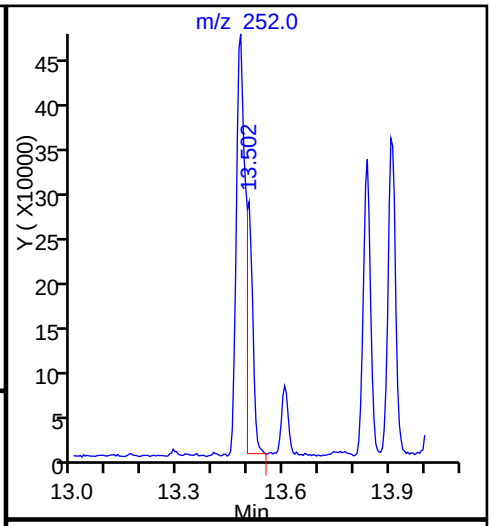
TestAmerica Canton

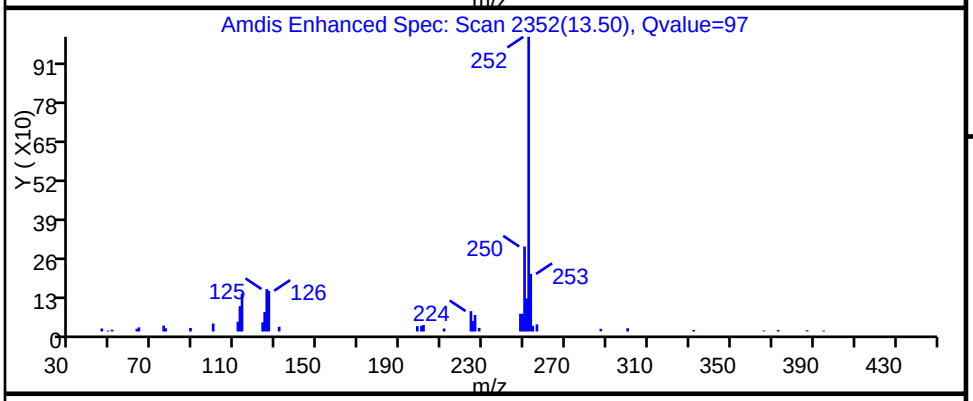
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

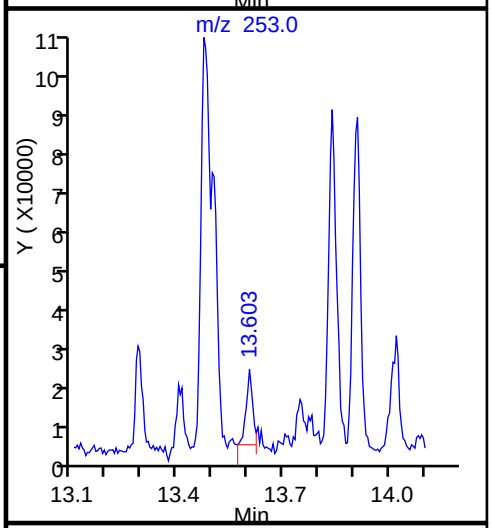
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

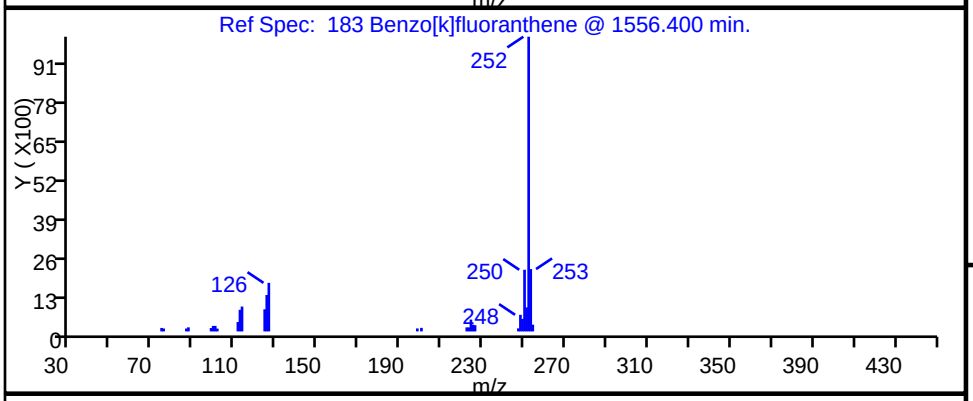
183 Benzo[k]fluoranthene, CAS: 207-08-9

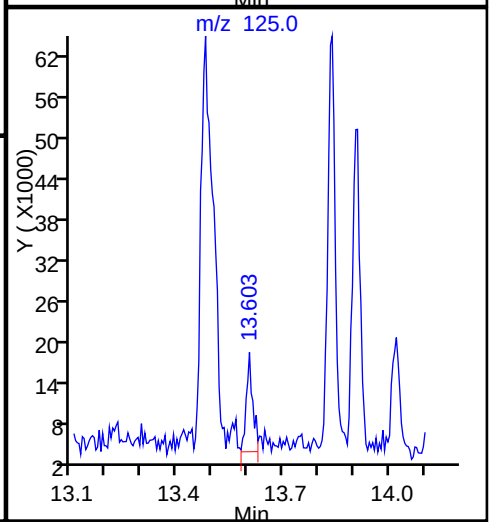


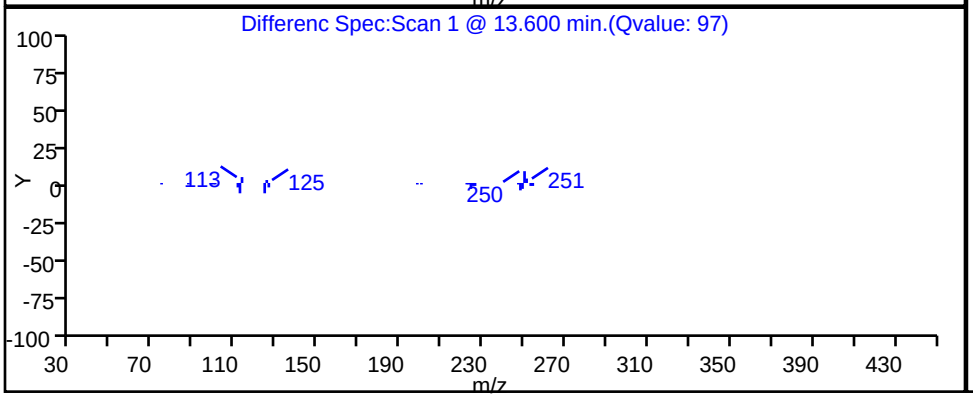












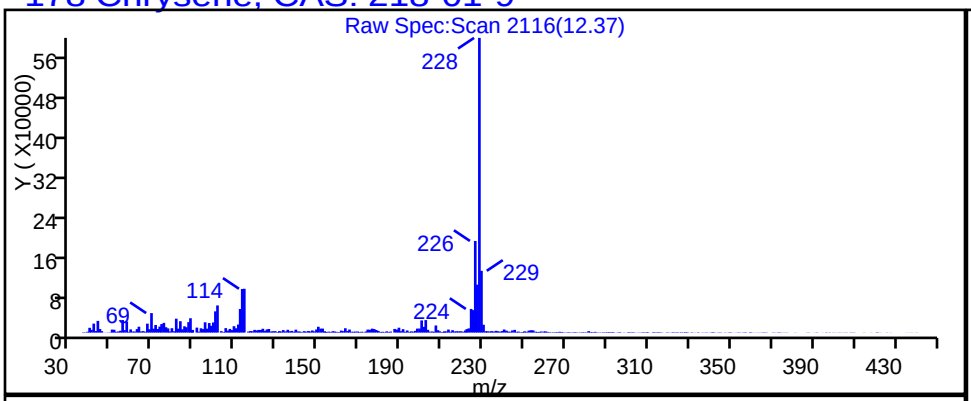
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

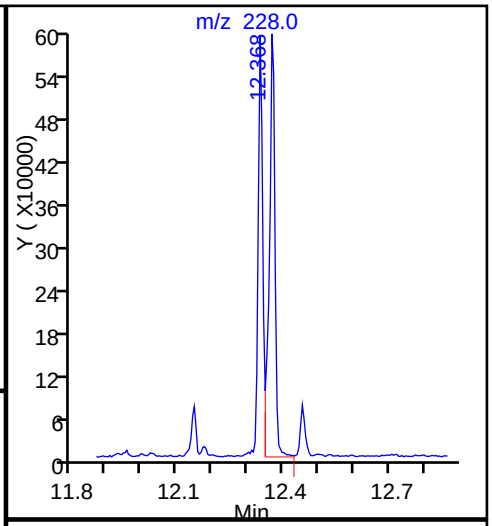
TestAmerica Canton

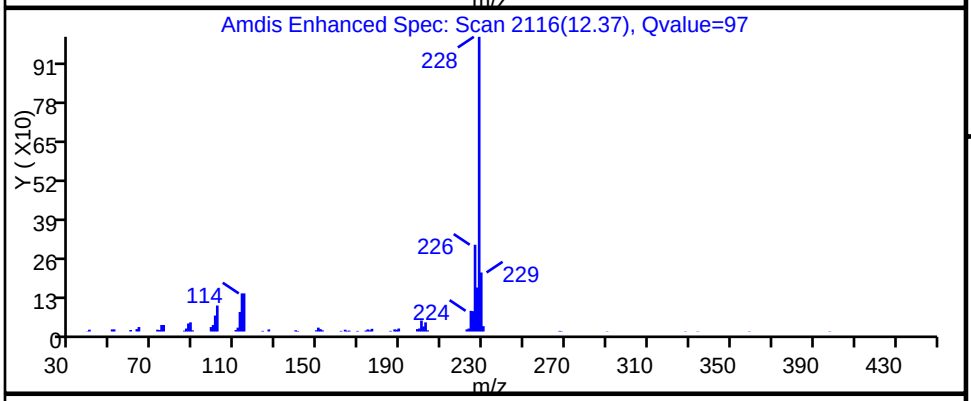
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

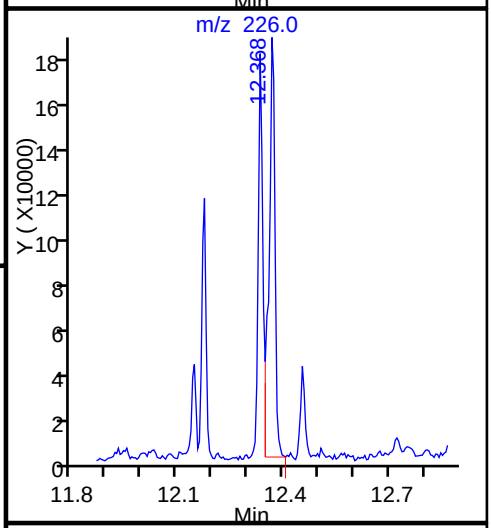
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

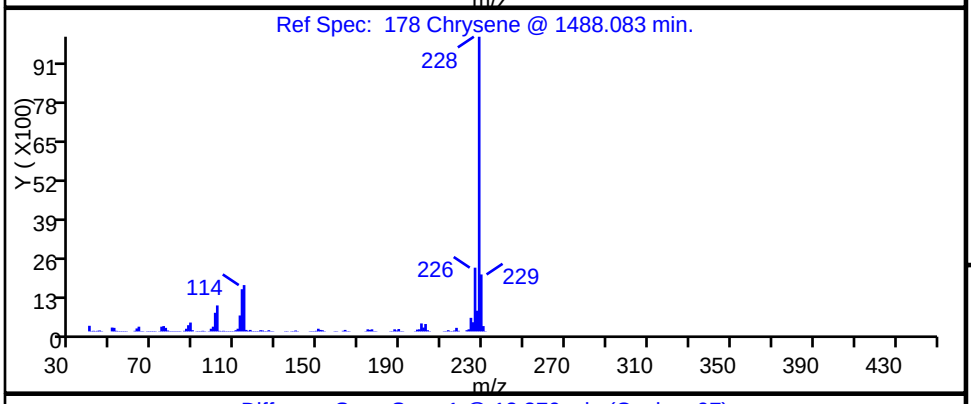
178 Chrysene, CAS: 218-01-9

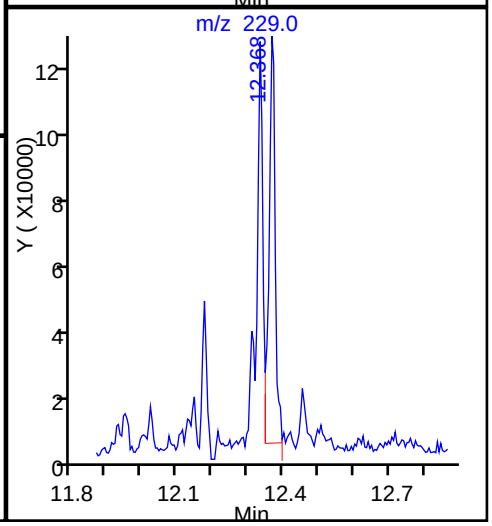


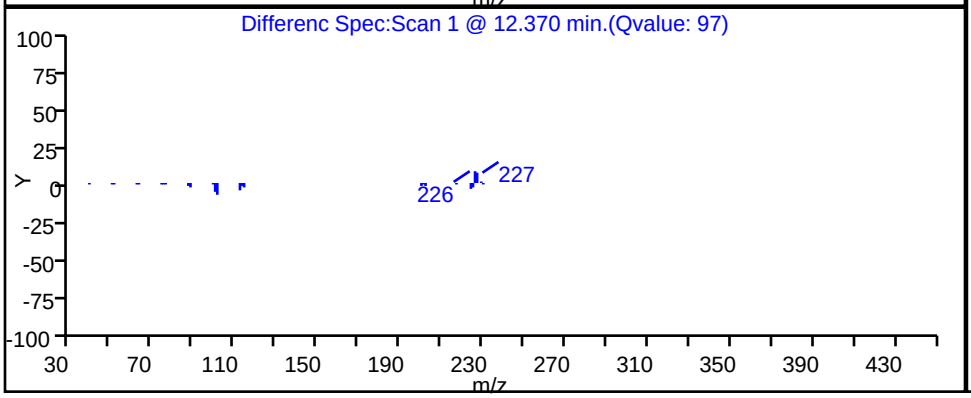












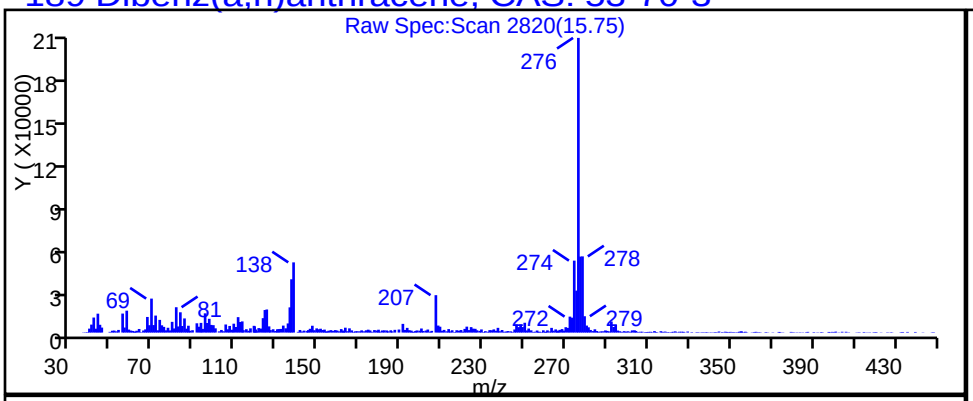
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

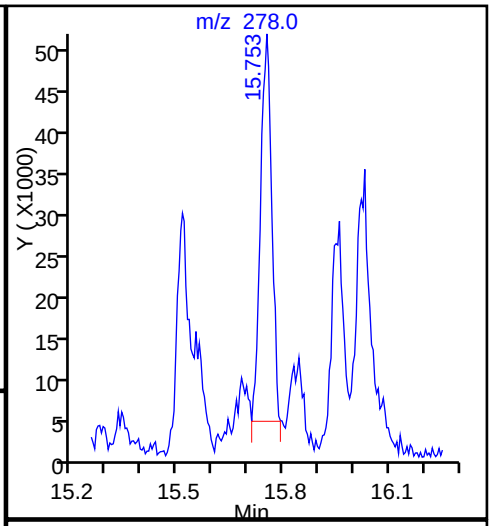
TestAmerica Canton

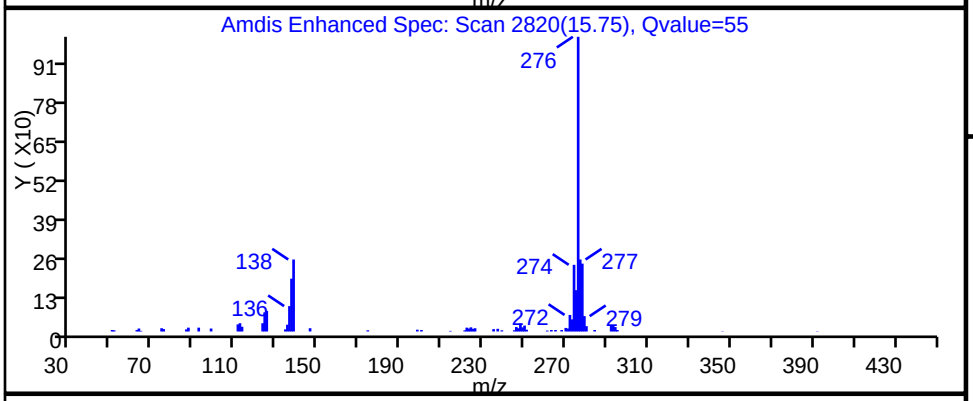
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

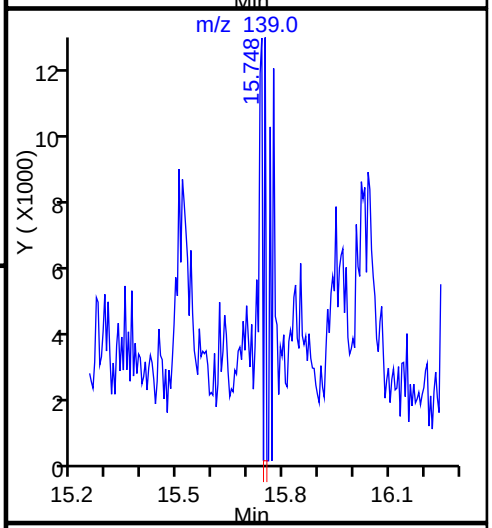
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

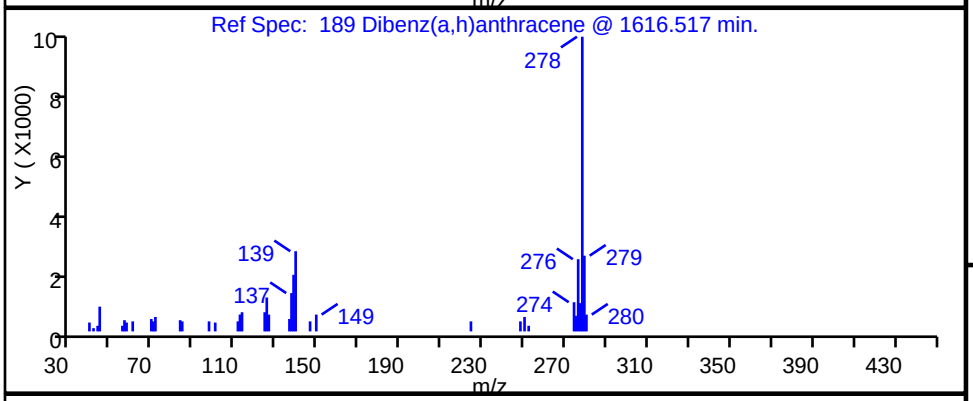
189 Dibenz(a,h)anthracene, CAS: 53-70-3

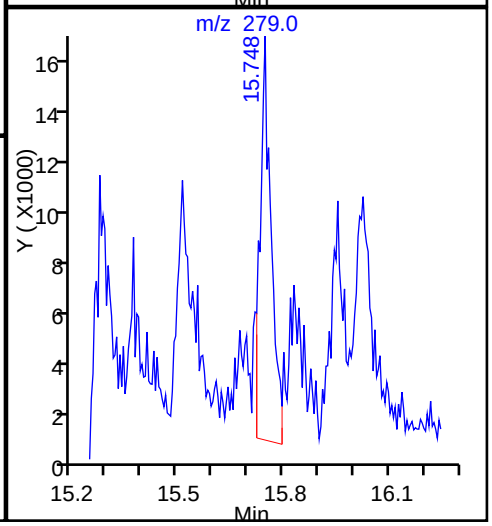


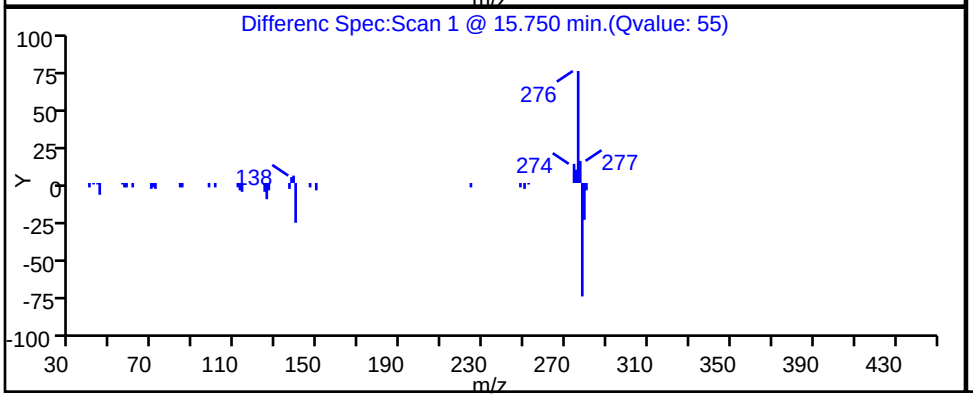












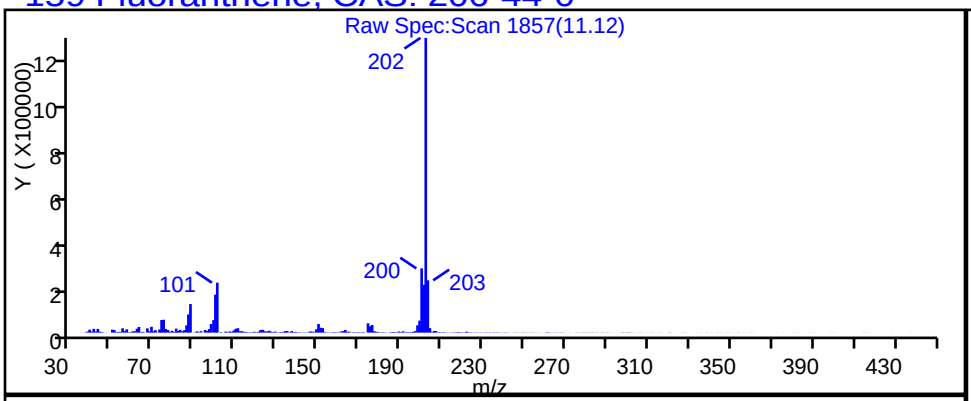
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

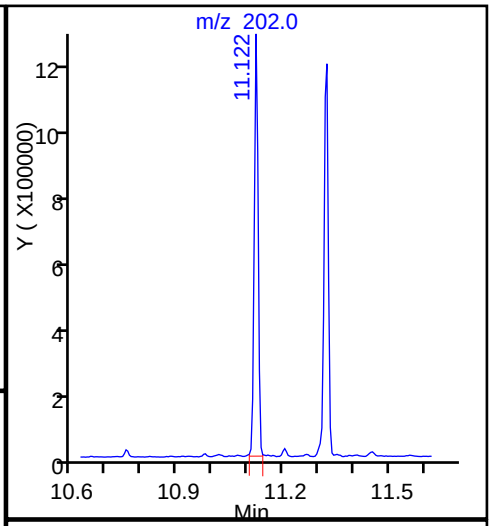
TestAmerica Canton

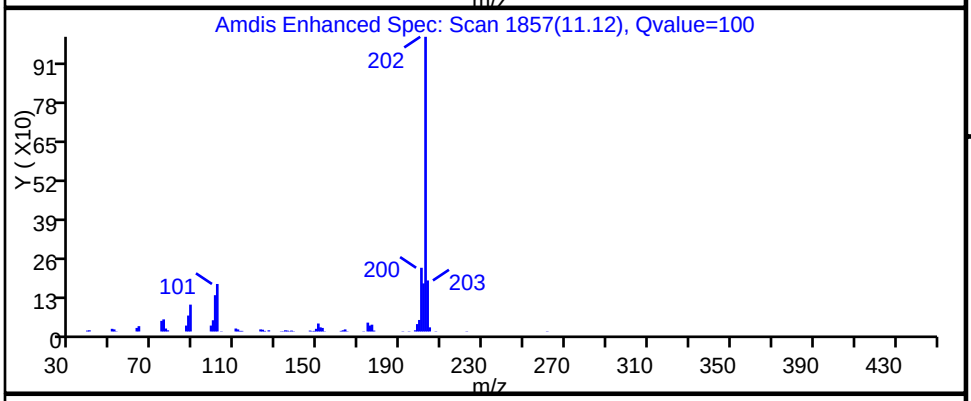
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

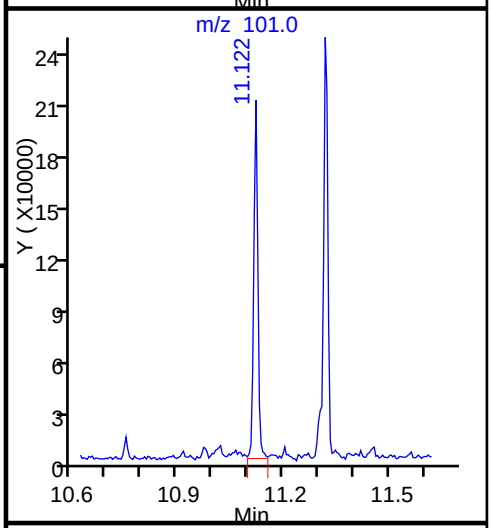
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

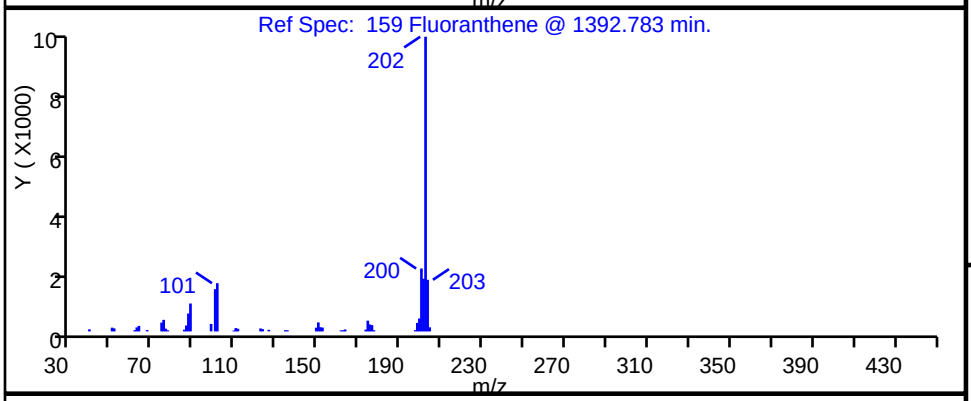
159 Fluoranthene, CAS: 206-44-0

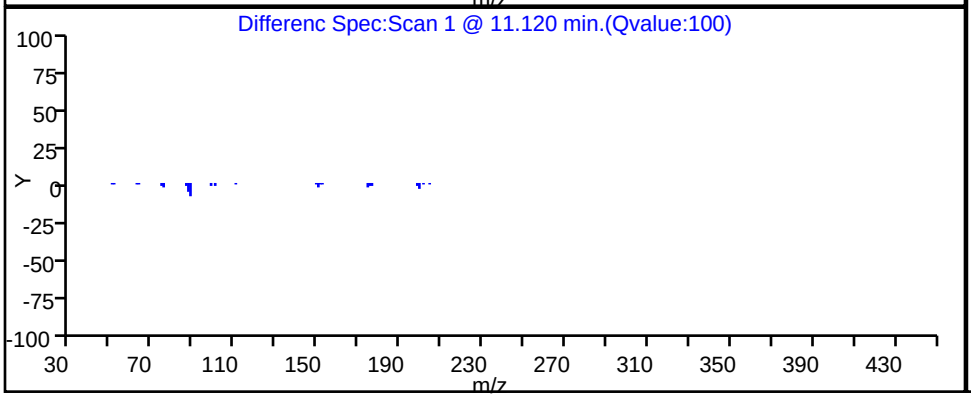


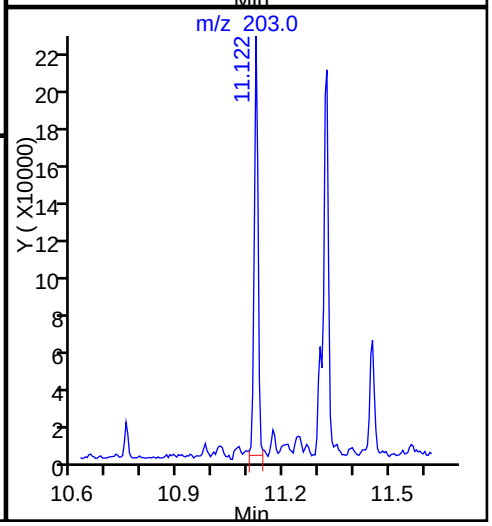












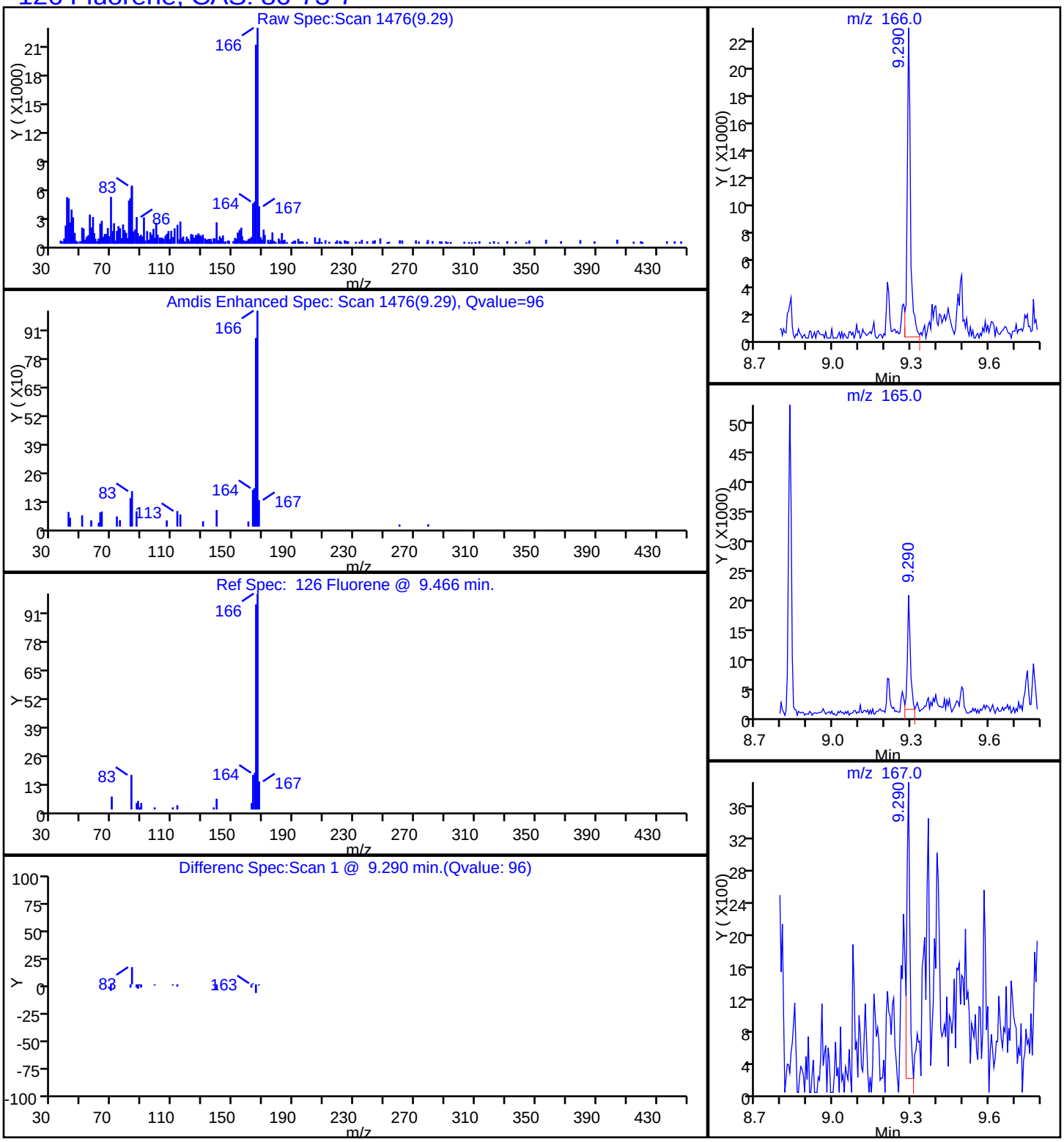
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

126 Fluorene, CAS: 86-73-7



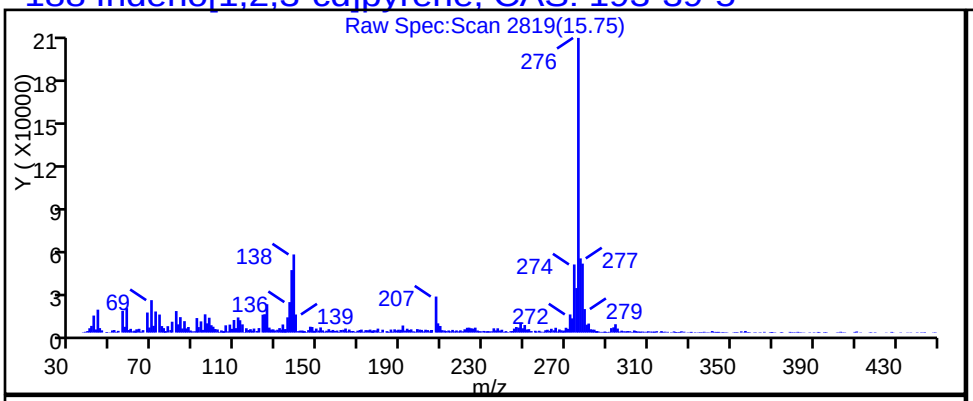
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

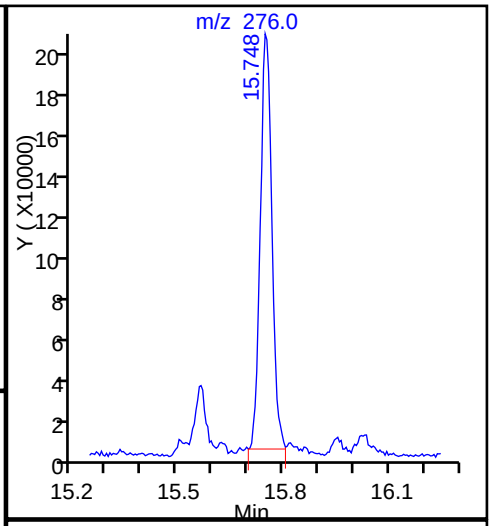
TestAmerica Canton

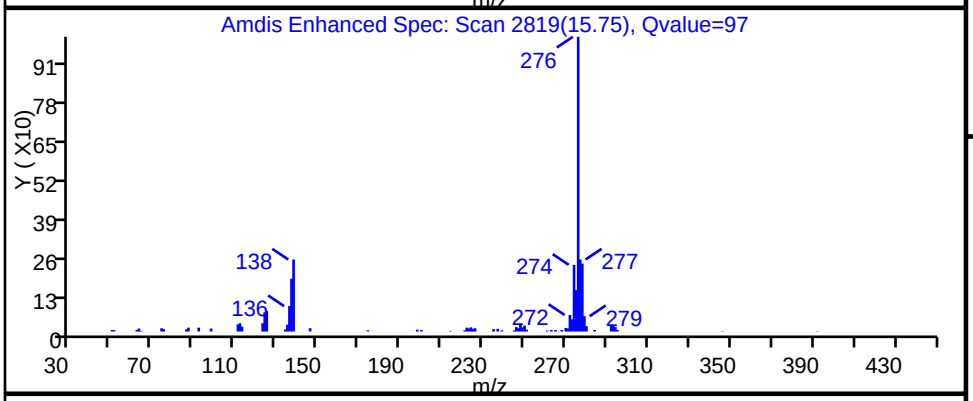
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

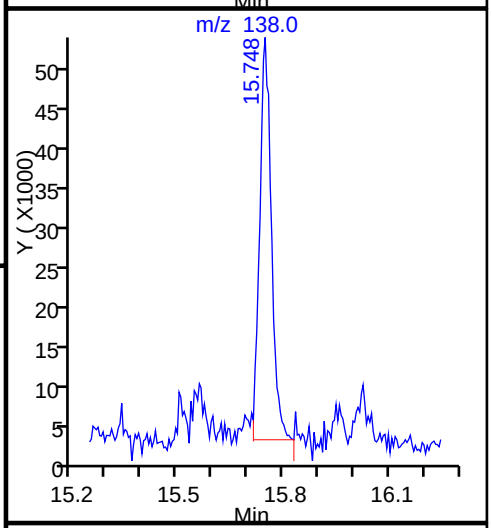
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

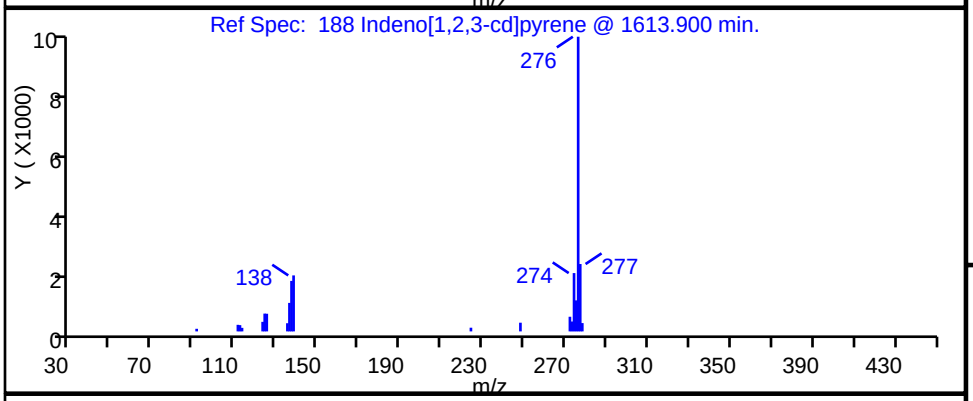
188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

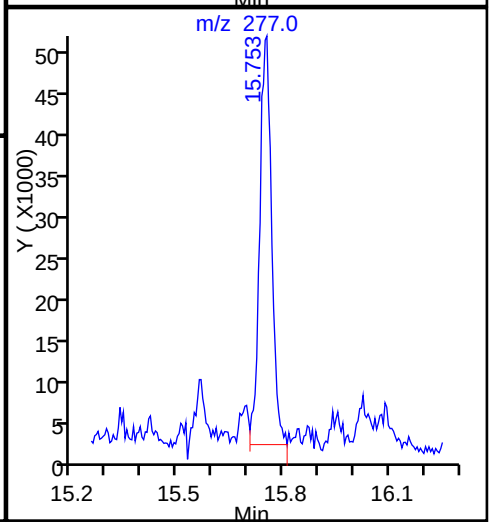


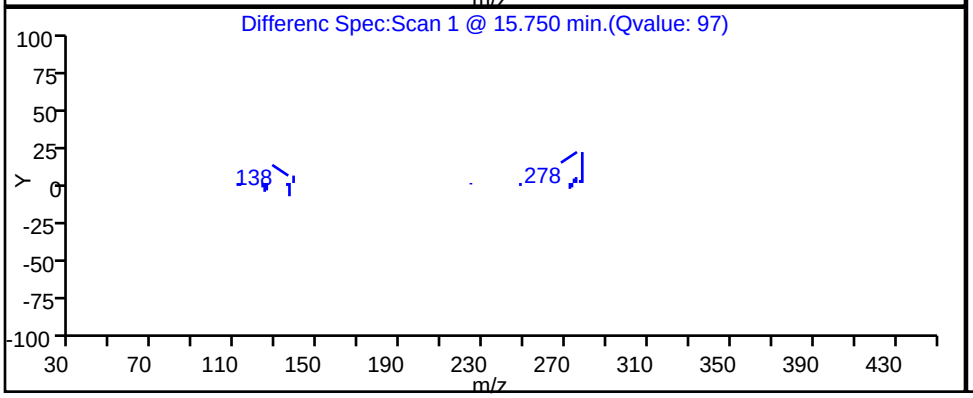












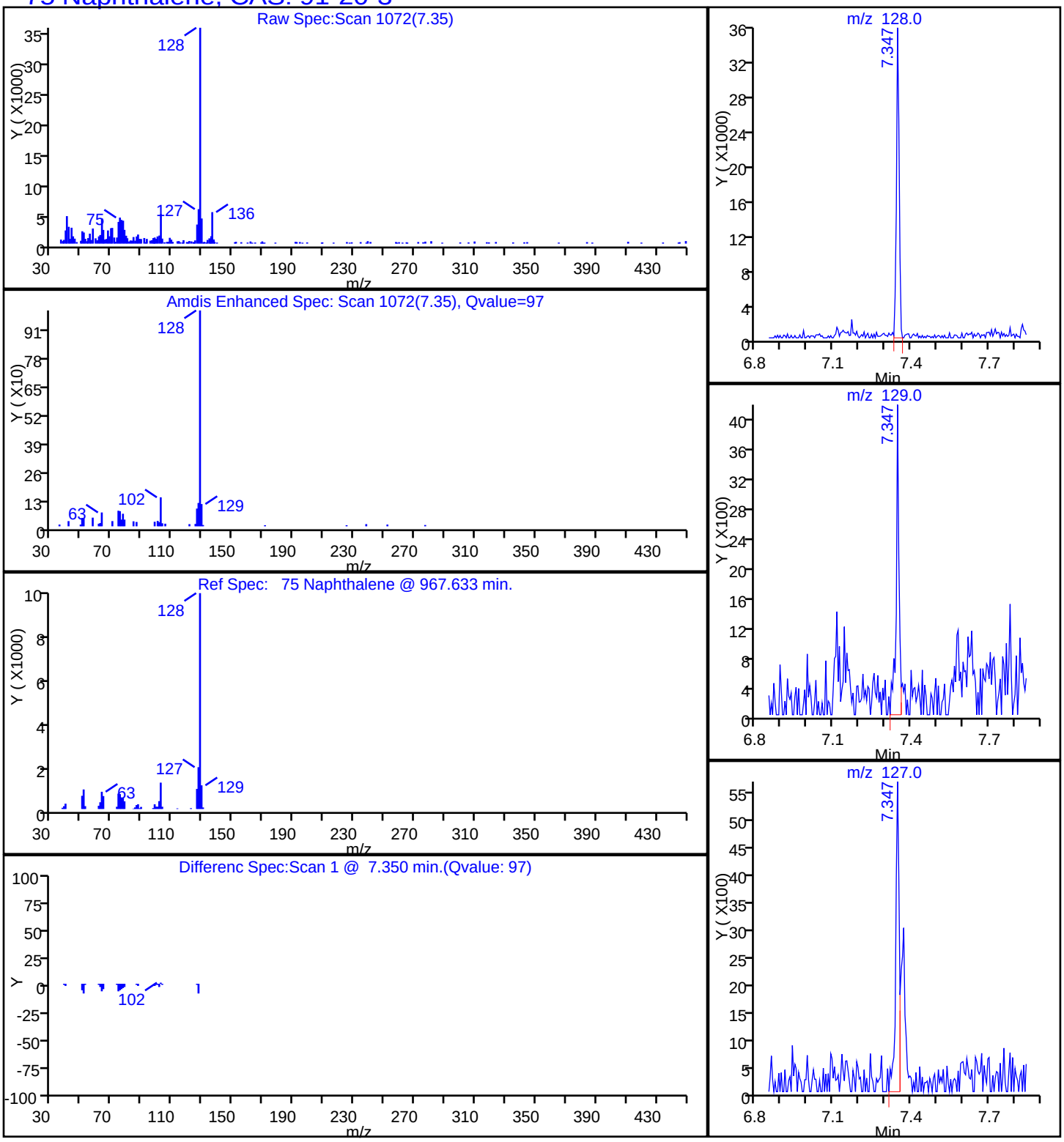
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

75 Naphthalene, CAS: 91-20-3



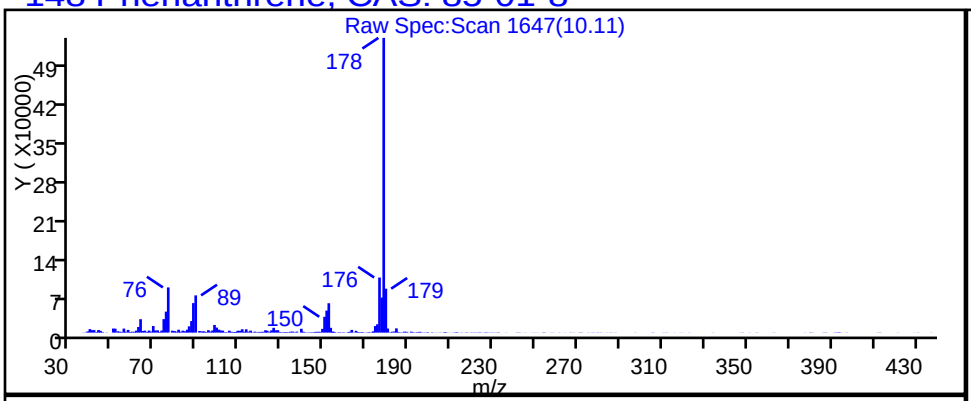
Report Date: 24-Aug-2015 09:27:04 Chrom Revision: 2.2 23-Jul-2015 08:26:08

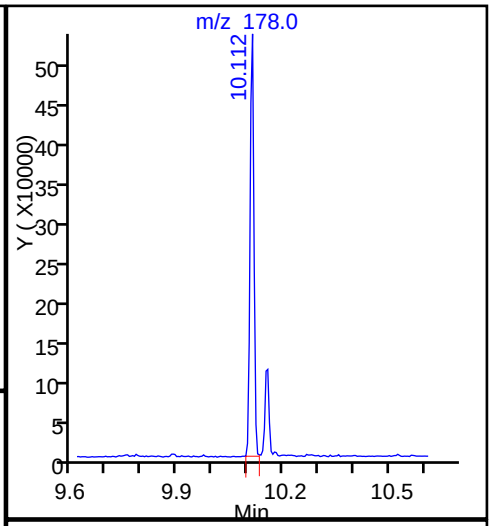
TestAmerica Canton

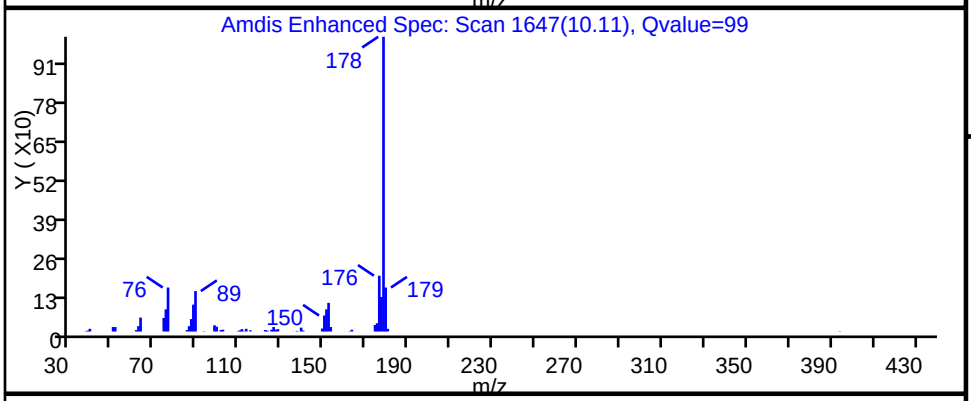
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

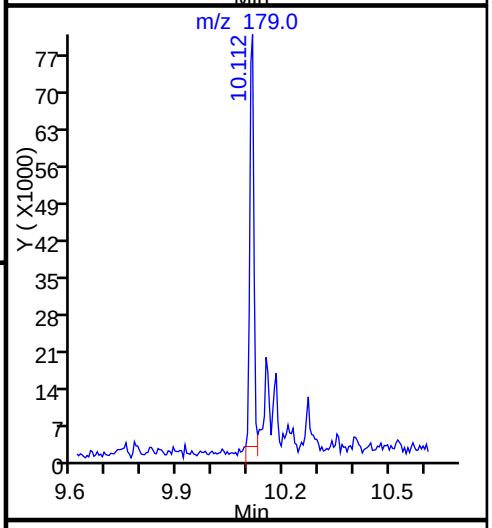
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

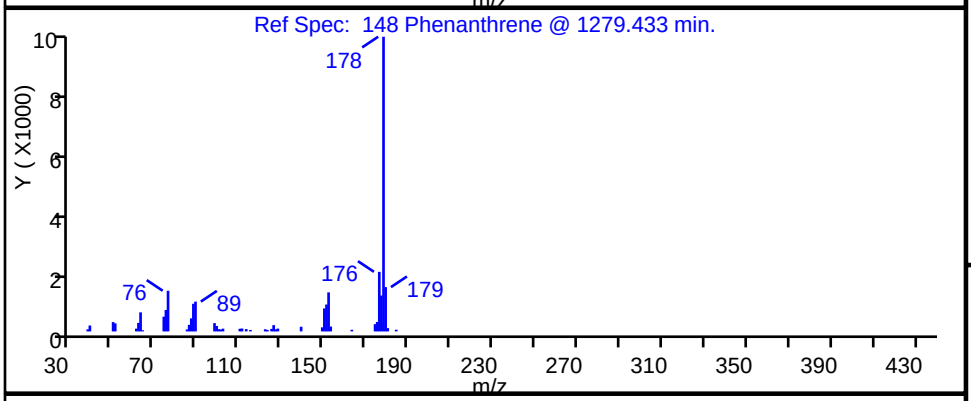
148 Phenanthrene, CAS: 85-01-8

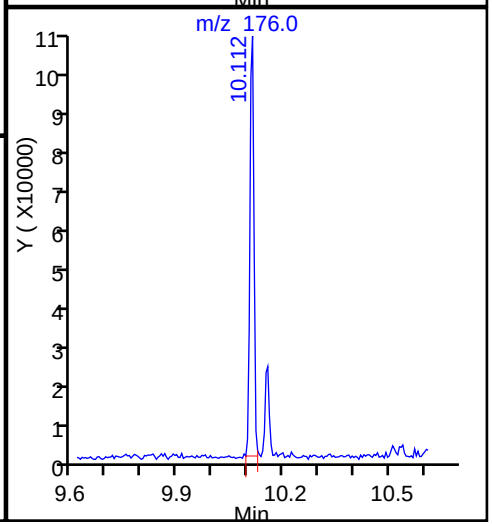


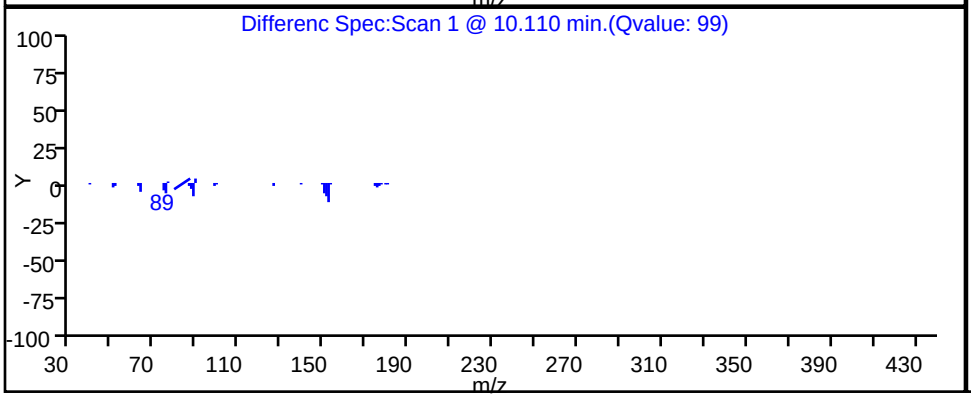












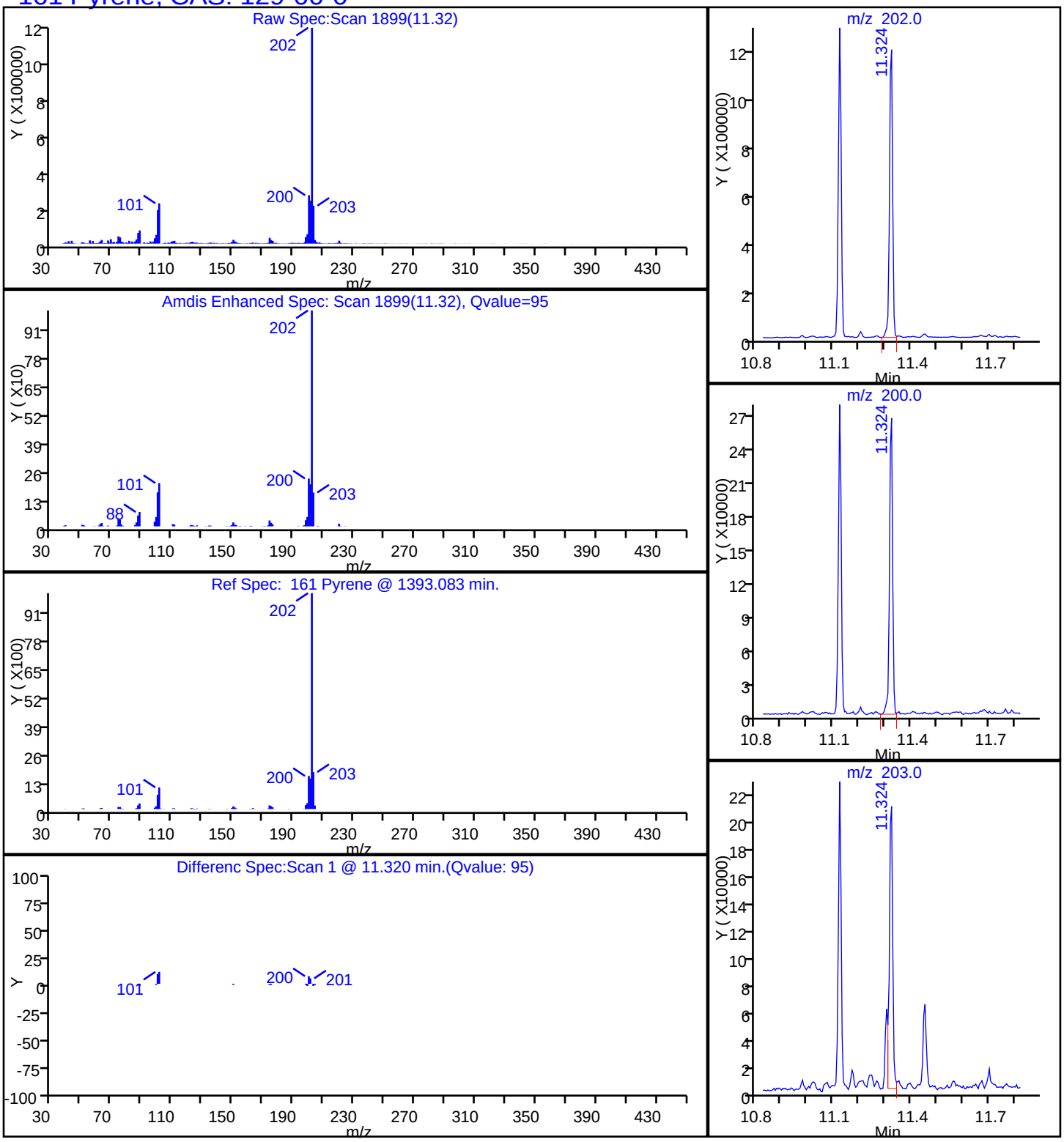
Report Date: 24-Aug-2015 09:27:05 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D

Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

161 Pyrene, CAS: 129-00-0



Manual Integration/User Assign Peak Report

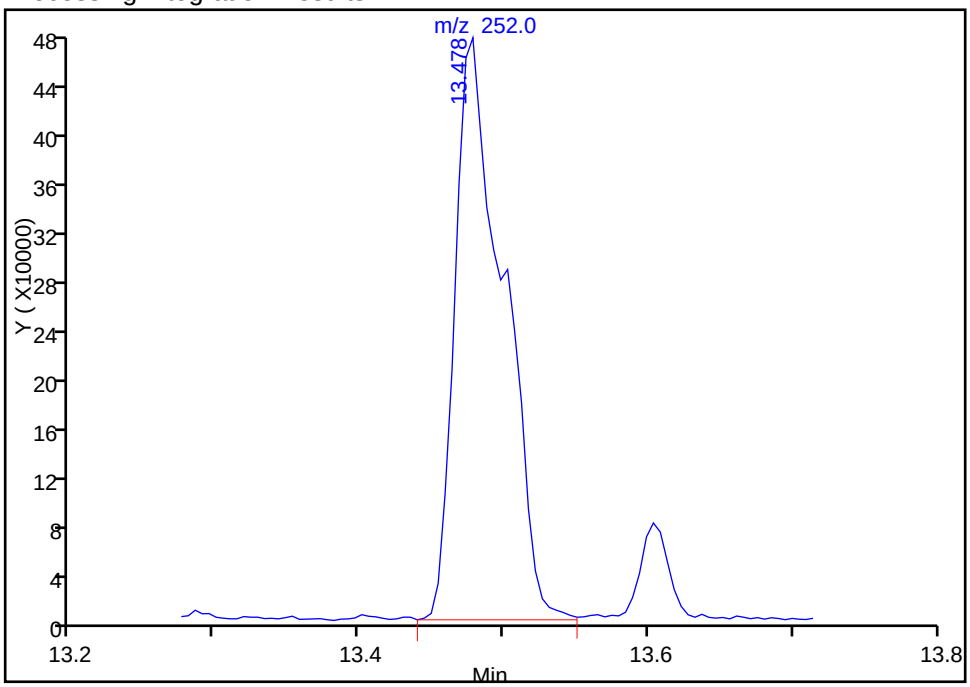
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D				
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

182 Benzo[b]fluoranthene, CAS: 205-99-2

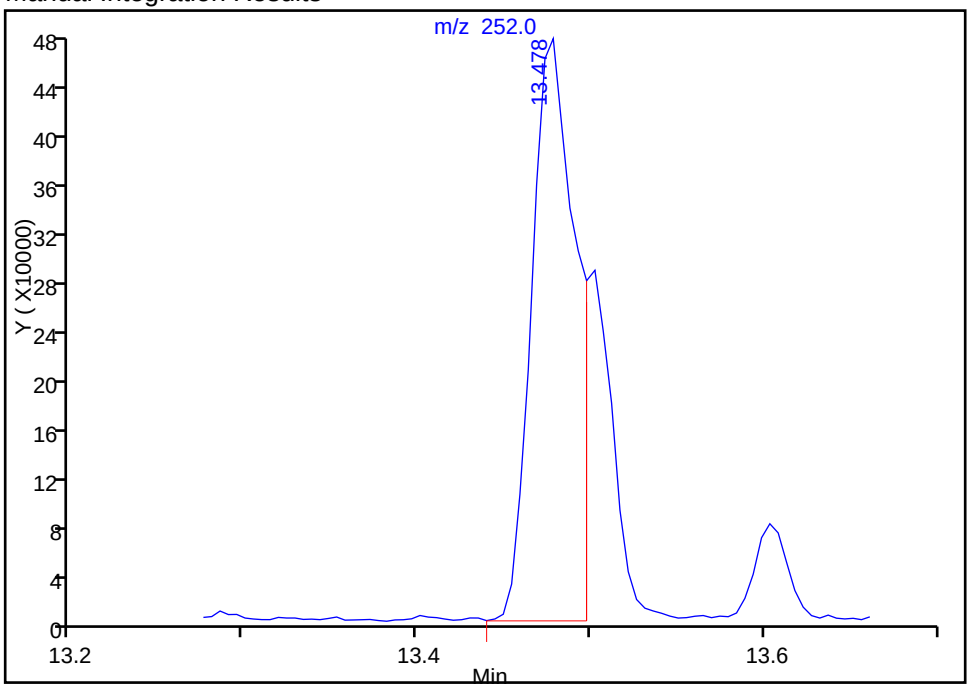
Processing Integration Results

RT: 13.48
Area: 1102293
Amount: 6.072831
Amount Units: ng/ul



Manual Integration Results

RT: 13.48
Area: 850661
Amount: 4.686522
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:50:15
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

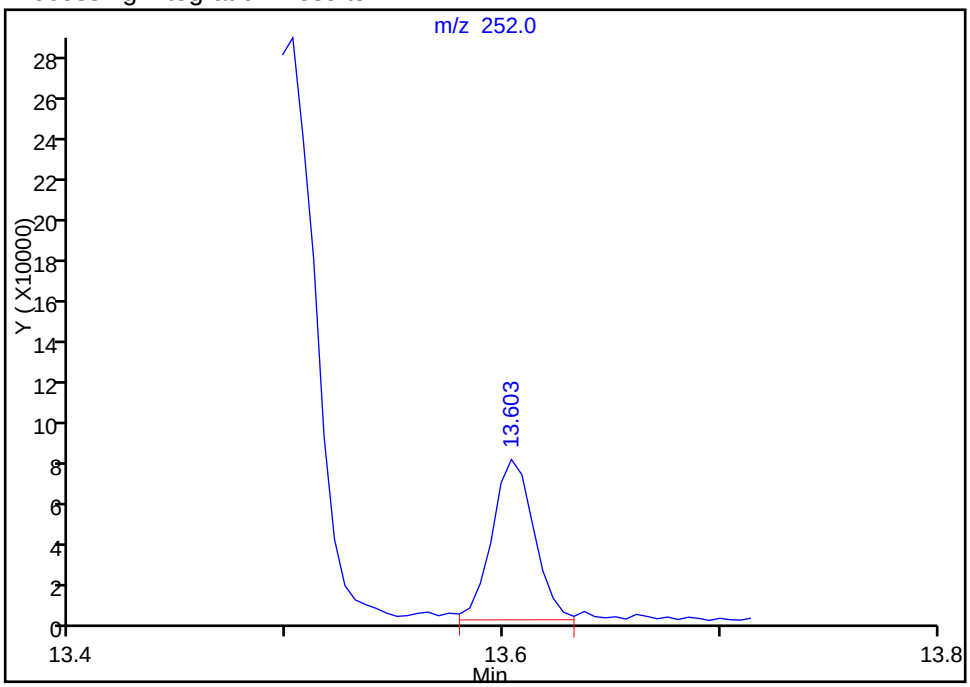
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822021.D				
Injection Date:	22-Aug-2015 18:16:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-1-A	Lab Sample ID:	240-54467-1		
Client ID:	D-VS-F-4-1				
Operator ID:	001710	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

183 Benzo[k]fluoranthene, CAS: 207-08-9

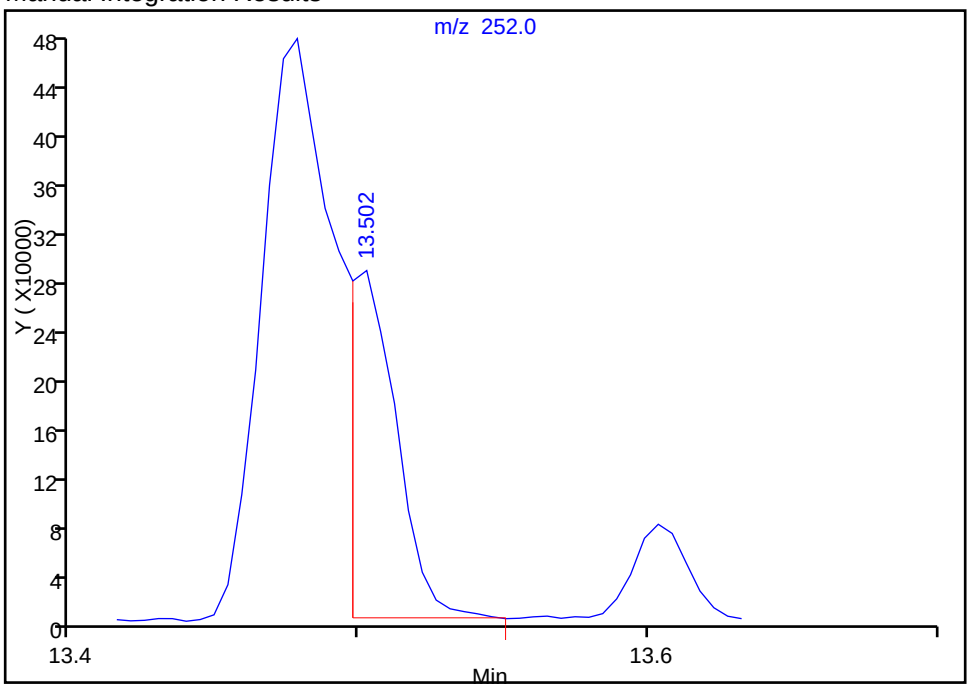
Processing Integration Results

RT: 13.60
Area: 106055
Amount: 0.577939
Amount Units: ng/ul



Manual Integration Results

RT: 13.50
Area: 322524
Amount: 1.757571
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:50:15
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-10-2 | Lab Sample ID: 240-54467-2

Matrix: Solid | Lab File ID: 50822022.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:30

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.24(g) | Date Analyzed: 08/22/2015 18:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 6.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.4	J	7.1	0.80
208-96-8	Acenaphthylene	6.1	J	7.1	0.37
120-12-7	Anthracene	12		7.1	0.82
56-55-3	Benzo[a]anthracene	43		7.1	0.67
50-32-8	Benzo[a]pyrene	47		7.1	0.68
205-99-2	Benzo[b]fluoranthene	58		7.1	0.62
191-24-2	Benzo[g,h,i]perylene	36		7.1	0.37
207-08-9	Benzo[k]fluoranthene	32		7.1	0.72
218-01-9	Chrysene	52		7.1	1.2
53-70-3	Dibenz(a,h)anthracene	0.70	U	7.1	0.70
206-44-0	Fluoranthene	81		7.1	0.58
86-73-7	Fluorene	6.6	J	7.1	0.56
193-39-5	Indeno[1,2,3-cd]pyrene	31		7.1	0.37
91-20-3	Naphthalene	12		7.1	0.87
85-01-8	Phenanthrene	47		7.1	0.77
129-00-0	Pyrene	76		7.1	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	51		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D
Lims ID: 240-54467-B-2-A Lab Sample ID: 240-54467-2
Client ID: D-VB-F-10-2
Sample Type: Client
Inject. Date: 22-Aug-2015 18:41:30 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-022
Misc. Info.: 240-54467-B-2-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 08:51:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.213	6.214	-0.001	94	138990	4.00	
* 2 Naphthalene-d8	136	7.329	7.330	-0.001	98	540976	4.00	
* 3 Acenaphthene-d10	164	8.829	8.830	-0.001	91	317759	4.00	
* 4 Phenanthrene-d10	188	10.089	10.090	-0.001	98	544692	4.00	
* 5 Chrysene-d12	240	12.344	12.345	-0.001	97	609354	4.00	
* 6 Perylene-d12	264	13.984	13.985	-0.001	98	567194	4.00	
$ 7 2-Fluorophenol	112	5.006	4.983	0.023	94	359386	5.91	
$ 8 Phenol-d5	99	5.891	5.882	0.009	97	559854	6.51	
$ 9 Nitrobenzene-d5	82	6.689	6.690	-0.001	84	513712	4.90	
$ 10 2-Fluorobiphenyl (Surr)	172	8.233	8.234	-0.001	98	642946	6.19	
$ 11 2,4,6-Tribromophenol	330	9.497	9.499	-0.002	80	52828	5.11	
$ 12 Terphenyl-d14	244	11.406	11.408	-0.002	99	895717	7.99	
75 Naphthalene	128	7.348	7.349	-0.001	95	26652	0.1723	
109 Acenaphthylene	152	8.709	8.715	-0.006	97	12843	0.0865	
112 Acenaphthene	153	8.858	8.859	-0.001	45	5926	0.0621	
126 Fluorene	166	9.291	9.292	-0.002	93	10305	0.0941	
148 Phenanthrene	178	10.108	10.114	-0.006	98	115707	0.6699	
149 Anthracene	178	10.151	10.157	-0.006	98	30419	0.1771	
159 Fluoranthene	202	11.123	11.124	-0.001	99	200104	1.15	
161 Pyrene	202	11.320	11.321	-0.001	95	190087	1.08	
177 Benzo[a]anthracene	228	12.334	12.336	-0.002	97	113742	0.6049	
178 Chrysene	228	12.368	12.369	-0.001	97	129948	0.7366	
182 Benzo[b]fluoranthene	252	13.474	13.475	-0.001	96	138908	0.8265	
183 Benzo[k]fluoranthene	252	13.498	13.509	-0.011	90	77162	0.4541	M
184 Benzo[a]pyrene	252	13.907	13.908	-0.001	80	106186	0.6638	
188 Indeno[1,2,3-cd]pyrene	276	15.754	15.755	-0.001	91	72656	0.4370	
189 Dibenz(a,h)anthracene	278		15.760				ND	
190 Benzo[g,h,i]perylene	276	16.307	16.303	0.004	81	71472	0.5175	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

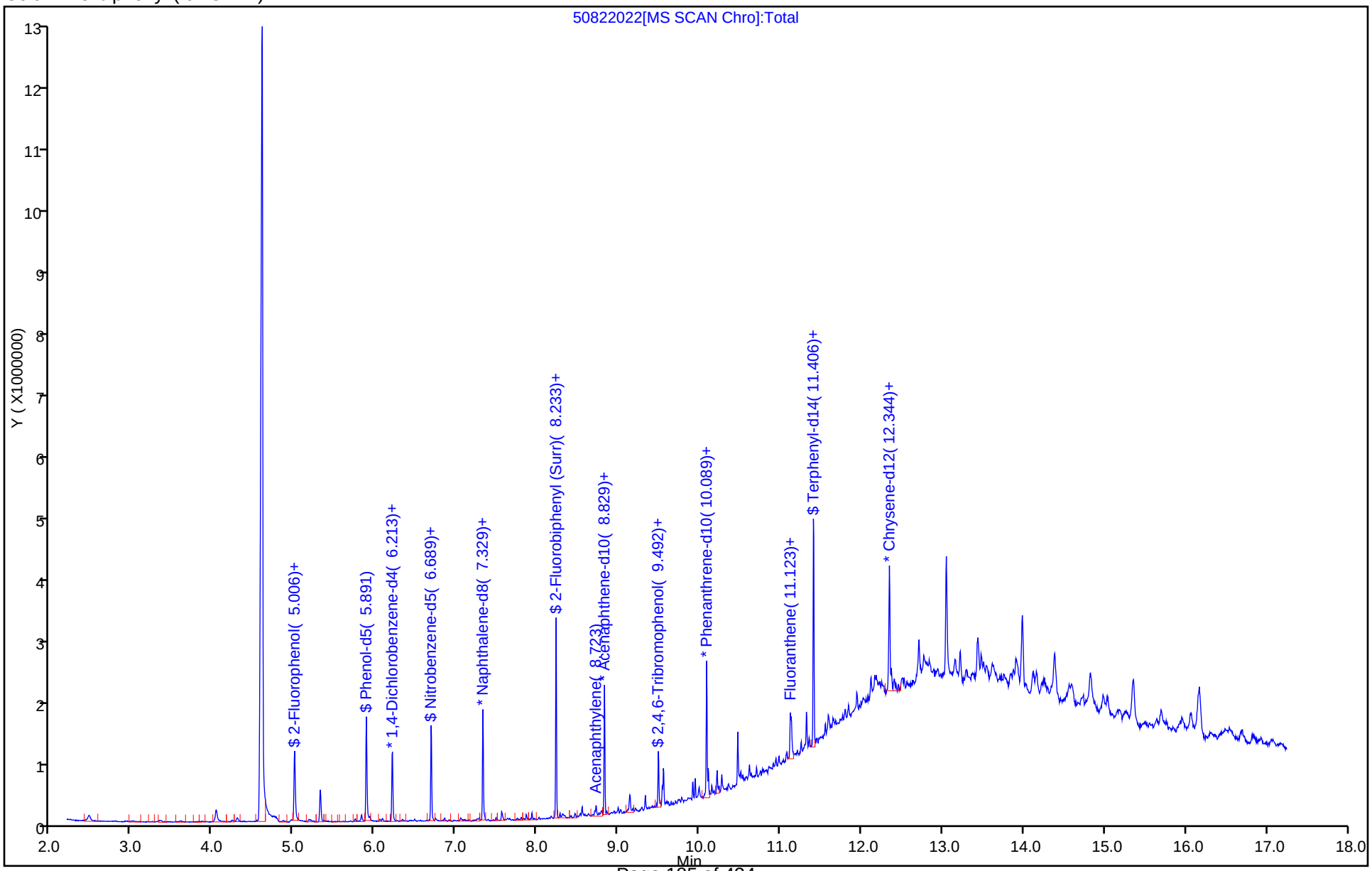
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2	Worklist Smp#:	22
Client ID:	D-VB-F-10-2				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



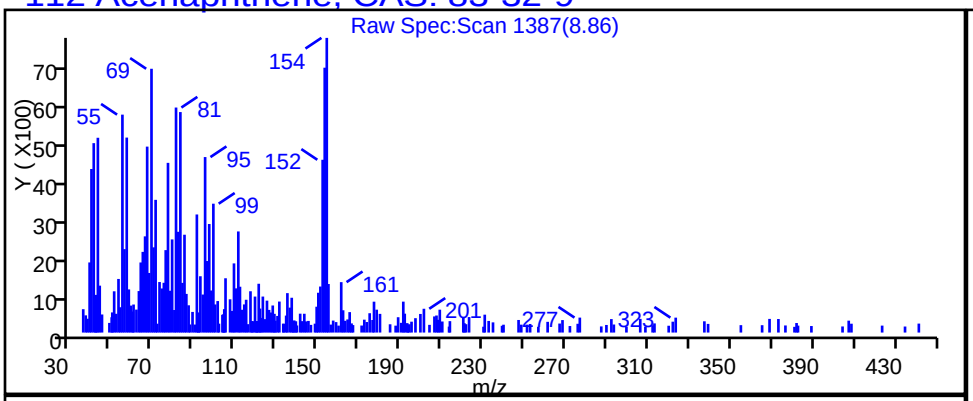
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

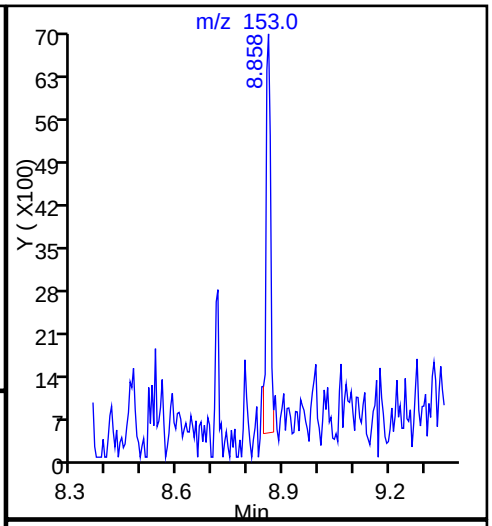
TestAmerica Canton

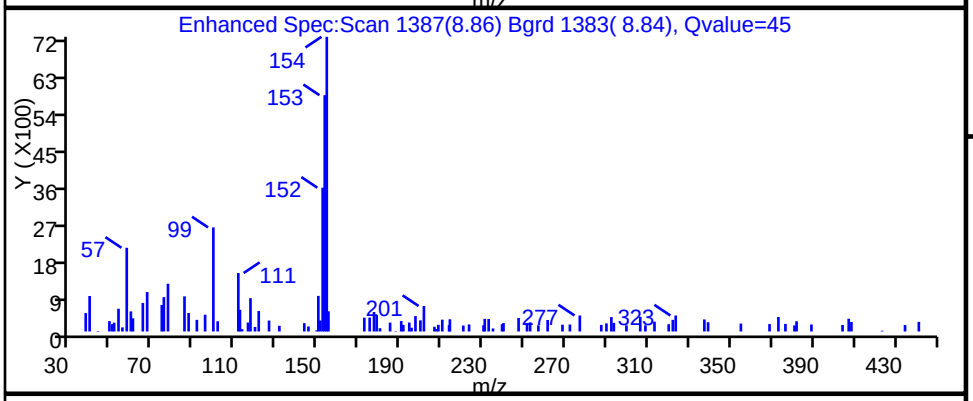
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

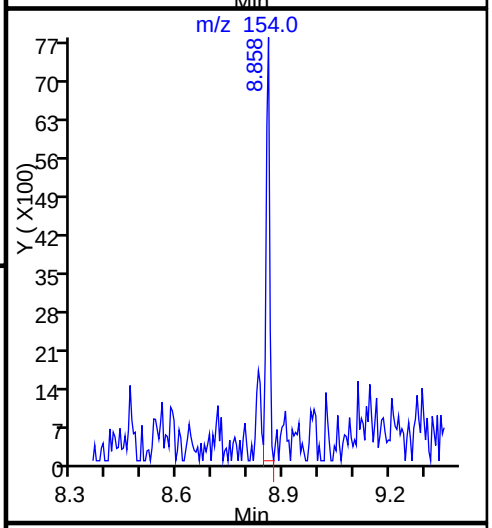
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

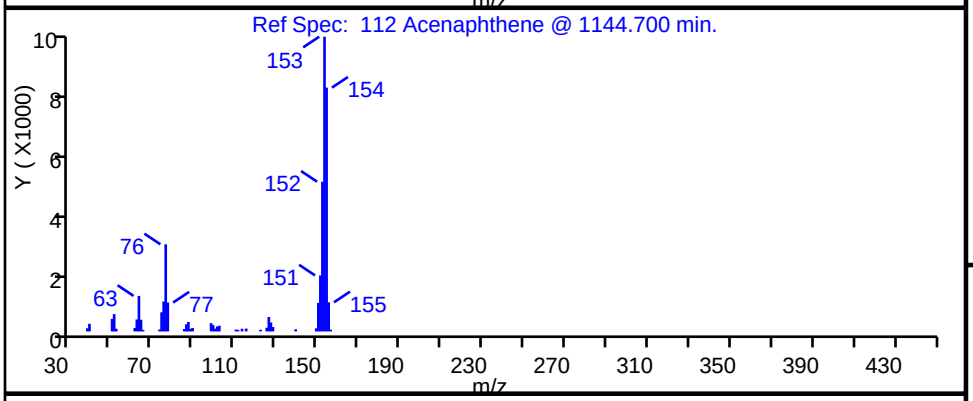
112 Acenaphthene, CAS: 83-32-9

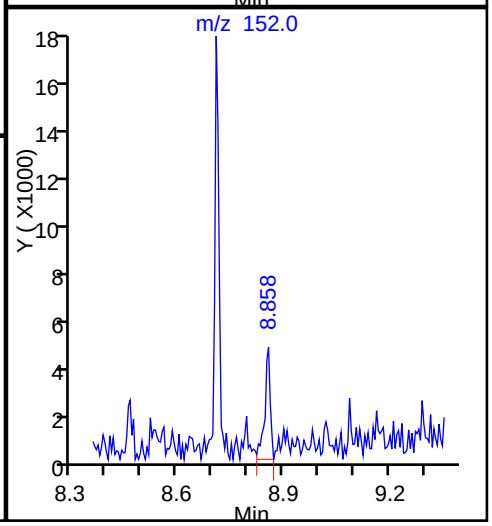


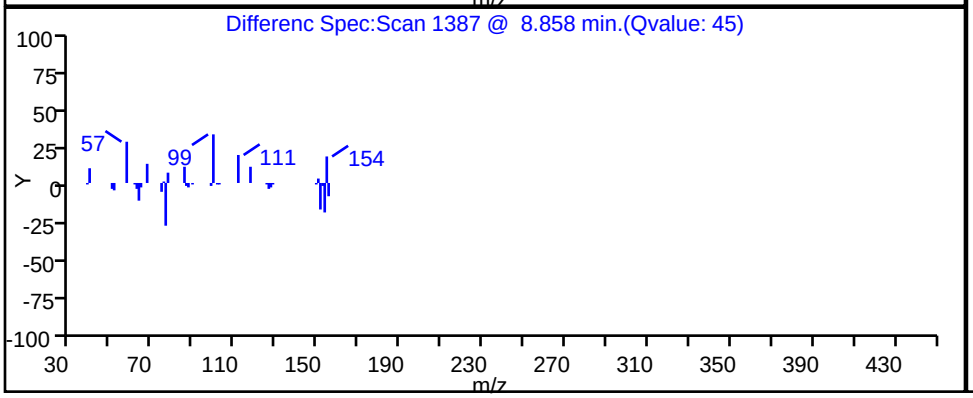












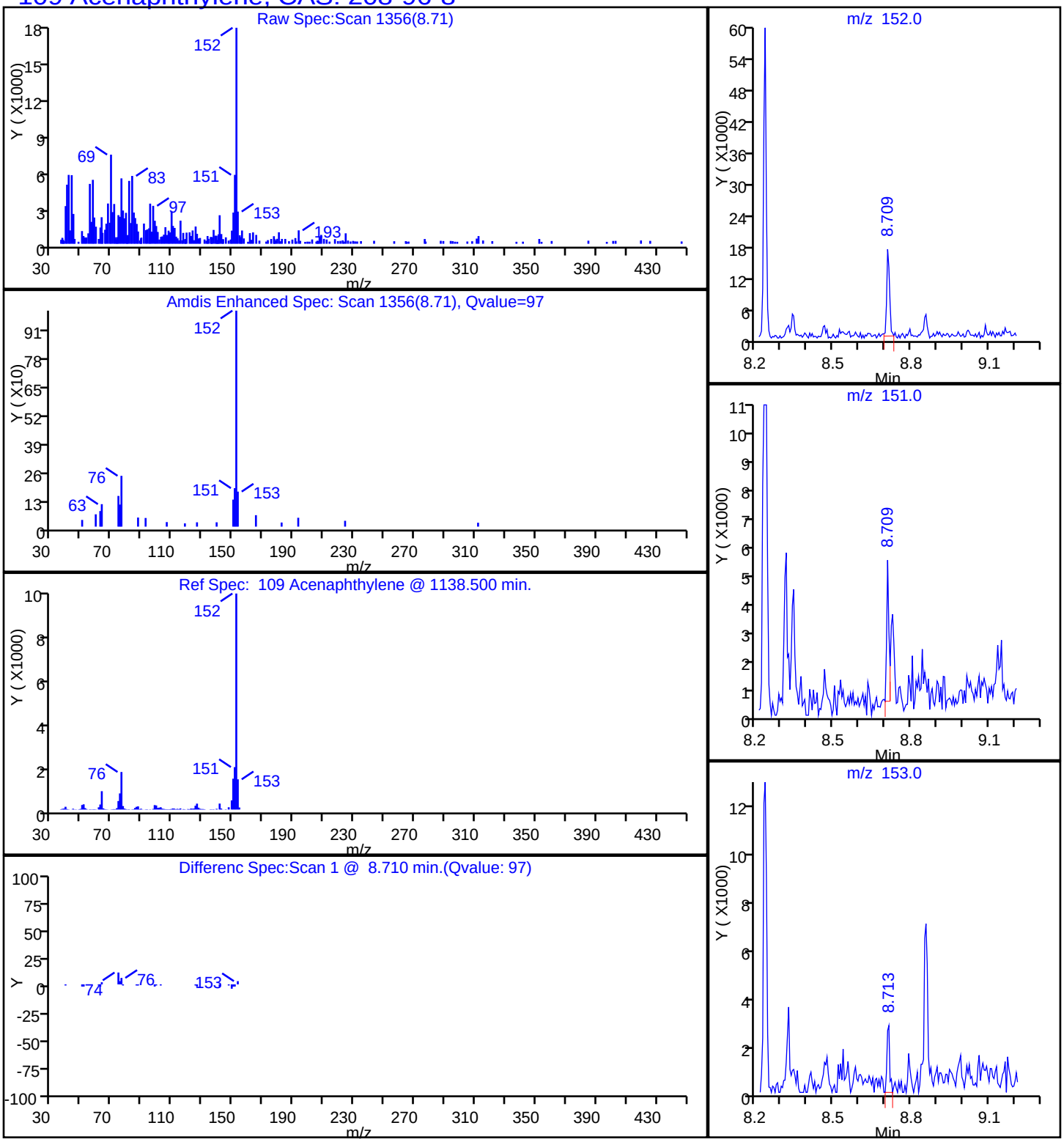
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

109 Acenaphthylene, CAS: 208-96-8



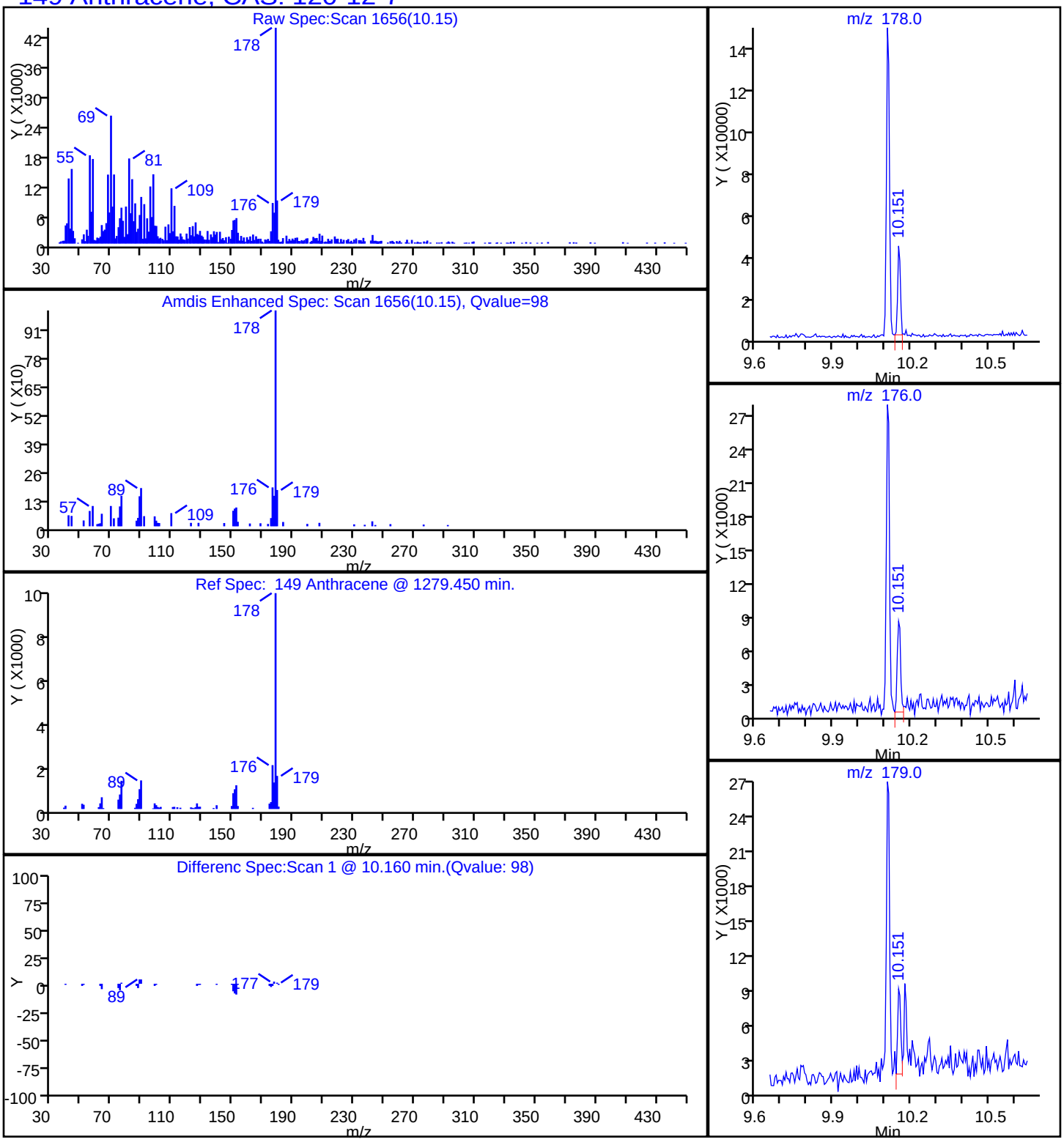
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

149 Anthracene, CAS: 120-12-7



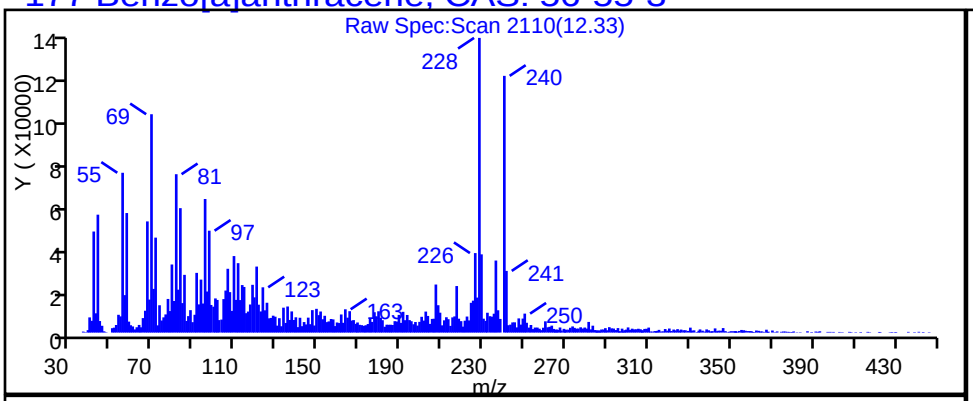
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

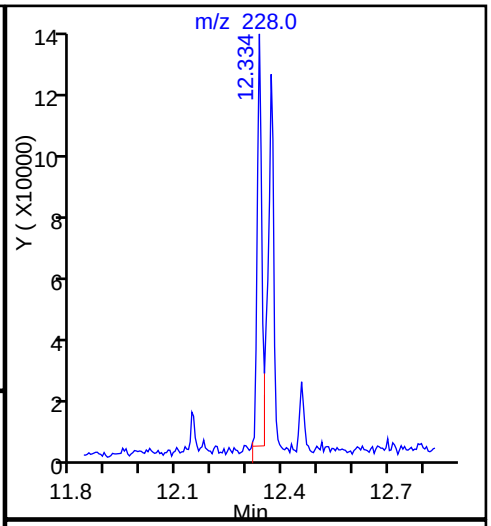
TestAmerica Canton

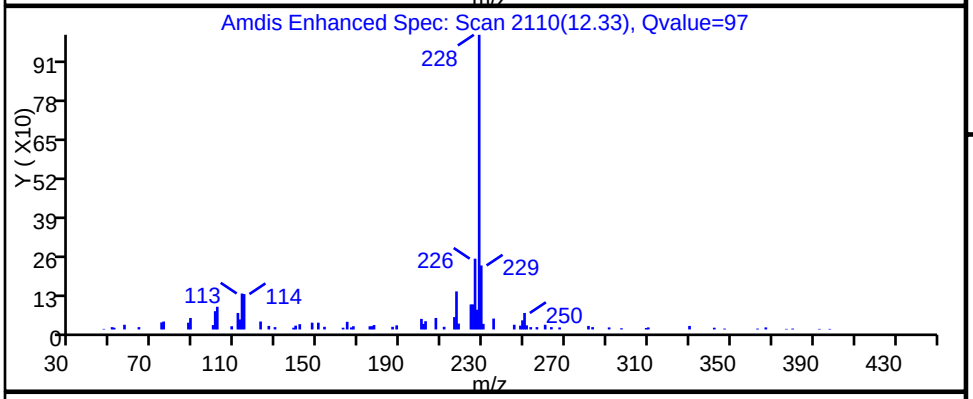
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

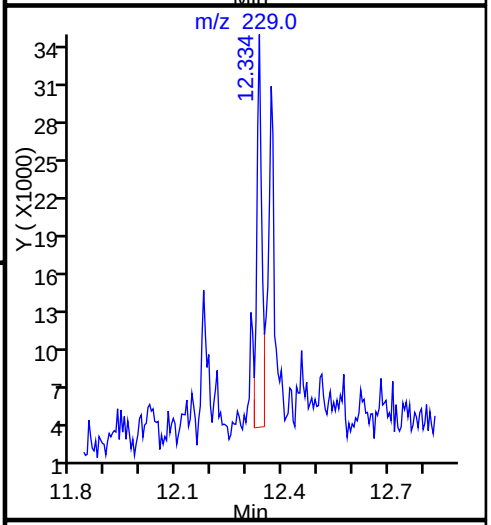
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

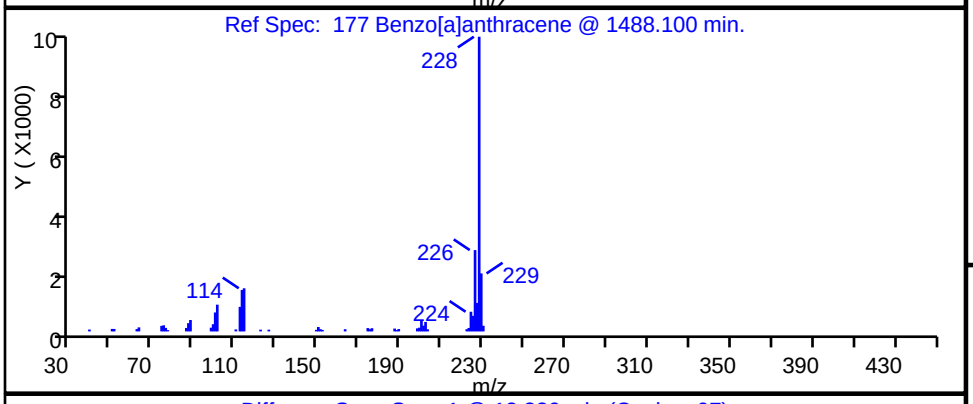
177 Benzo[a]anthracene, CAS: 56-55-3

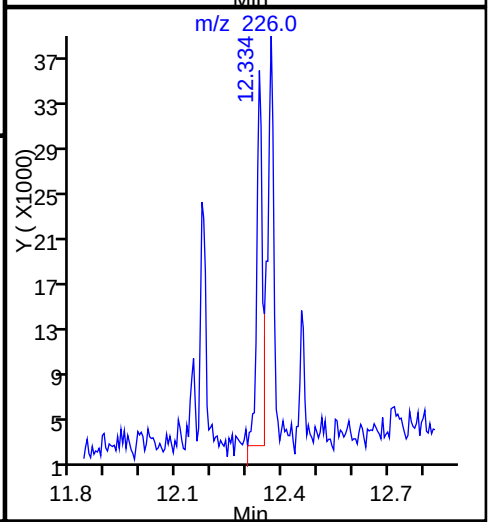


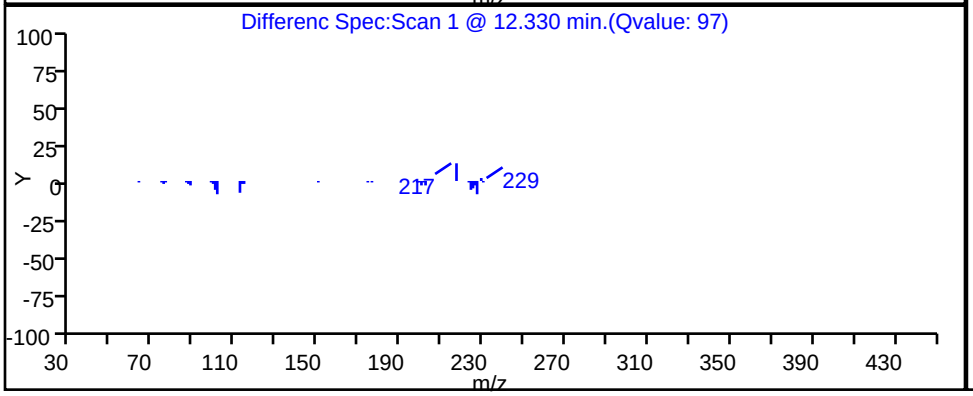












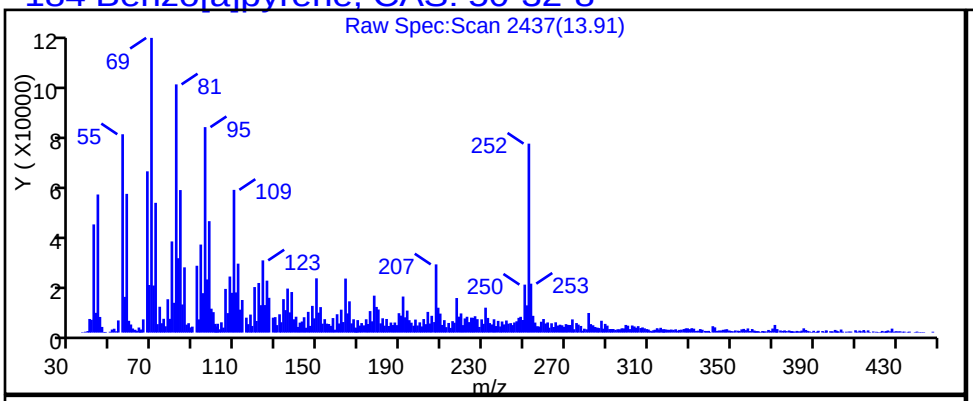
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

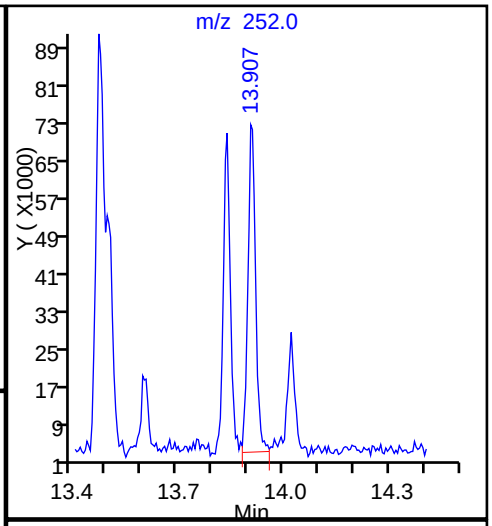
TestAmerica Canton

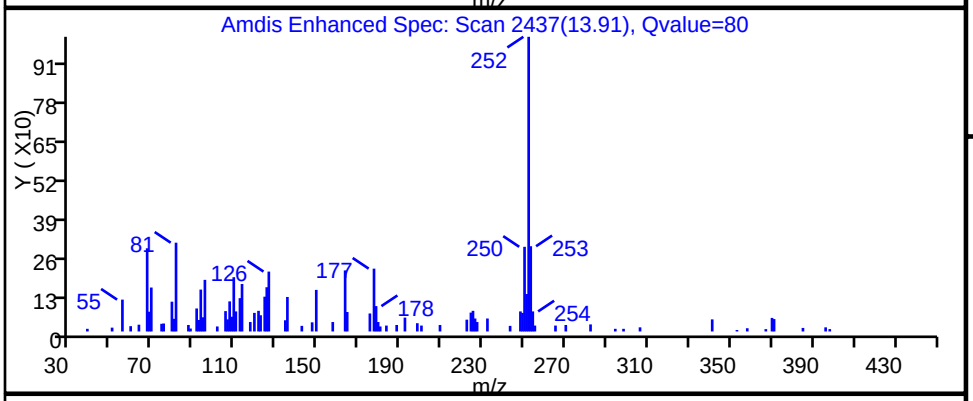
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

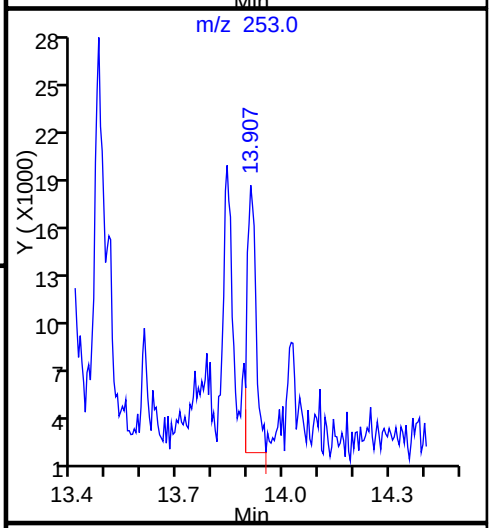
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

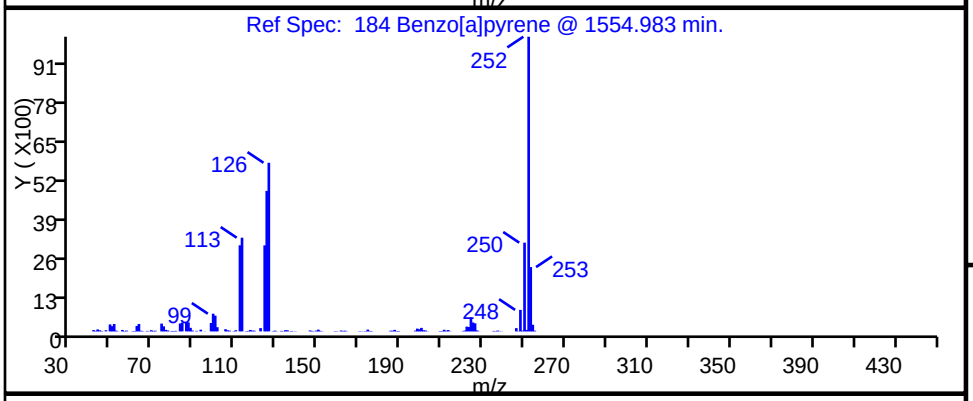
184 Benzo[a]pyrene, CAS: 50-32-8

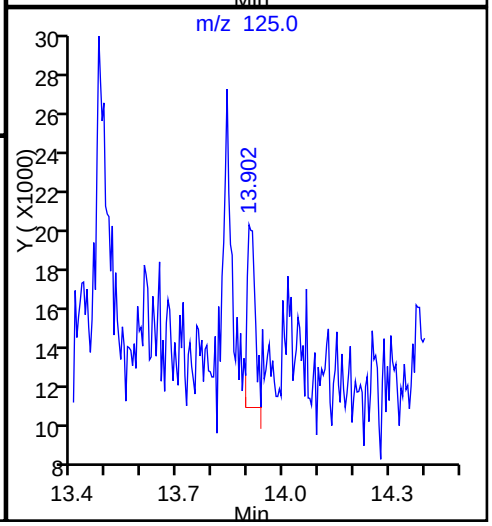


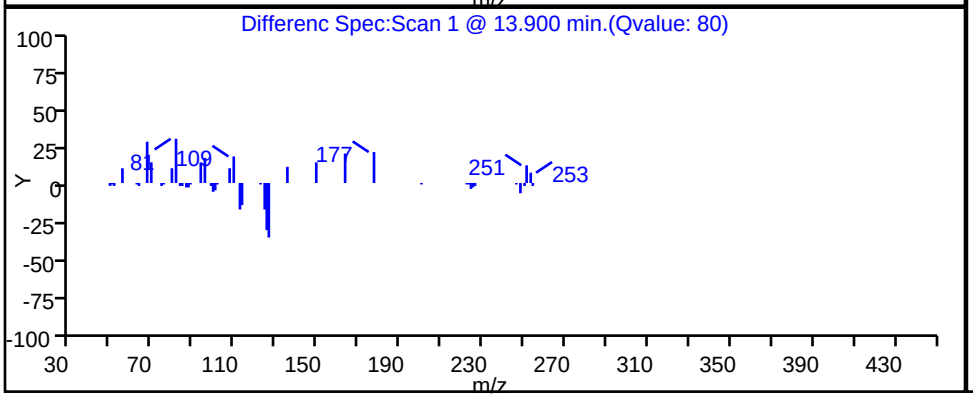












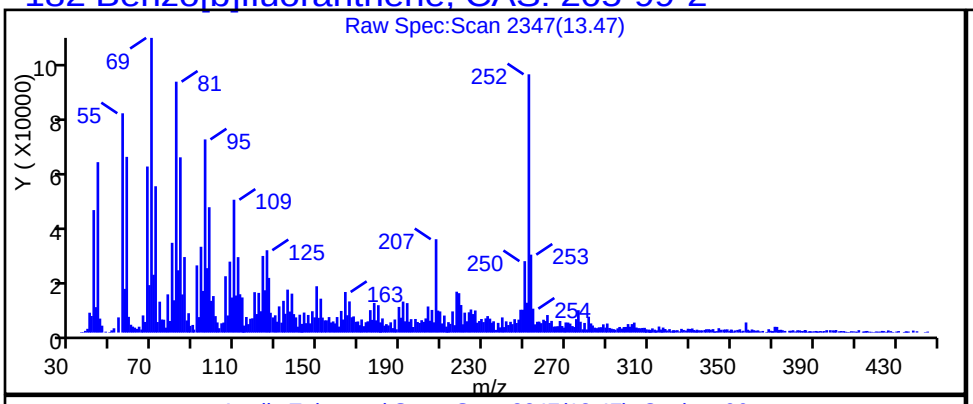
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

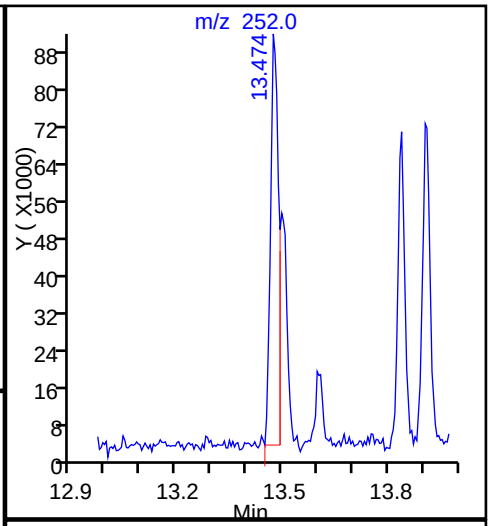
TestAmerica Canton

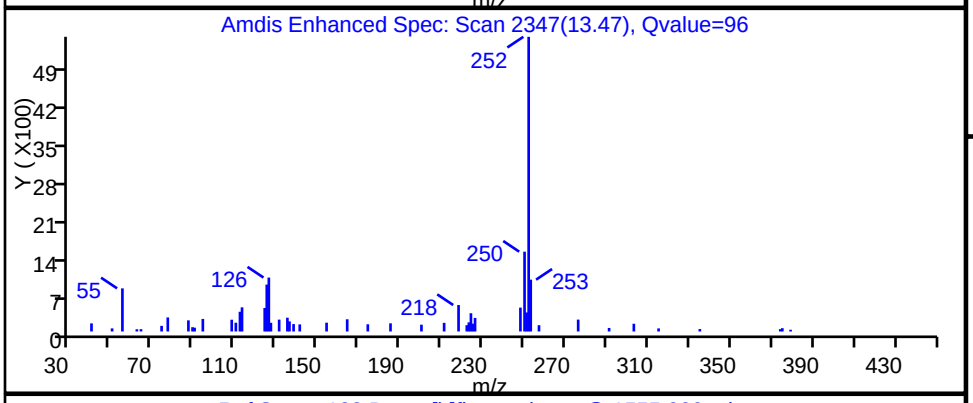
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

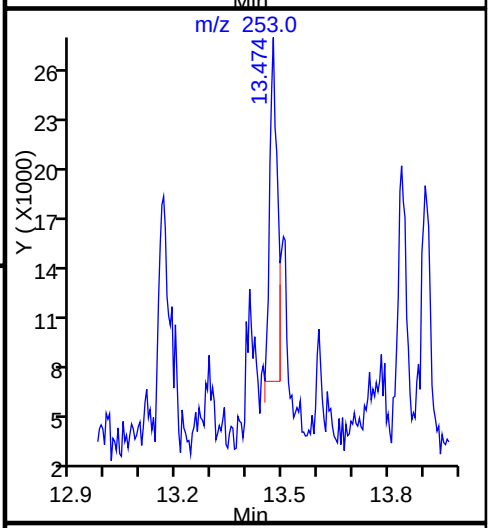
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

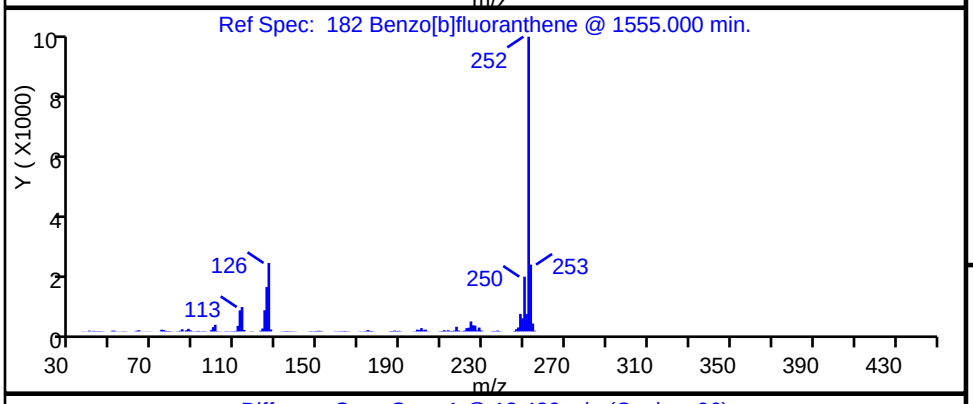
182 Benzo[b]fluoranthene, CAS: 205-99-2

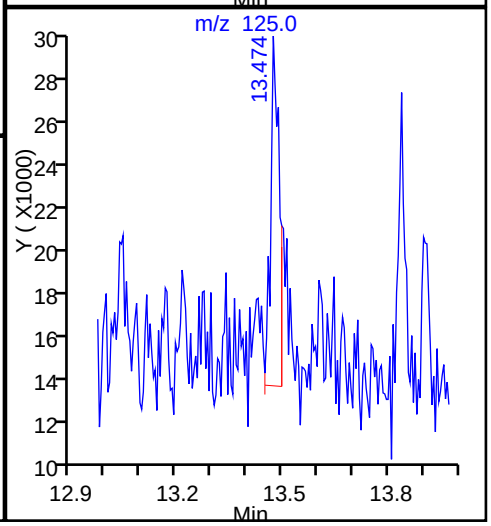


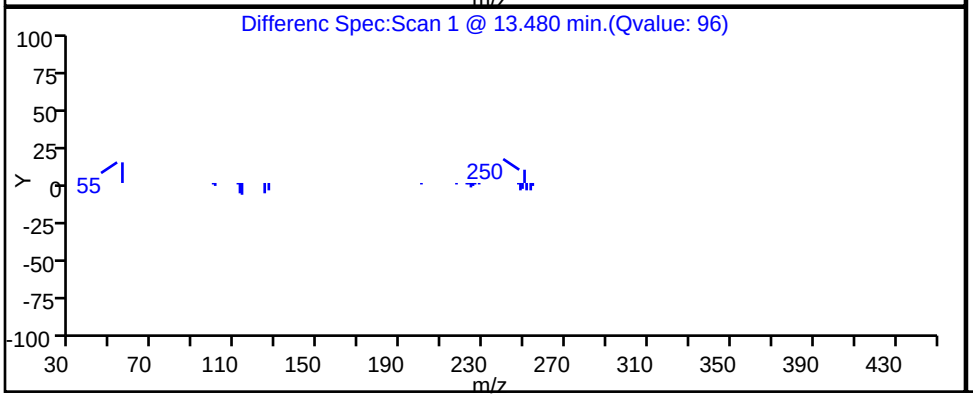












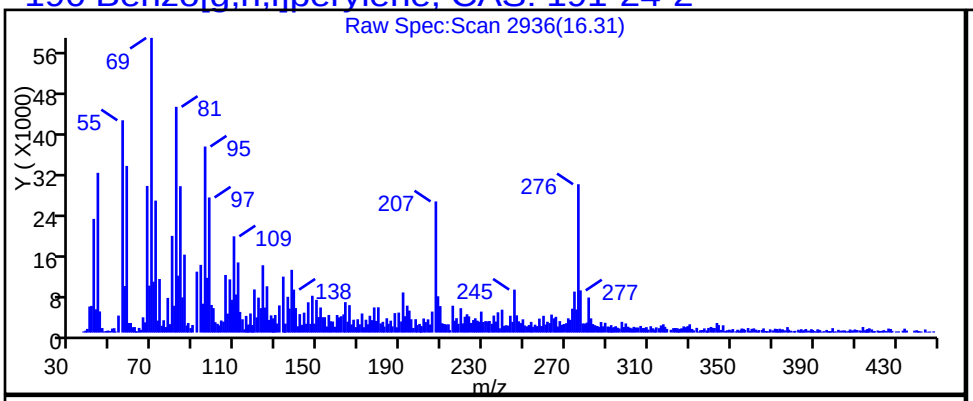
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

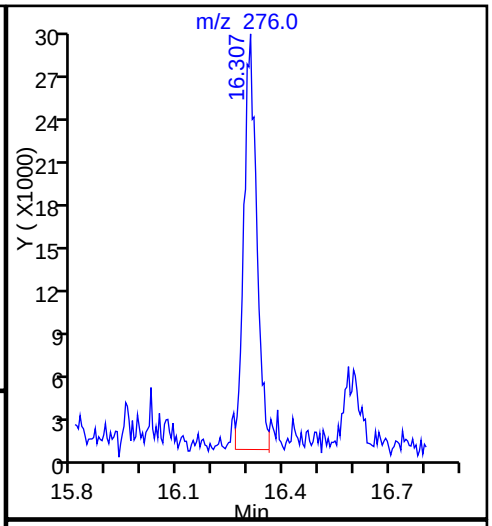
TestAmerica Canton

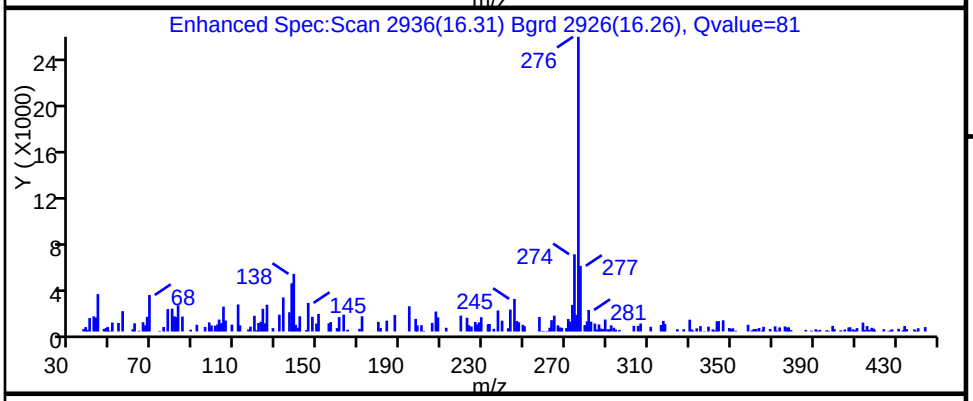
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

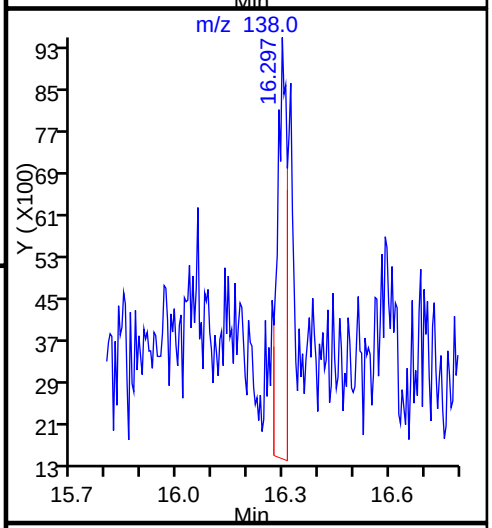
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

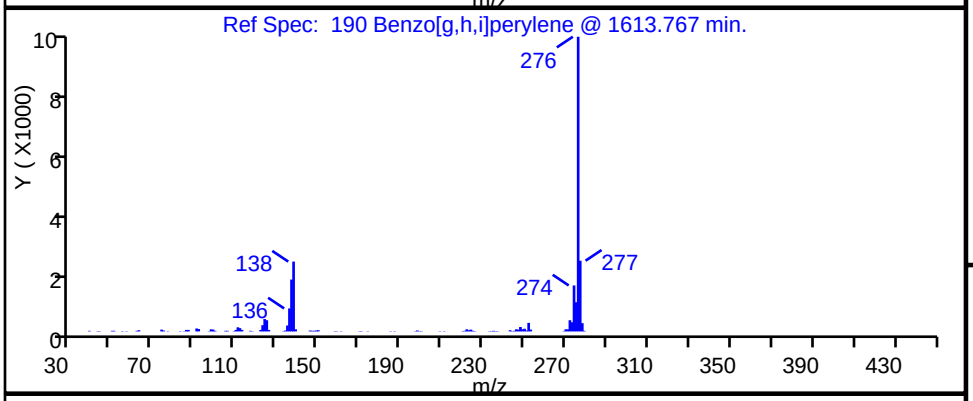
190 Benzo[g,h,i]perylene, CAS: 191-24-2

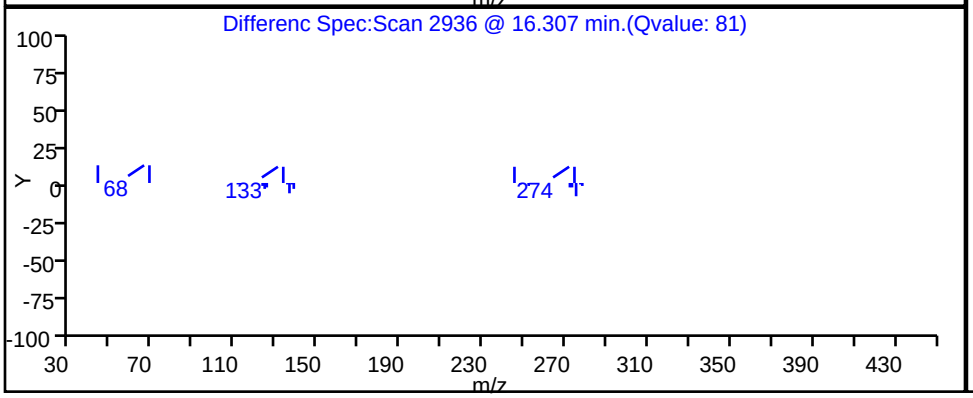


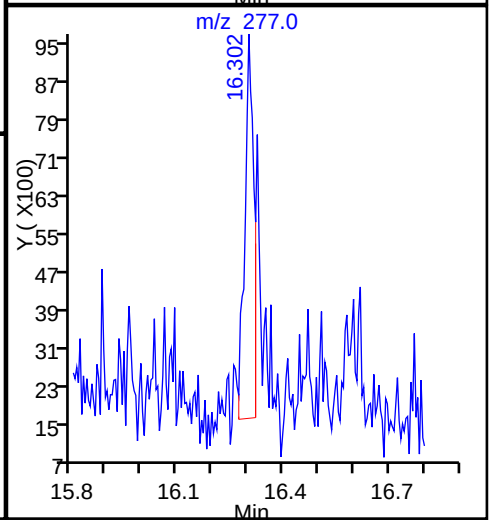










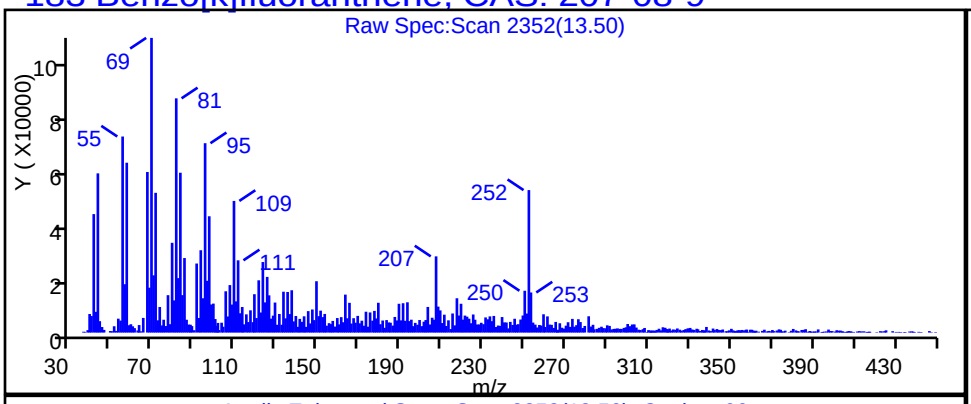


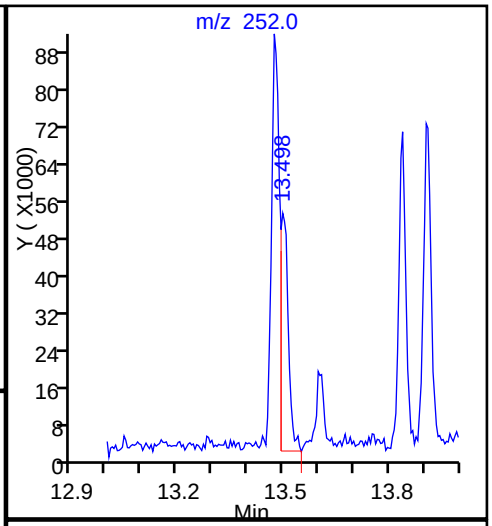
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

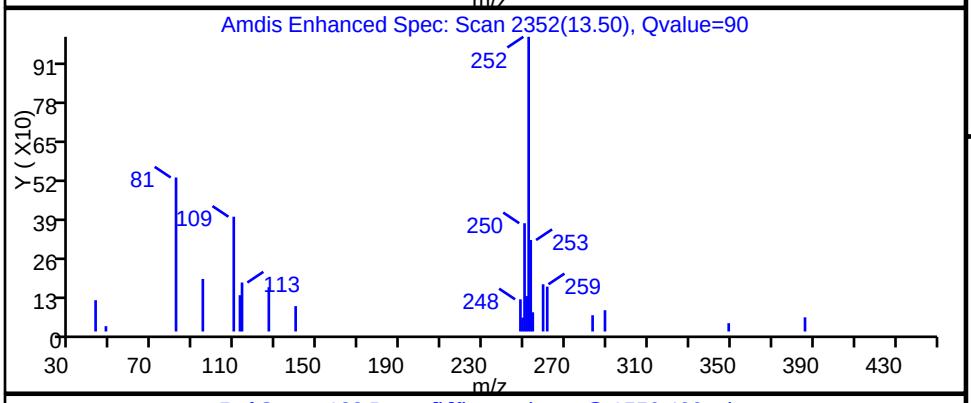
TestAmerica Canton

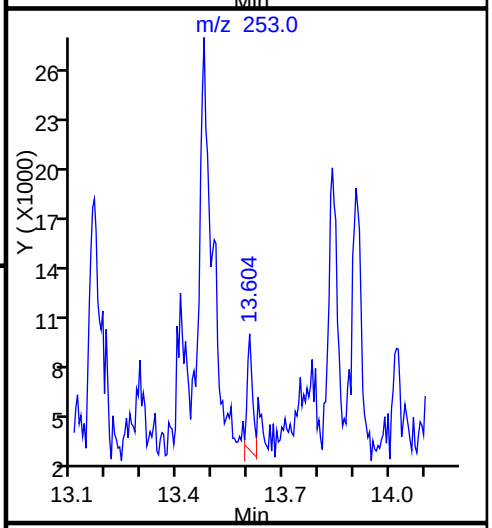
Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D				
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

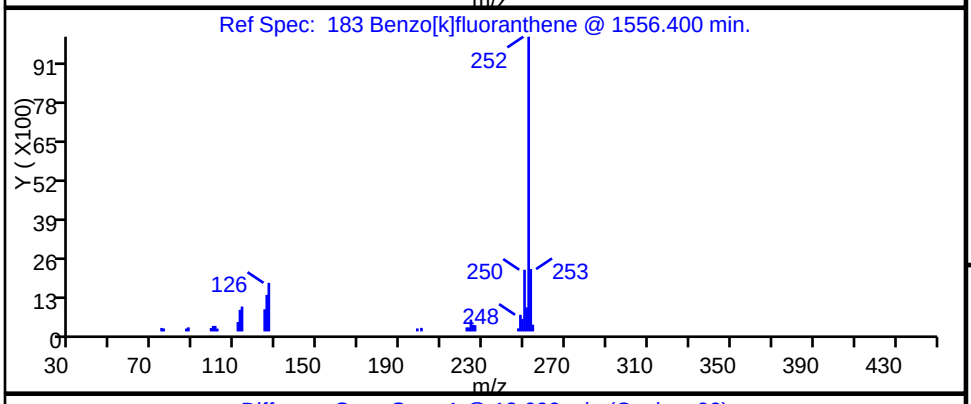
183 Benzo[k]fluoranthene, CAS: 207-08-9

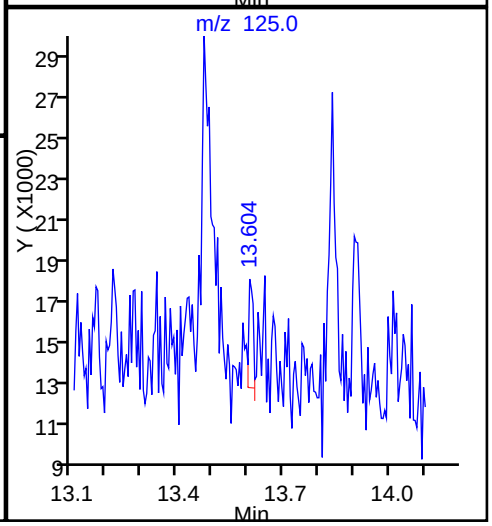


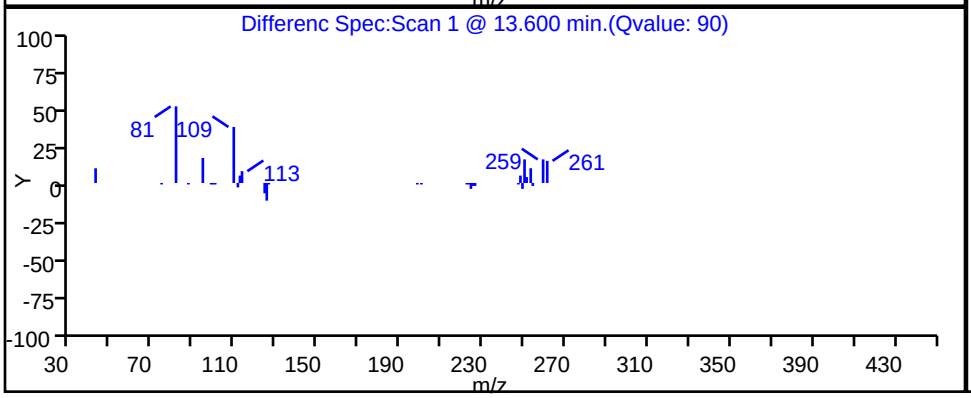












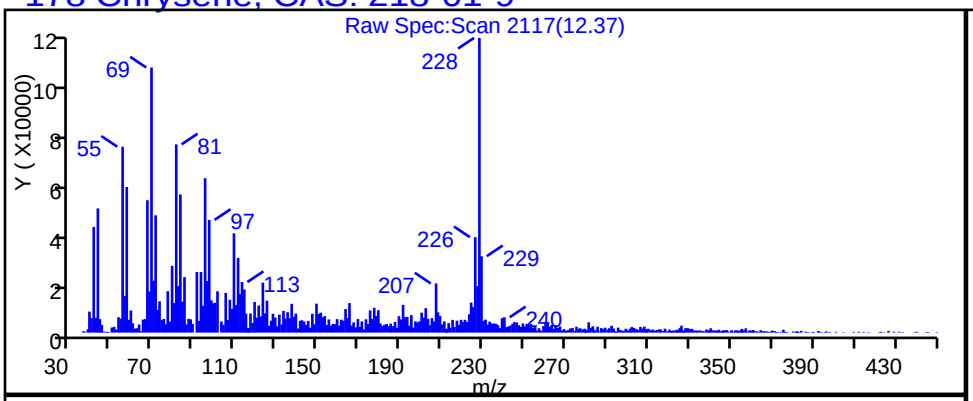
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

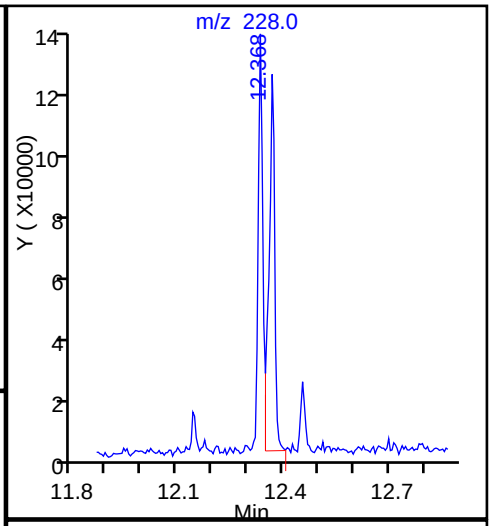
TestAmerica Canton

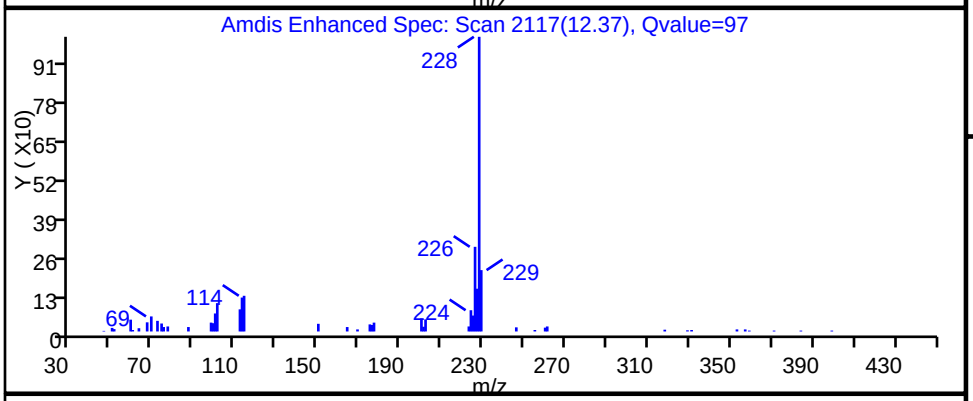
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

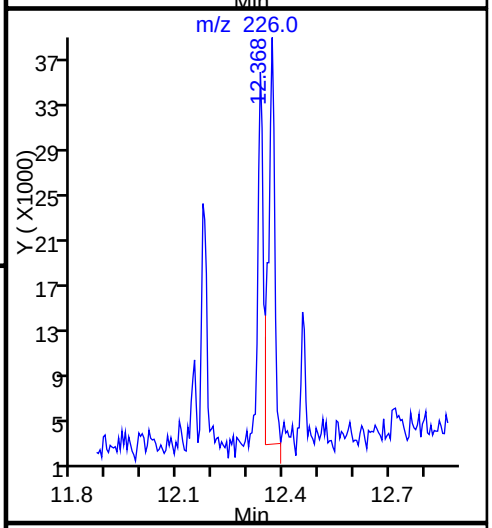
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

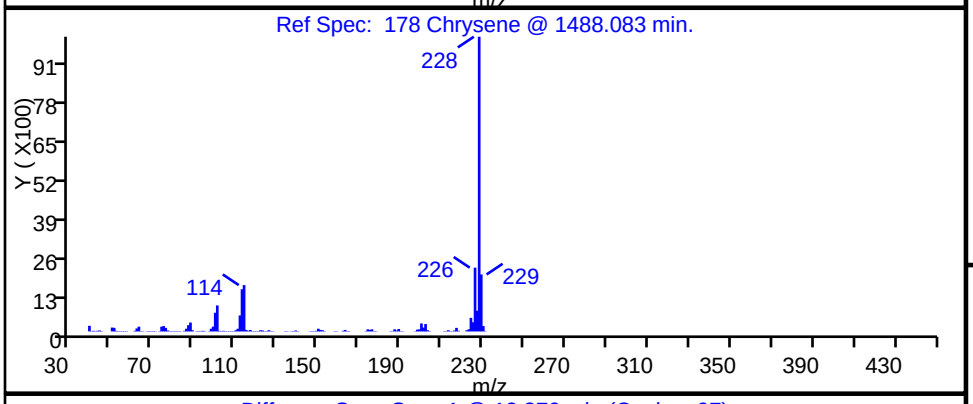
178 Chrysene, CAS: 218-01-9

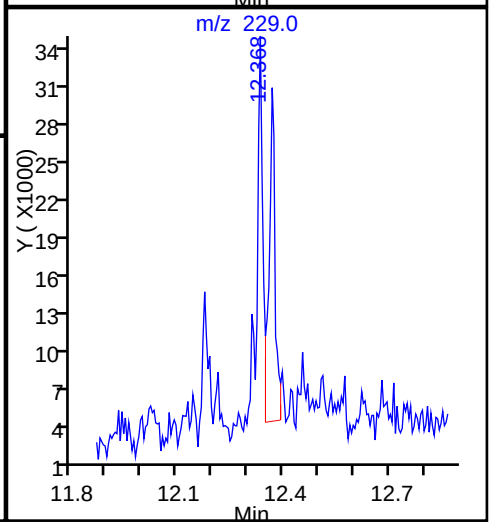


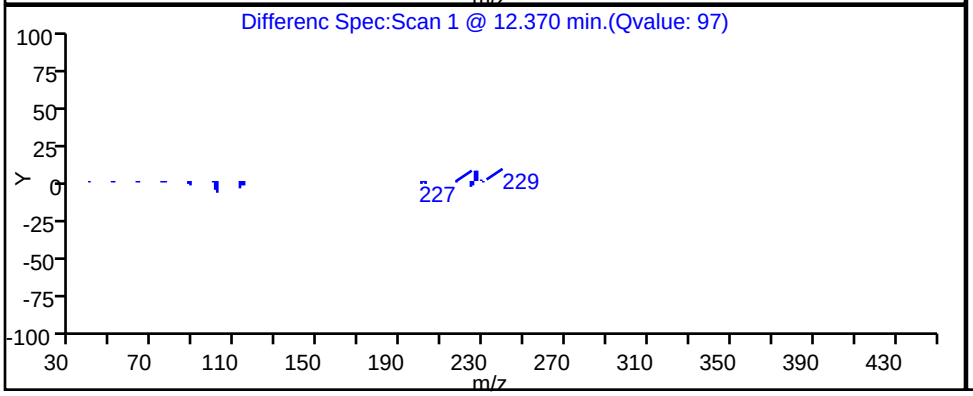












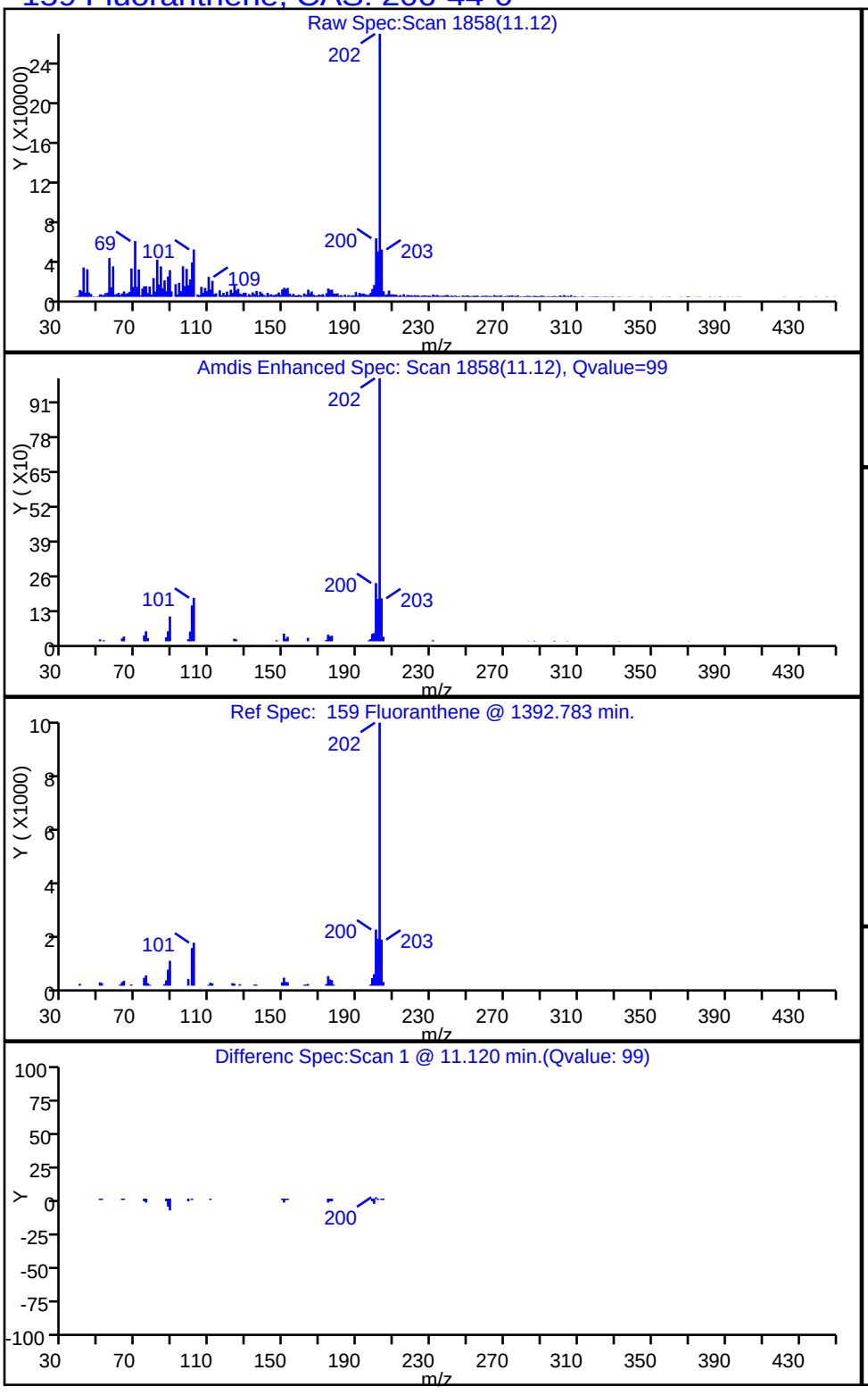
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

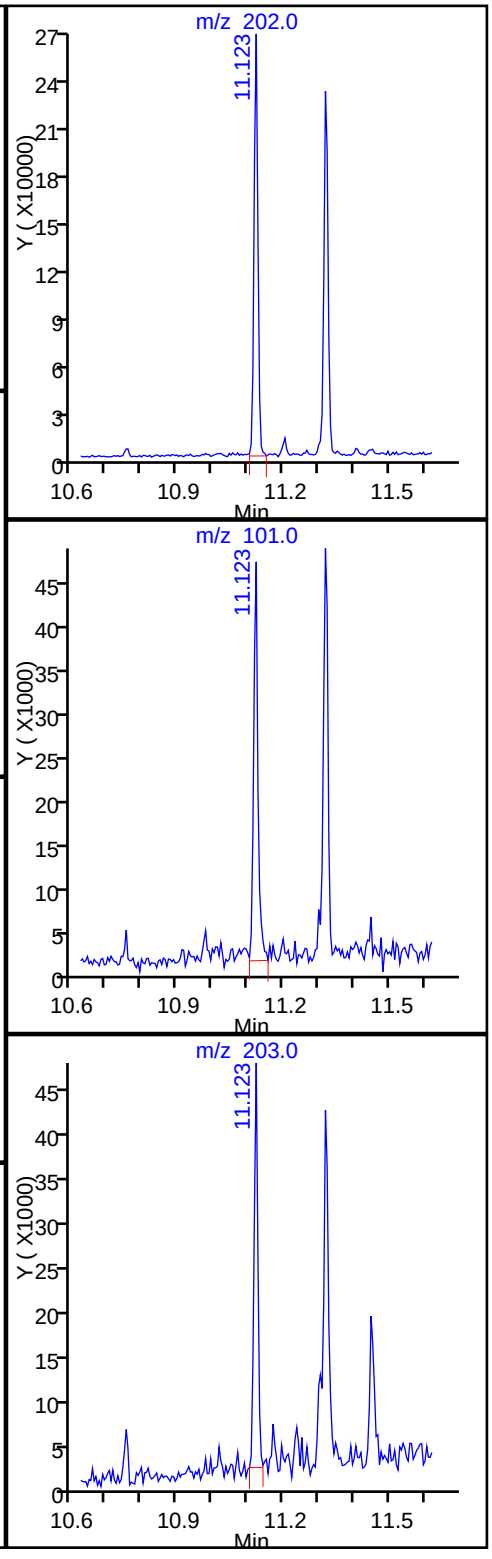
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

159 Fluoranthene, CAS: 206-44-0





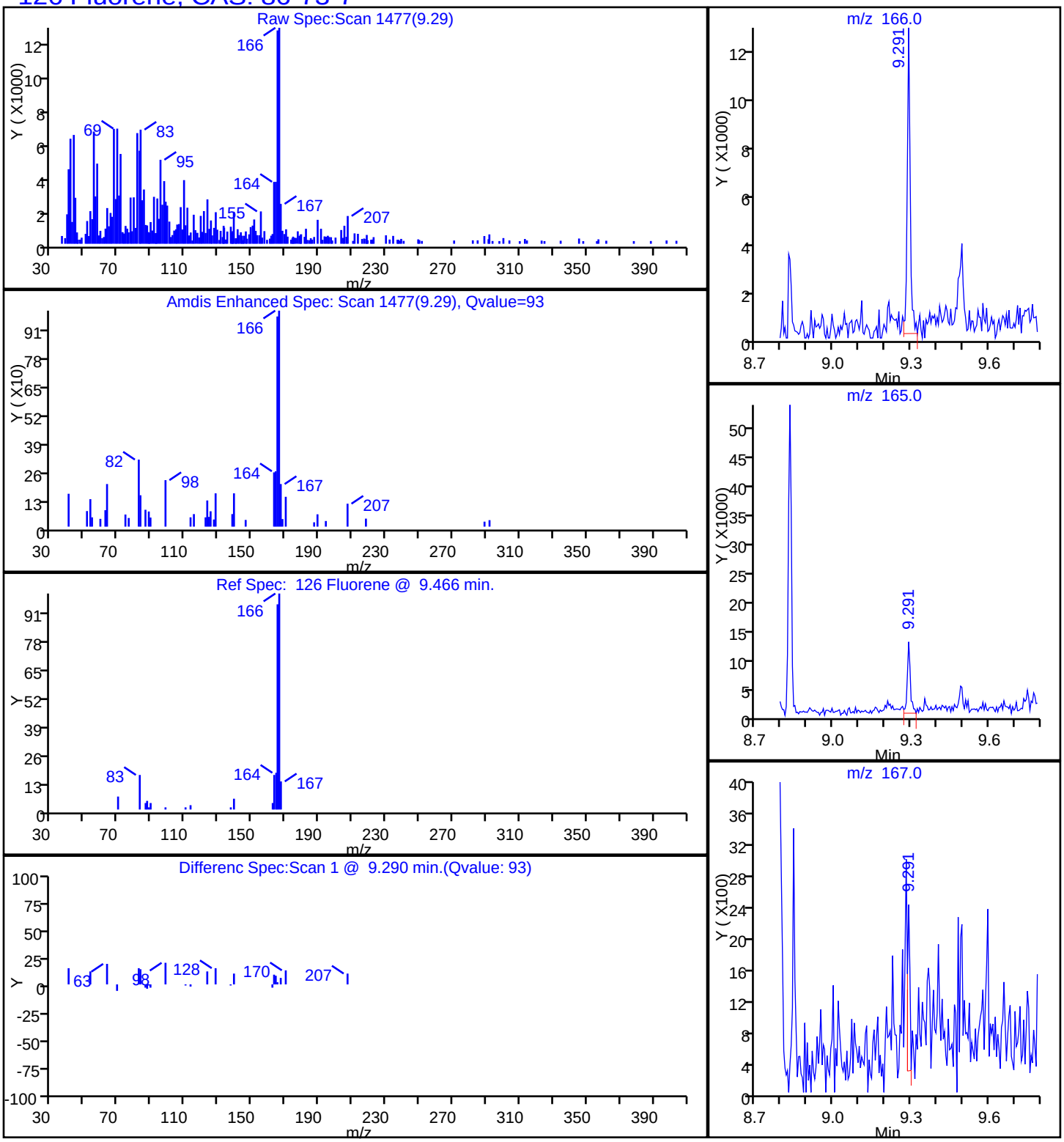
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

126 Fluorene, CAS: 86-73-7



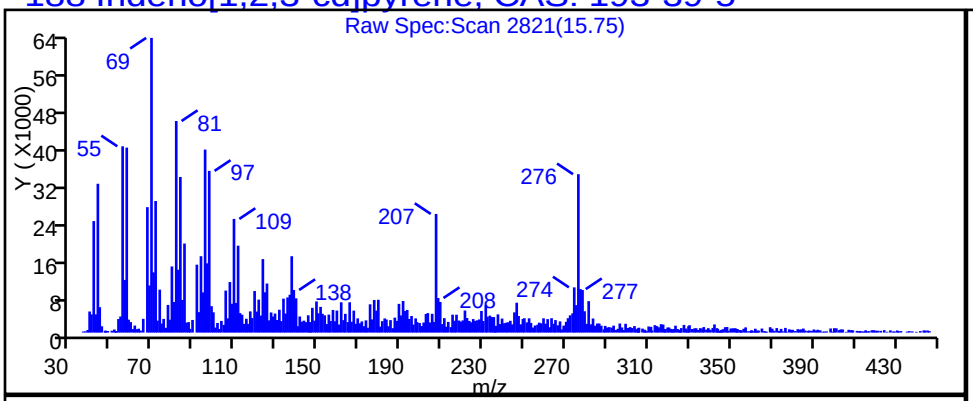
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

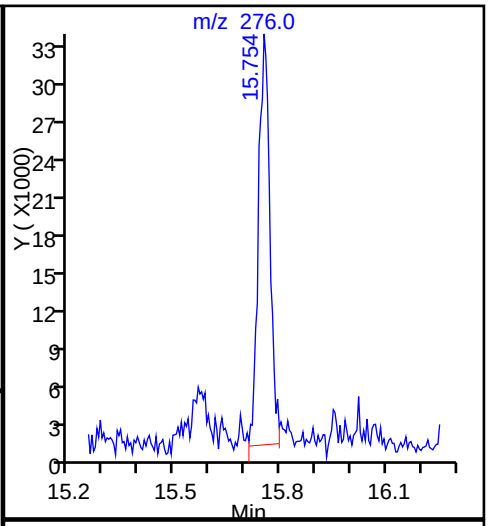
TestAmerica Canton

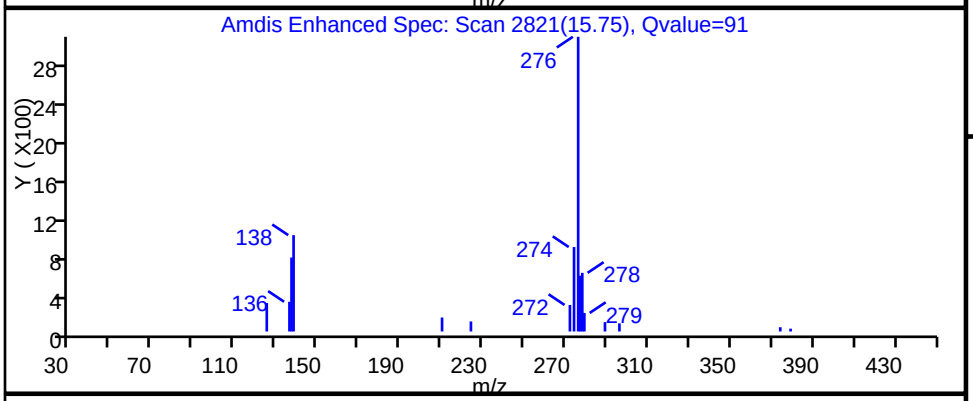
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

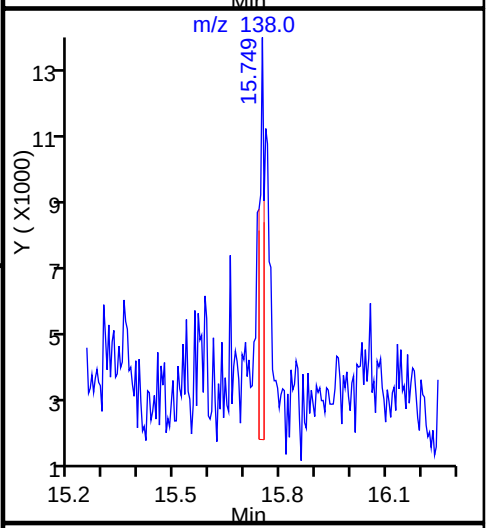
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

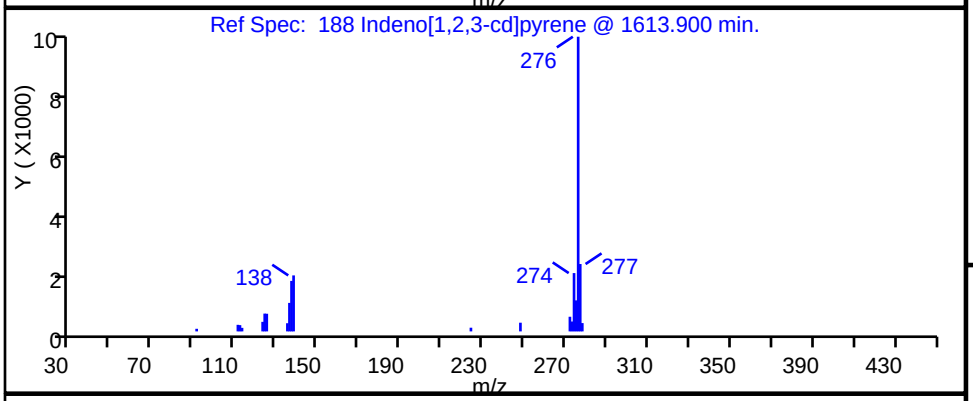
188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

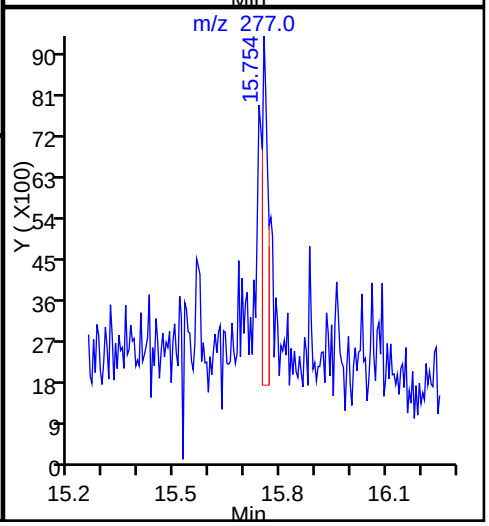


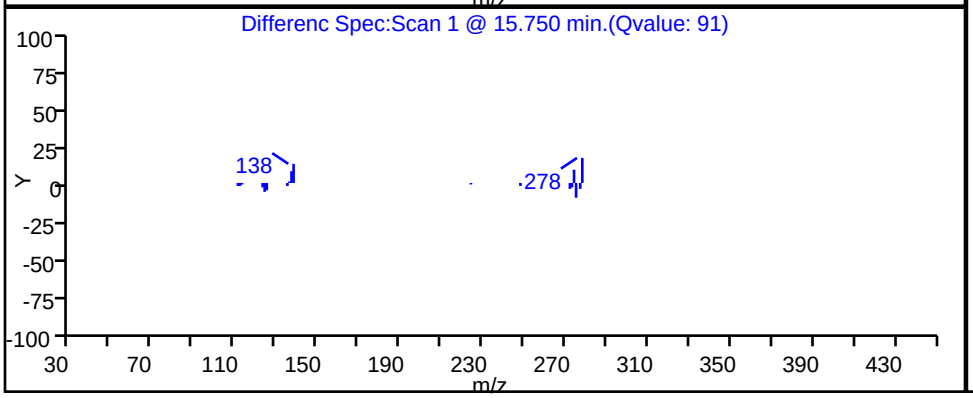












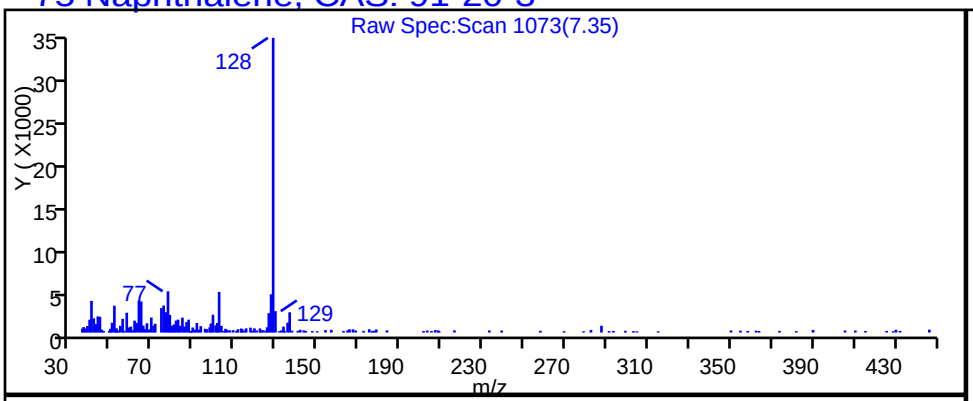
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

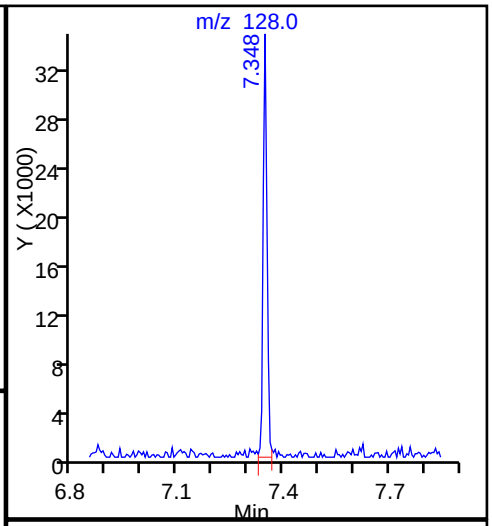
TestAmerica Canton

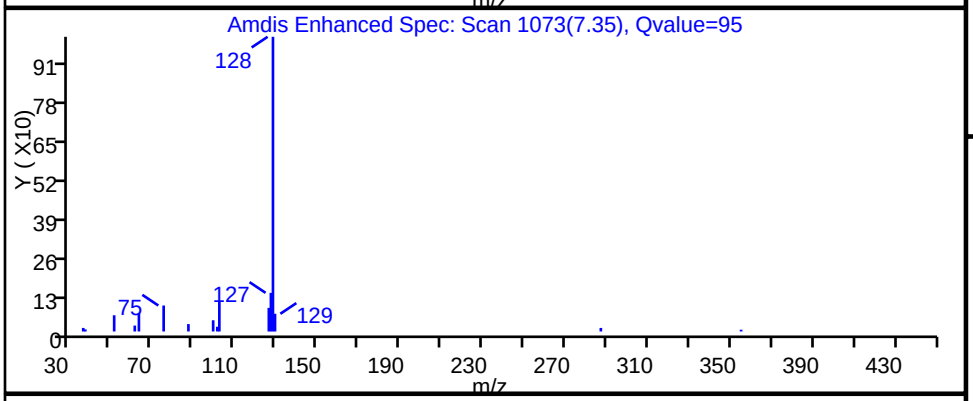
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

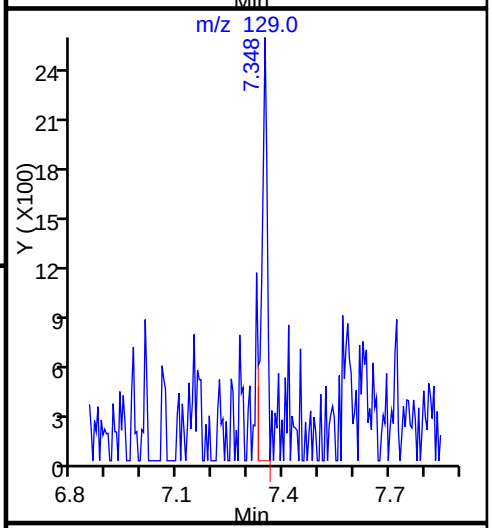
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

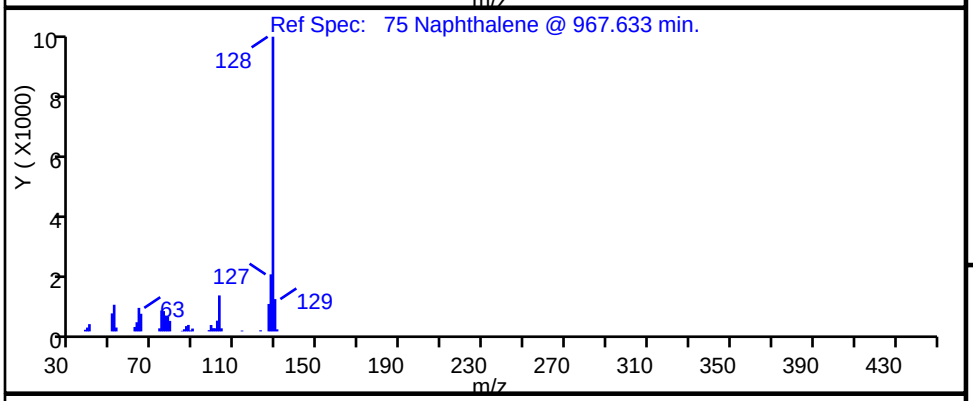
75 Naphthalene, CAS: 91-20-3

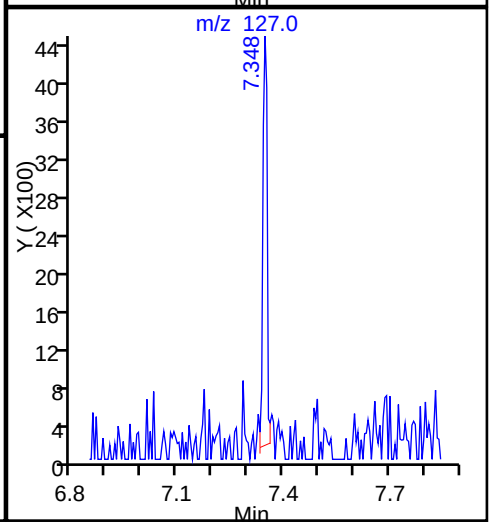


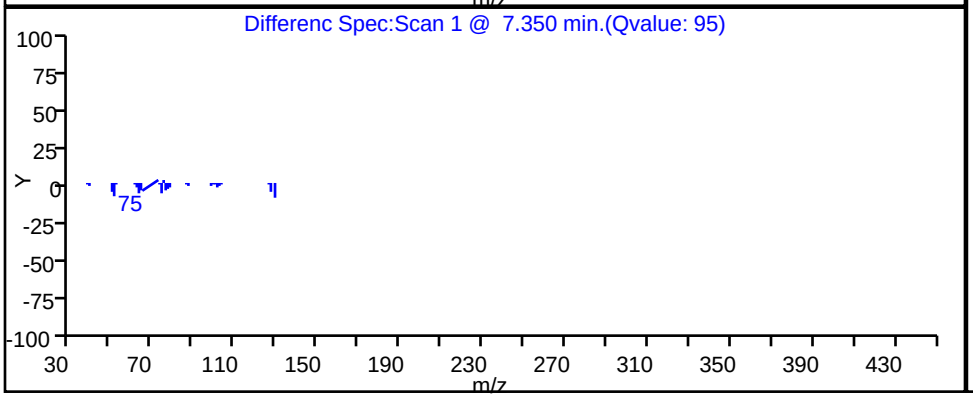












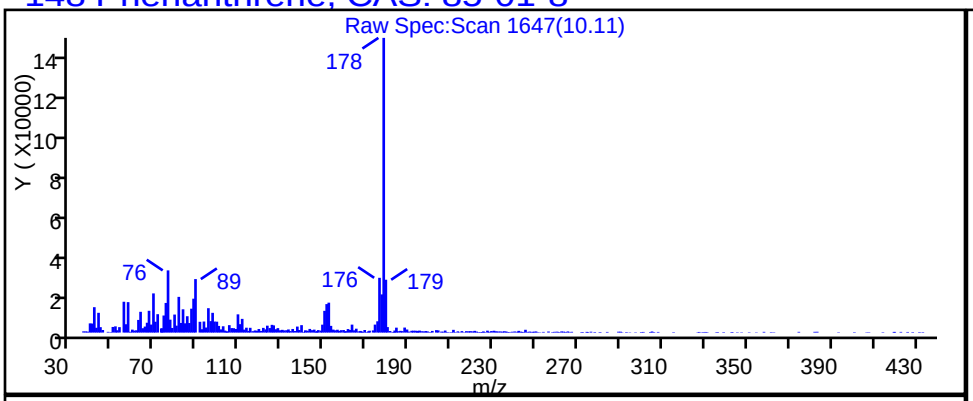
Report Date: 24-Aug-2015 09:27:06 Chrom Revision: 2.2 23-Jul-2015 08:26:08

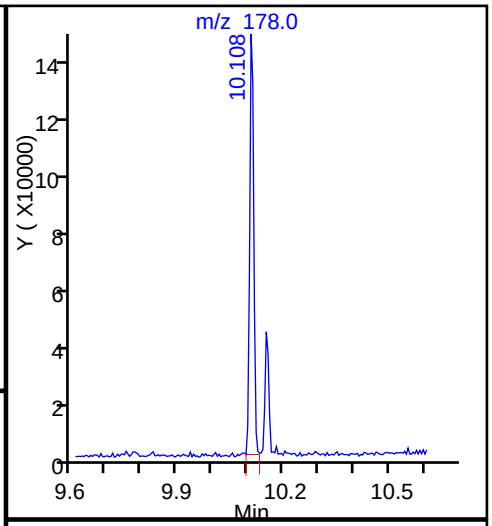
TestAmerica Canton

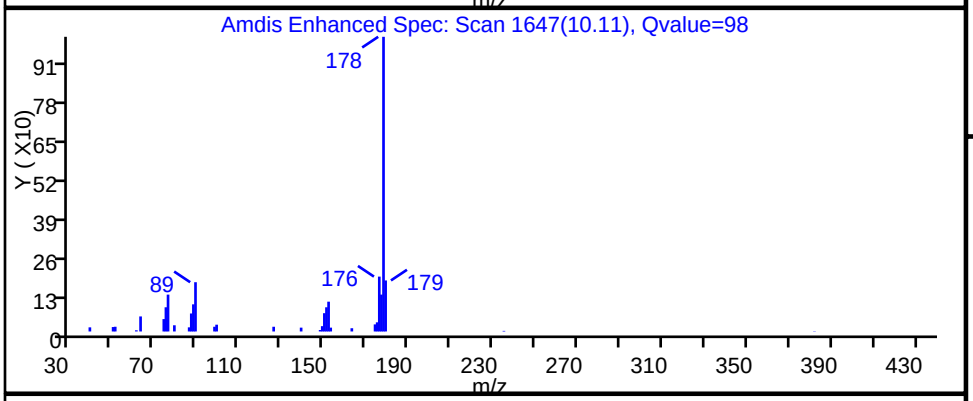
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

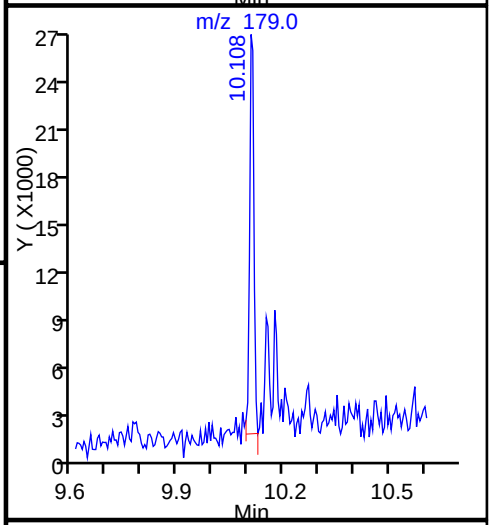
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

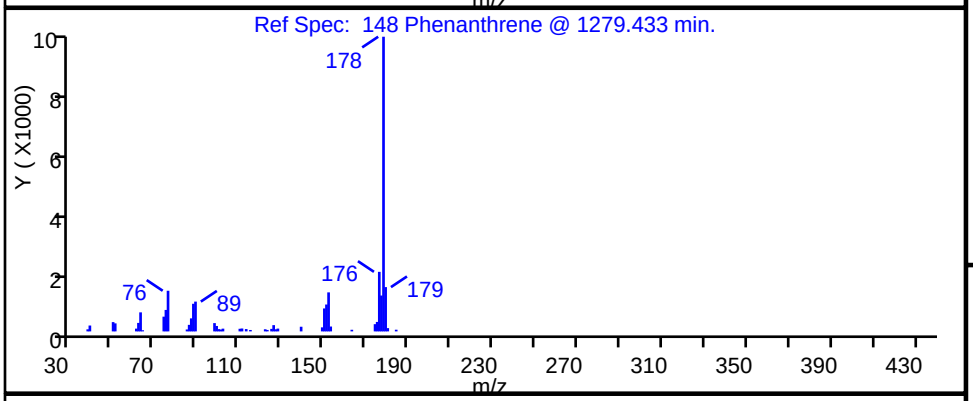
148 Phenanthrene, CAS: 85-01-8

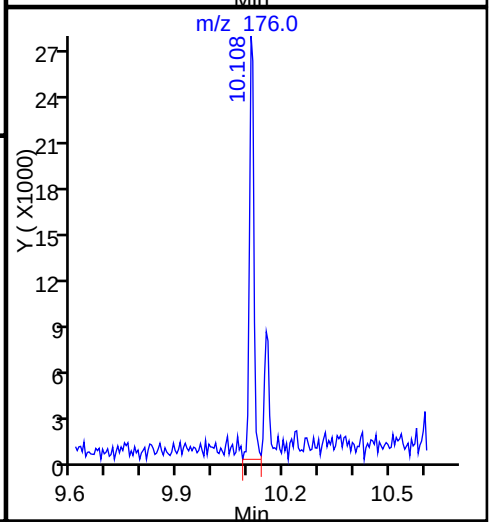


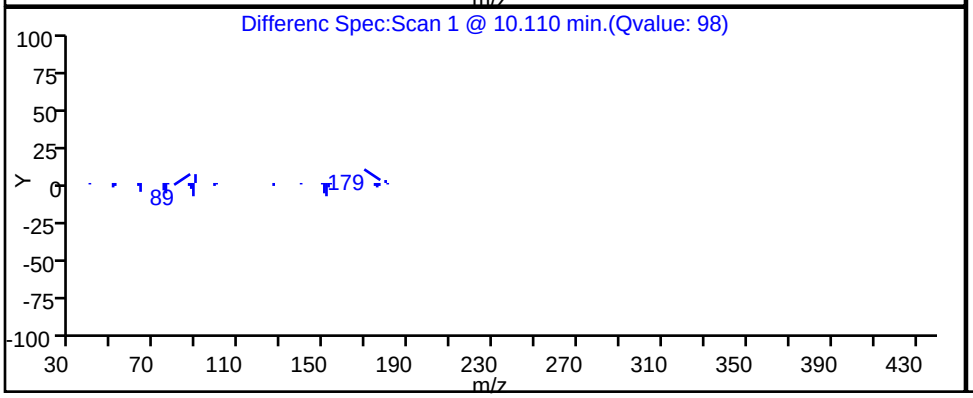












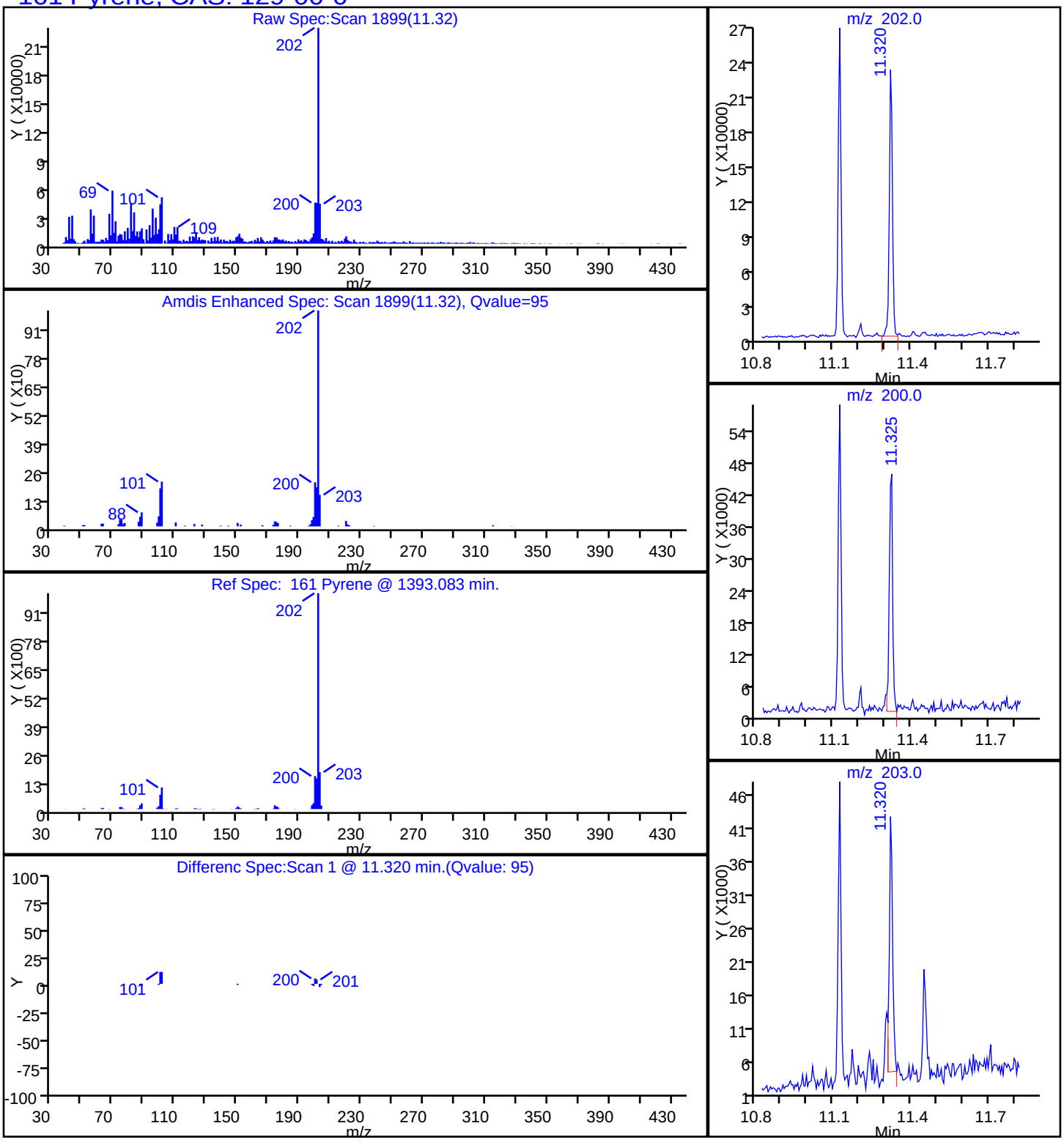
Report Date: 24-Aug-2015 09:27:07 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D

Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

161 Pyrene, CAS: 129-00-0



Manual Integration/User Assign Peak Report

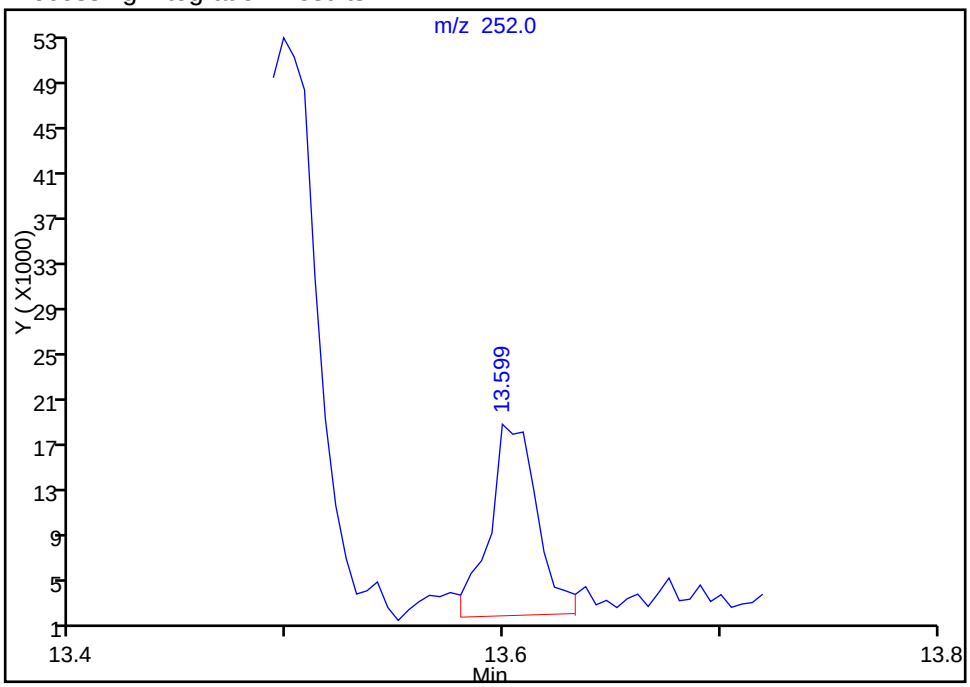
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822022.D				
Injection Date:	22-Aug-2015 18:41:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-2-A	Lab Sample ID:	240-54467-2		
Client ID:	D-VB-F-10-2				
Operator ID:	001710	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

183 Benzo[k]fluoranthene, CAS: 207-08-9

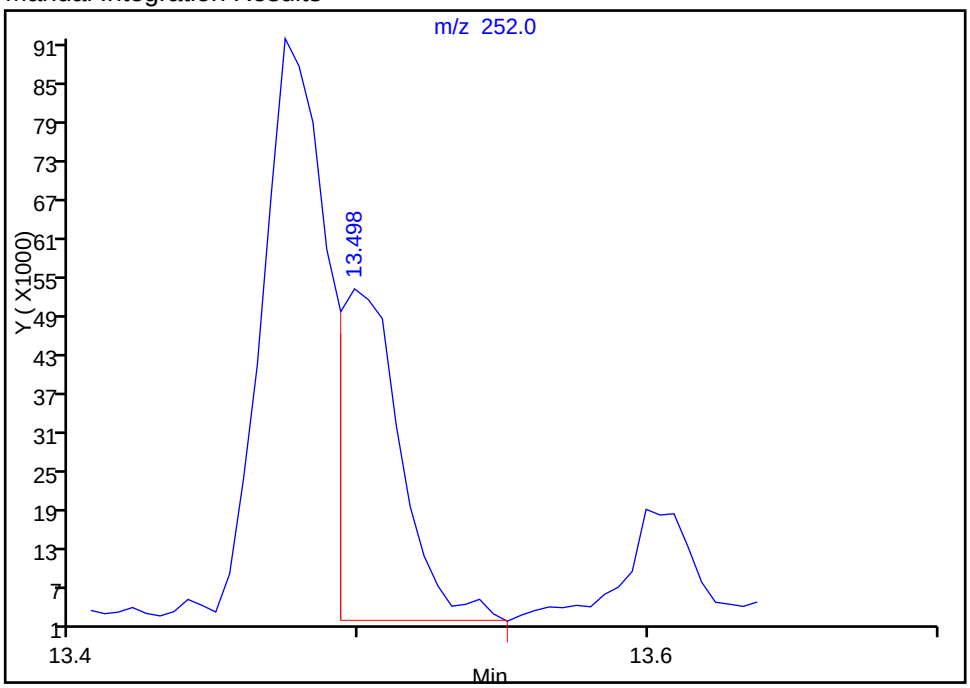
Processing Integration Results

RT: 13.60
Area: 25950
Amount: 0.152726
Amount Units: ng/ul



Manual Integration Results

RT: 13.50
Area: 77162
Amount: 0.454128
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:51:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-13-2 | Lab Sample ID: 240-54467-3

Matrix: Solid | Lab File ID: 50822023.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:33

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.02(g) | Date Analyzed: 08/22/2015 19:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 6.667

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	510		49	5.6
208-96-8	Acenaphthylene	71		49	2.6
120-12-7	Anthracene	1400		49	5.7
56-55-3	Benzo[a]anthracene	2900		49	4.6
50-32-8	Benzo[a]pyrene	2700		49	4.7
205-99-2	Benzo[b]fluoranthene	3200		49	4.3
191-24-2	Benzo[g,h,i]perylene	2000		49	2.6
207-08-9	Benzo[k]fluoranthene	1600		49	5.0
218-01-9	Chrysene	2900		49	8.0
53-70-3	Dibenz(a,h)anthracene	580		49	4.8
206-44-0	Fluoranthene	6300		49	4.0
86-73-7	Fluorene	570		49	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	1700		49	2.6
91-20-3	Naphthalene	47	J	49	6.0
85-01-8	Phenanthrene	4700		49	5.3
129-00-0	Pyrene	5200		49	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	72		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	62		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D
Lims ID: 240-54467-B-3-A Lab Sample ID: 240-54467-3
Client ID: D-VB-F-13-2
Sample Type: Client
Inject. Date: 22-Aug-2015 19:05:30 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 6.6670
Sample Info: 240-0046571-023
Misc. Info.: 240-54467-B-3-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 08:53:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.209	6.214	-0.005	92	141631	4.00	
* 2 Naphthalene-d8	136	7.330	7.330	0.000	98	541479	4.00	
* 3 Acenaphthene-d10	164	8.830	8.830	0.000	91	320636	4.00	
* 4 Phenanthrene-d10	188	10.090	10.090	0.000	96	542909	4.00	
* 5 Chrysene-d12	240	12.345	12.345	0.000	96	609272	4.00	
* 6 Perylene-d12	264	13.985	13.985	0.000	98	604197	4.00	
$ 7 2-Fluorophenol	112	4.997	4.983	0.014	94	57629	0.9298	
$ 8 Phenol-d5	99	5.887	5.882	0.005	97	94300	1.08	
$ 9 Nitrobenzene-d5	82	6.690	6.690	0.000	83	91681	0.8743	
$ 10 2-Fluorobiphenyl (Surr)	172	8.234	8.234	0.000	98	110616	1.06	
$ 11 2,4,6-Tribromophenol	330	9.498	9.499	-0.001	60	5827	0.5588	
$ 12 Terphenyl-d14	244	11.407	11.408	-0.001	99	137485	1.23	
75 Naphthalene	128	7.349	7.349	0.000	92	14982	0.0968	
109 Acenaphthylene	152	8.710	8.715	-0.005	95	21844	0.1458	
112 Acenaphthene	153	8.859	8.859	0.000	96	101404	1.05	
126 Fluorene	166	9.292	9.292	0.000	99	128988	1.17	
148 Phenanthrene	178	10.109	10.114	-0.005	99	1659638	9.64	
149 Anthracene	178	10.152	10.157	-0.005	98	505703	2.95	
159 Fluoranthene	202	11.124	11.124	0.000	100	2263679	13.0	
161 Pyrene	202	11.321	11.321	0.000	96	1885681	10.7	
177 Benzo[a]anthracene	228	12.336	12.336	0.000	99	1109722	5.90	
178 Chrysene	228	12.369	12.369	0.000	97	1054367	5.98	
182 Benzo[b]fluoranthene	252	13.475	13.475	0.000	97	1176265	6.57	
183 Benzo[k]fluoranthene	252	13.499	13.509	-0.010	95	605917	3.35	M
184 Benzo[a]pyrene	252	13.908	13.908	0.000	78	942714	5.53	
188 Indeno[1,2,3-cd]pyrene	276	15.750	15.755	-0.005	98	609275	3.44	
189 Dibenz(a,h)anthracene	278	15.750	15.760	-0.010	54	164495	1.18	
190 Benzo[g,h,i]perylene	276	16.298	16.303	-0.005	97	606162	4.12	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

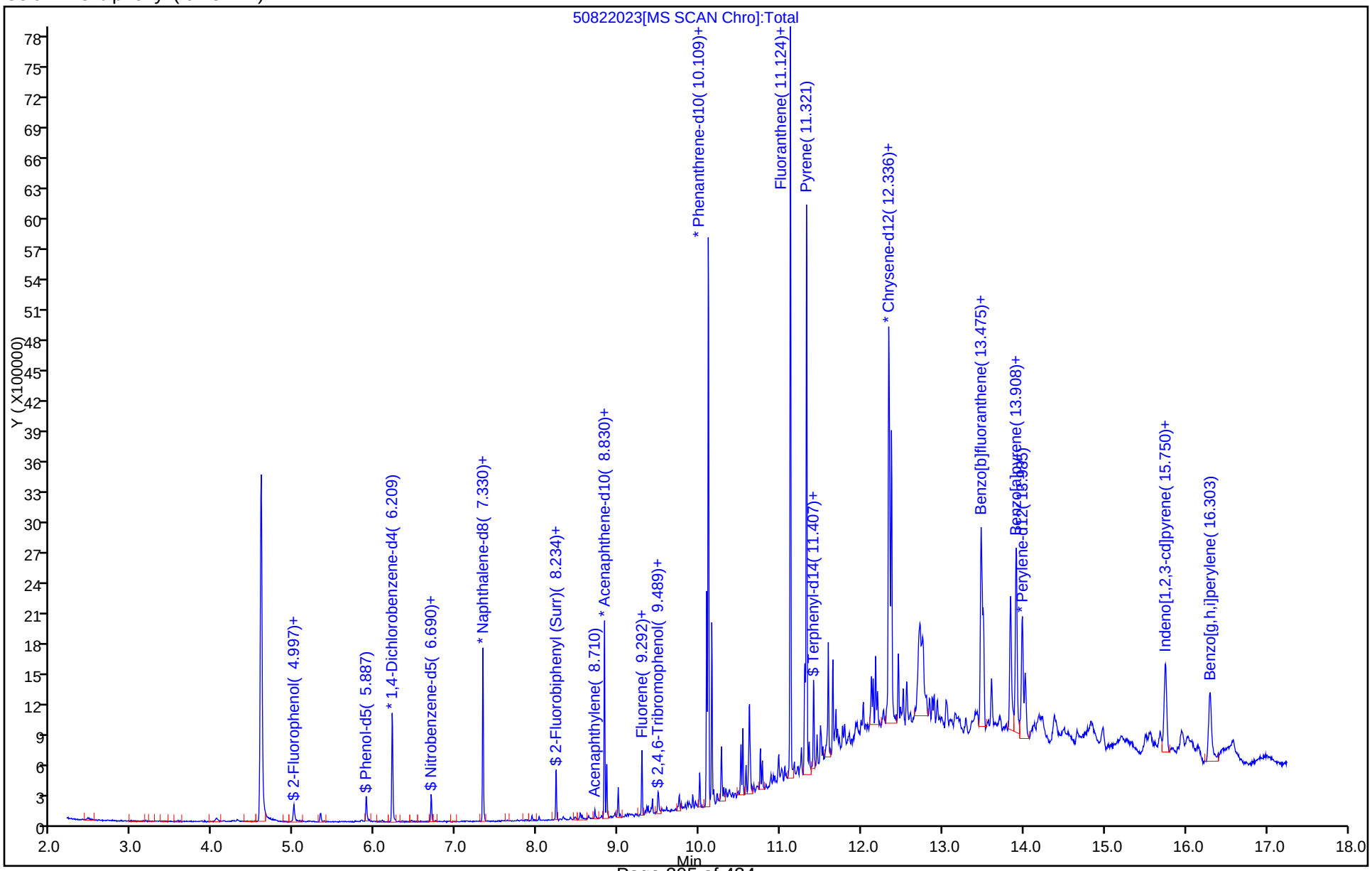
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3	Worklist Smp#:	23
Client ID:	D-VB-F-13-2				
Injection Vol:	1.0 ul	Dil. Factor:	6.6670	ALS Bottle#:	23
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



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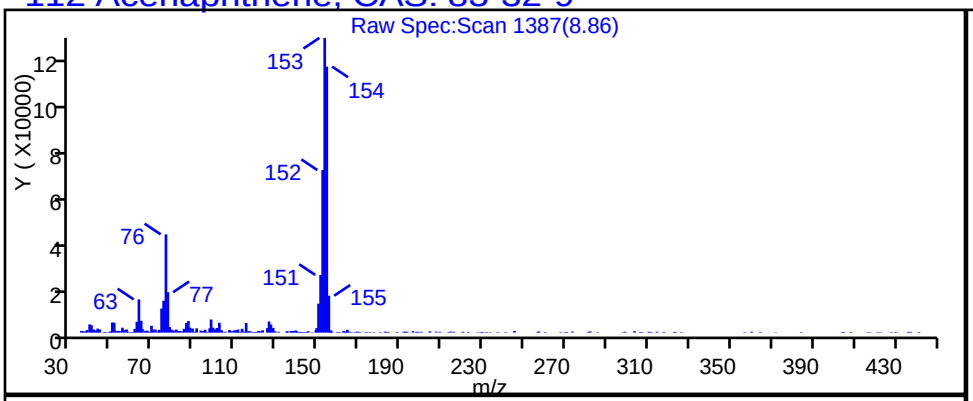
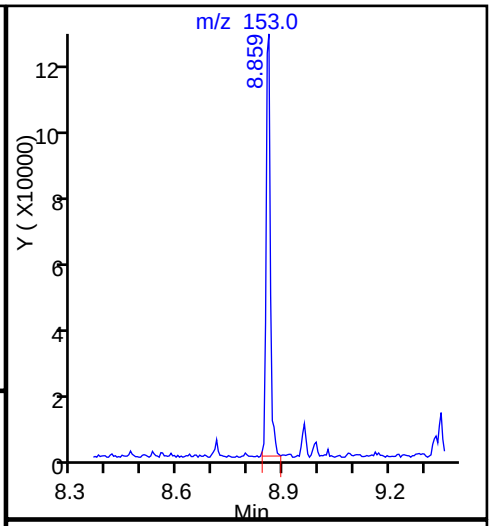
TestAmerica Canton

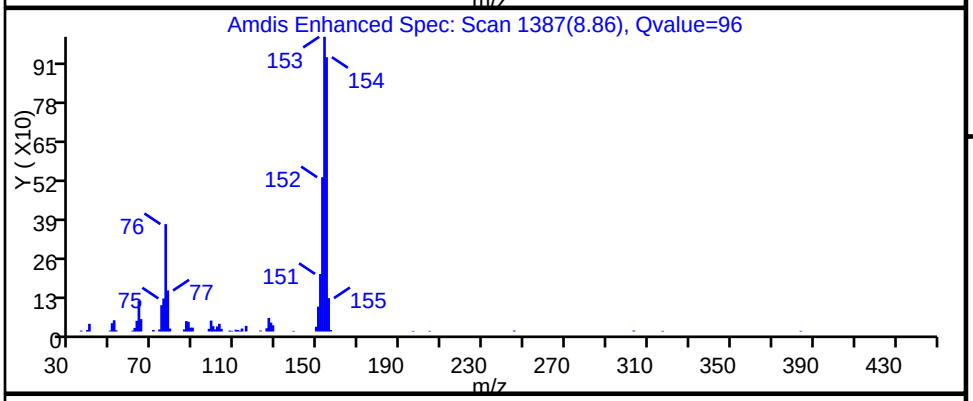
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

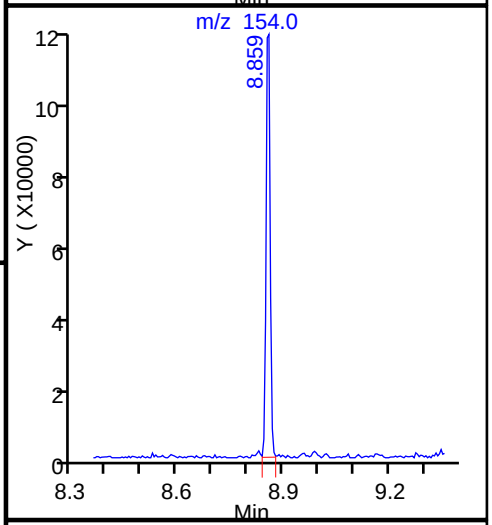
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

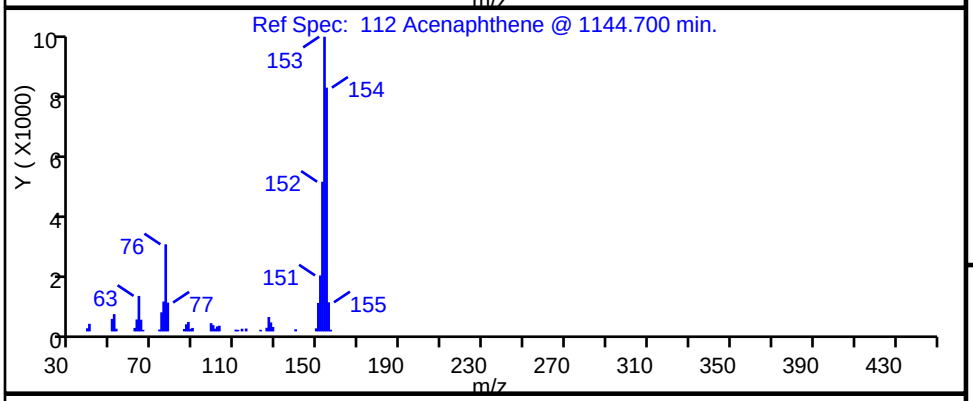
112 Acenaphthene, CAS: 83-32-9

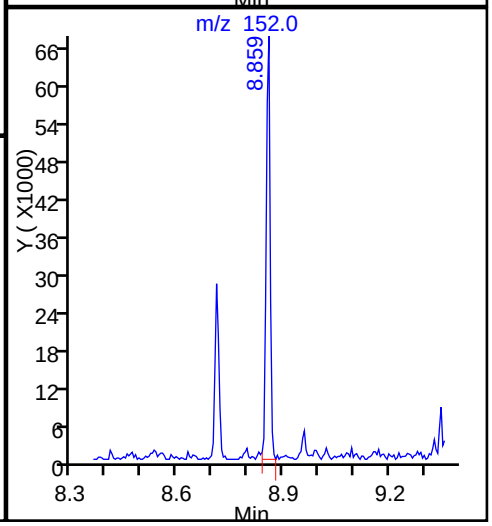


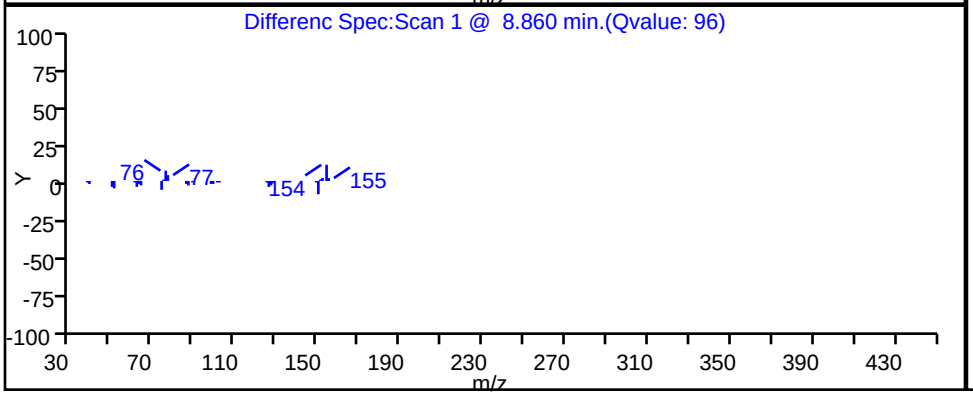












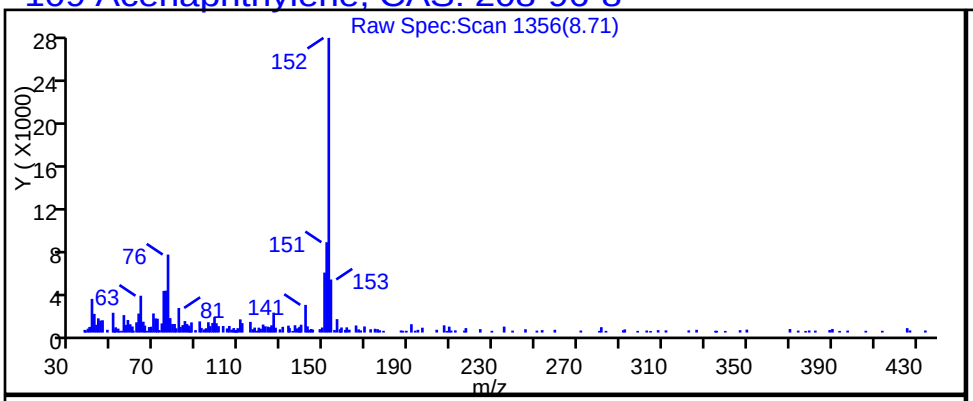
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

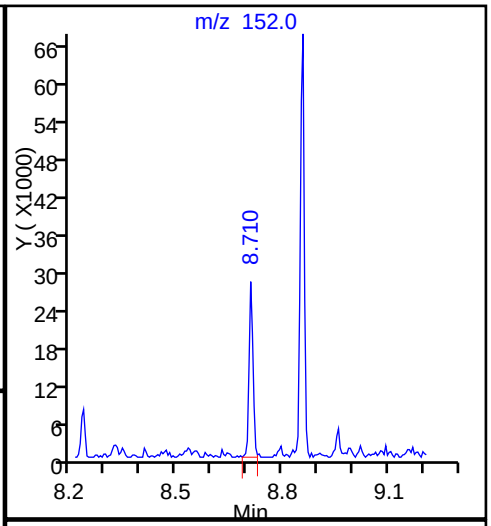
TestAmerica Canton

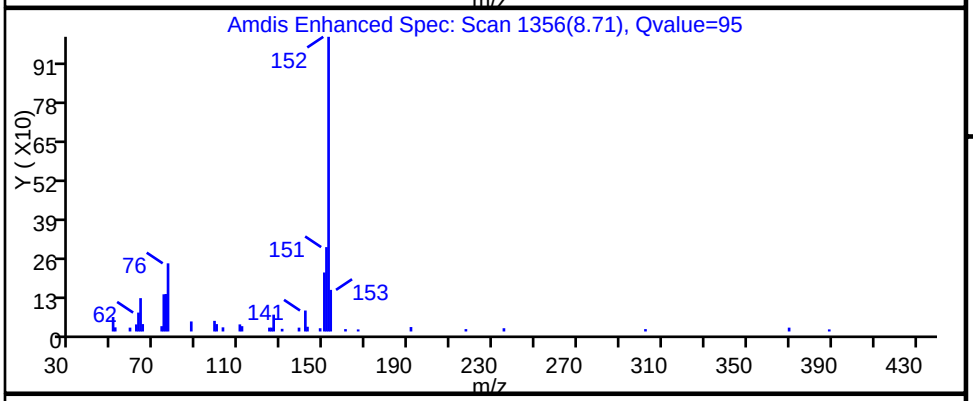
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

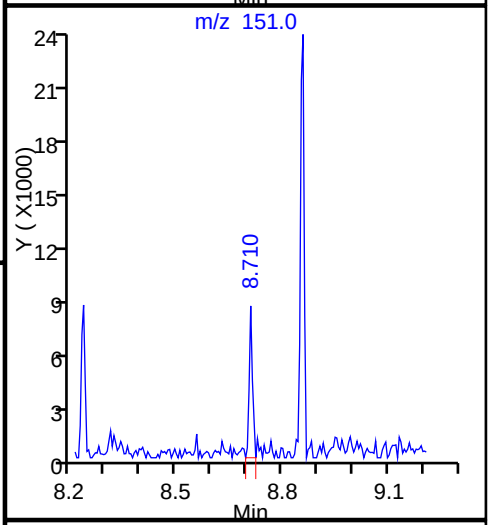
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

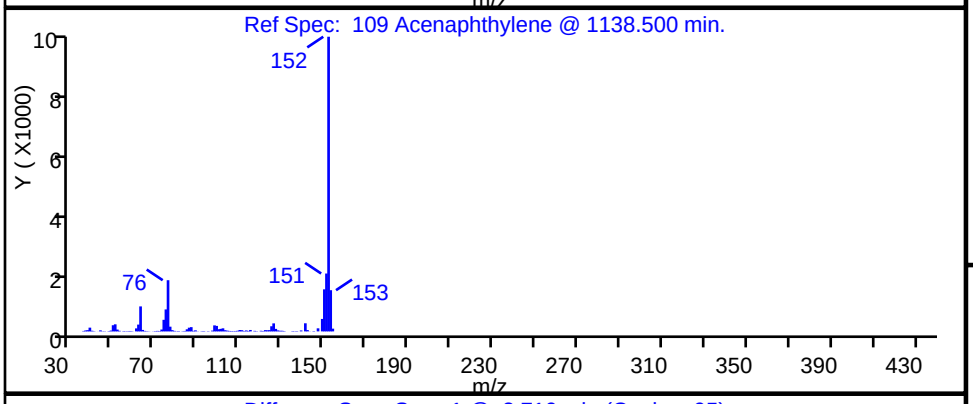
109 Acenaphthylene, CAS: 208-96-8

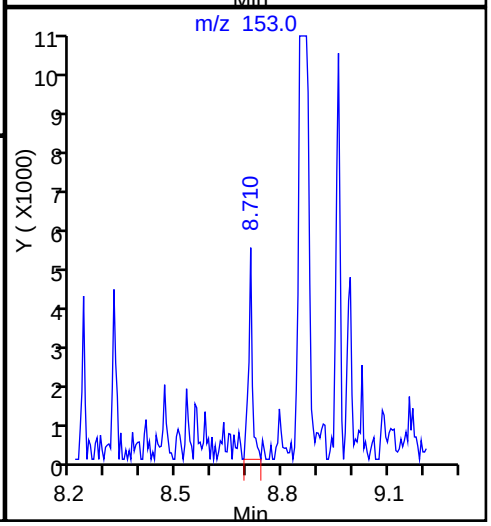


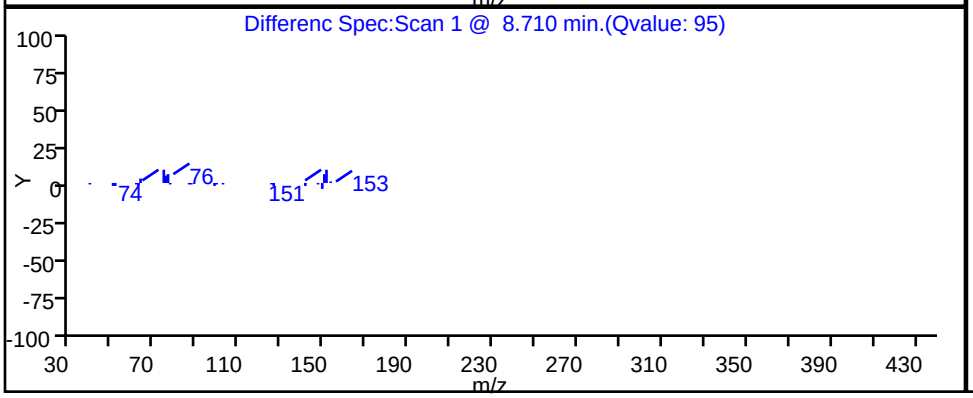












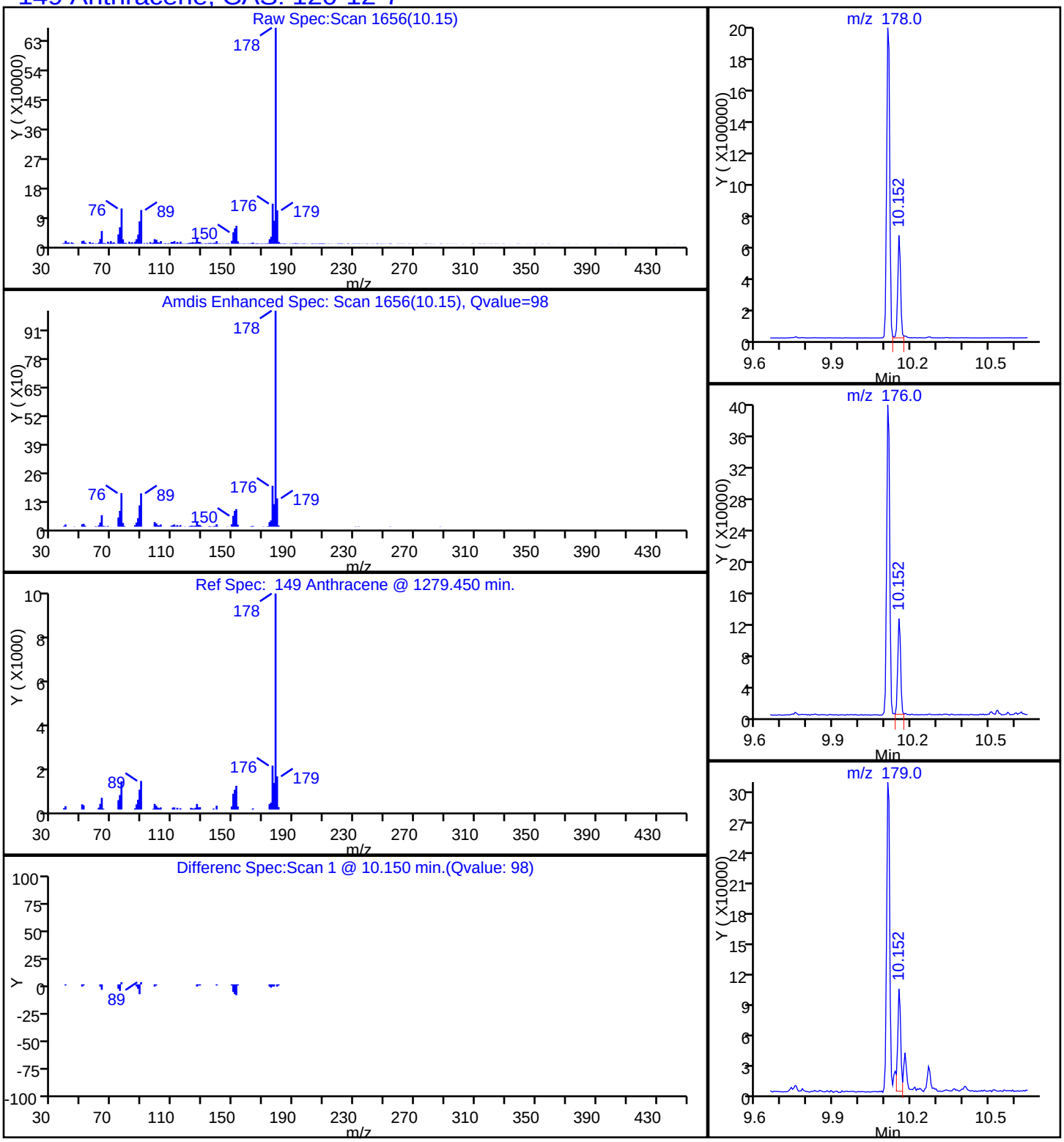
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

149 Anthracene, CAS: 120-12-7



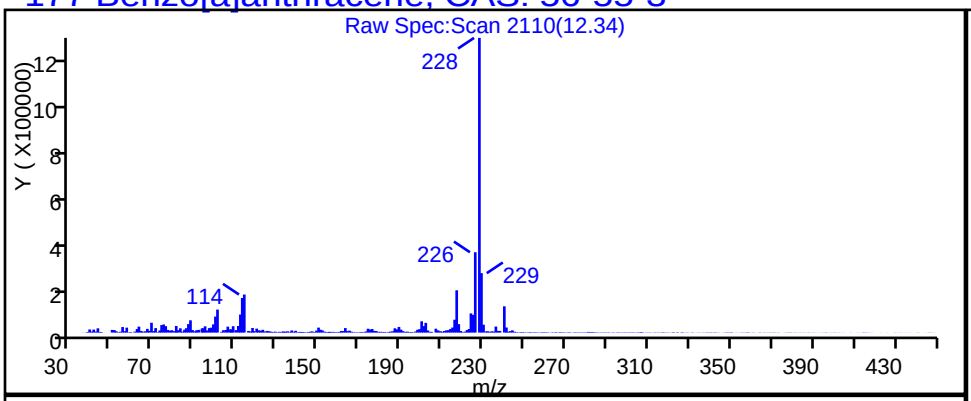
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

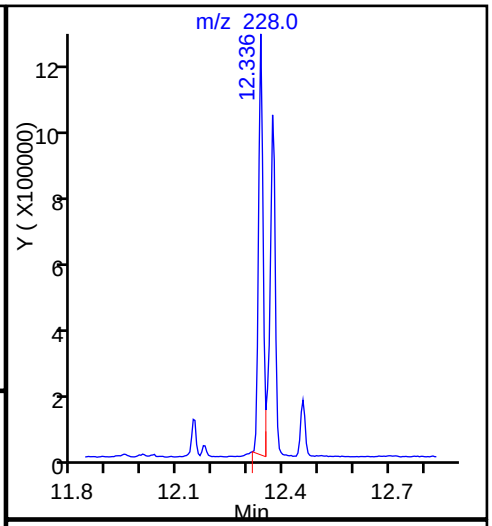
TestAmerica Canton

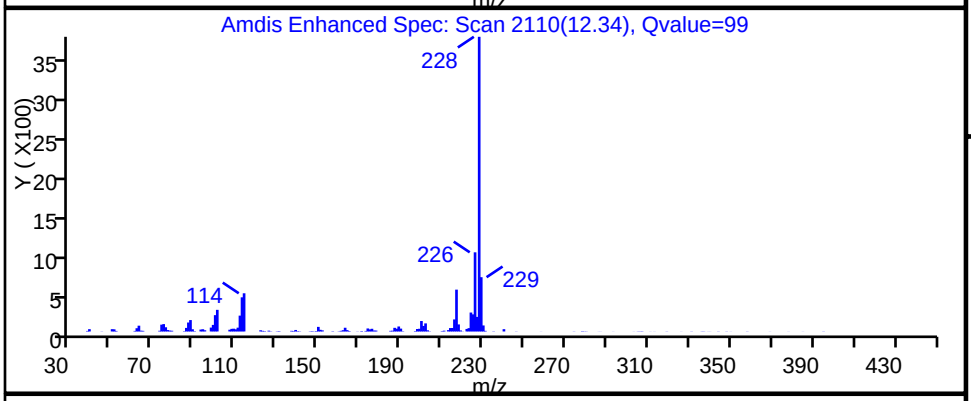
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

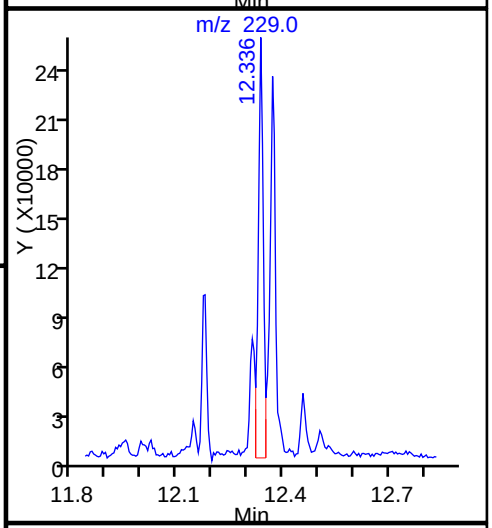
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

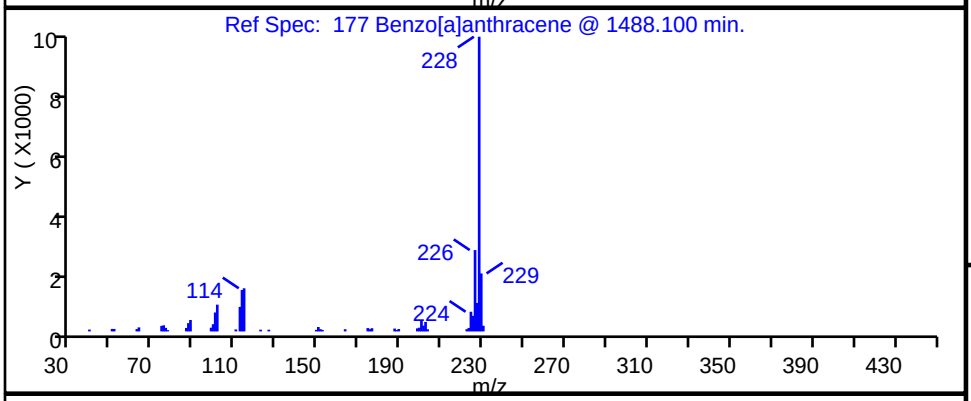
177 Benzo[a]anthracene, CAS: 56-55-3

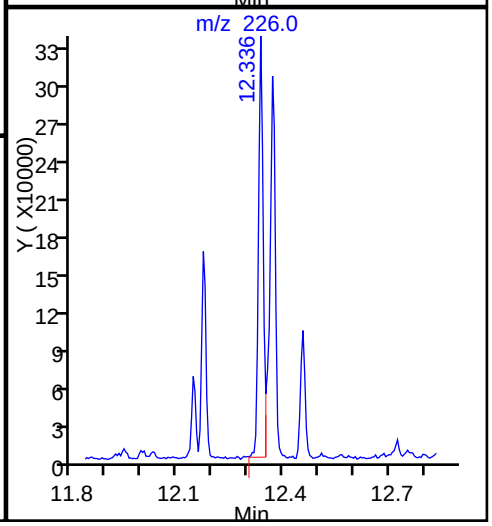


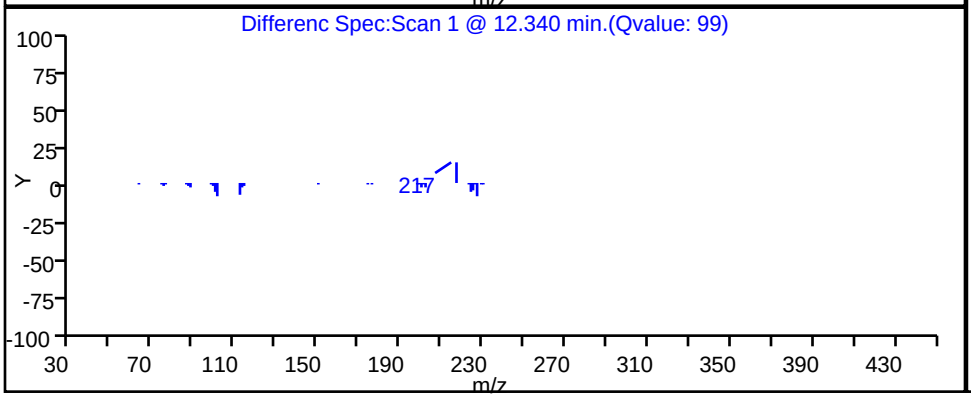












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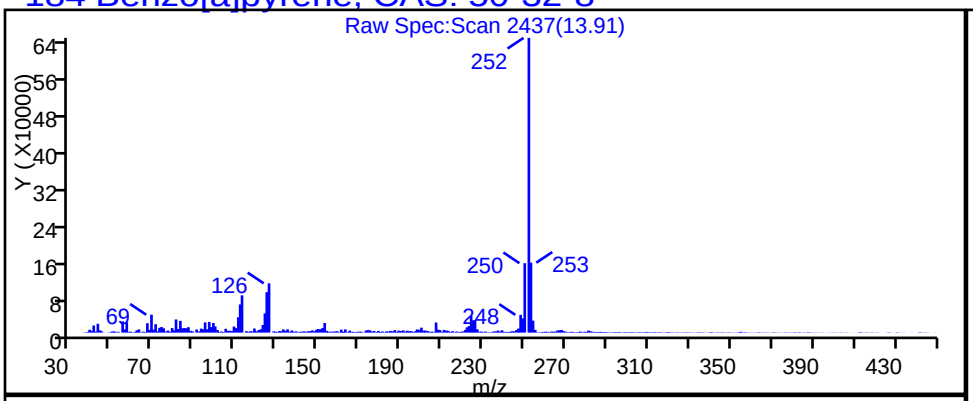
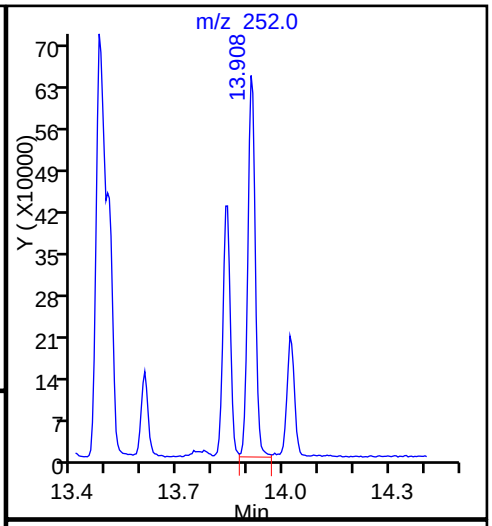
TestAmerica Canton

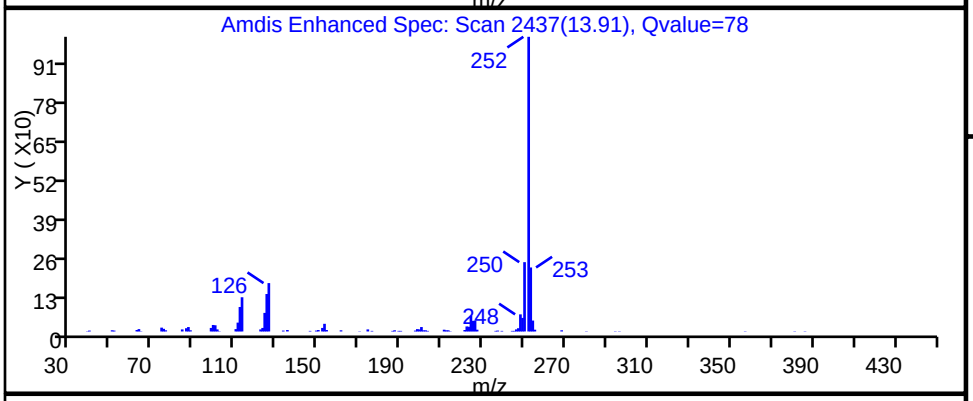
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

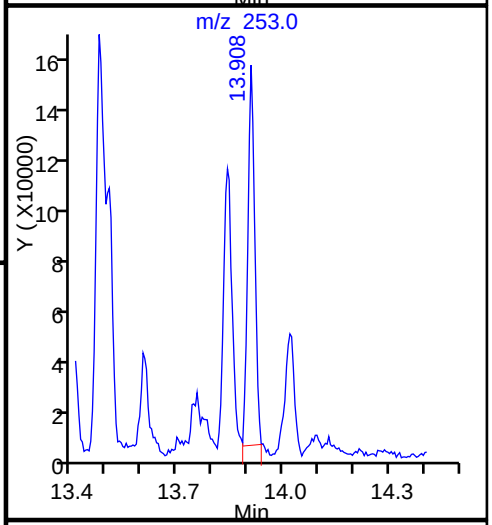
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

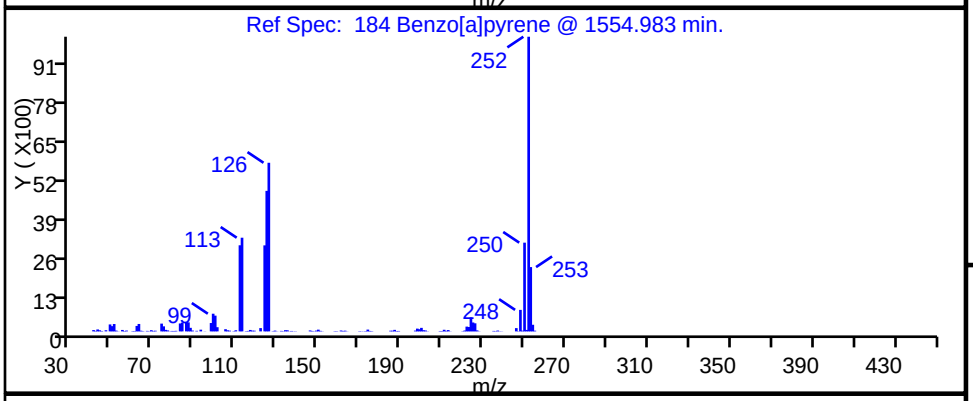
184 Benzo[a]pyrene, CAS: 50-32-8

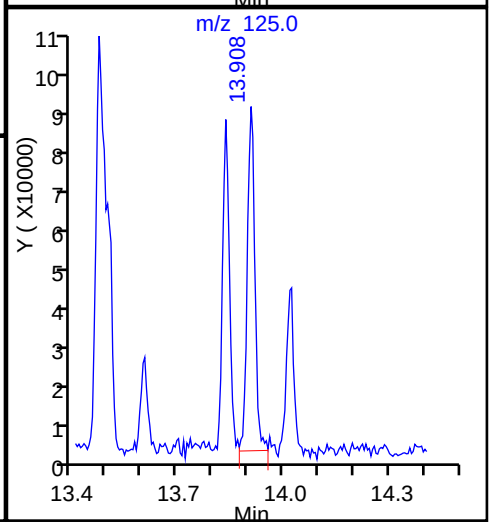


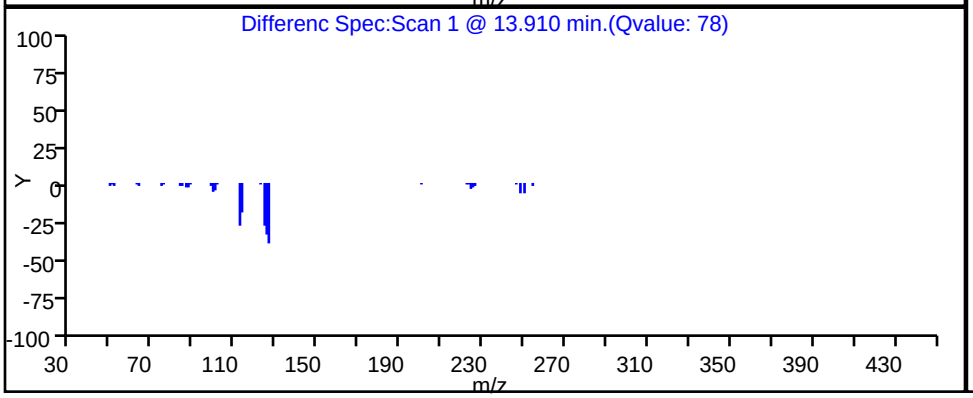












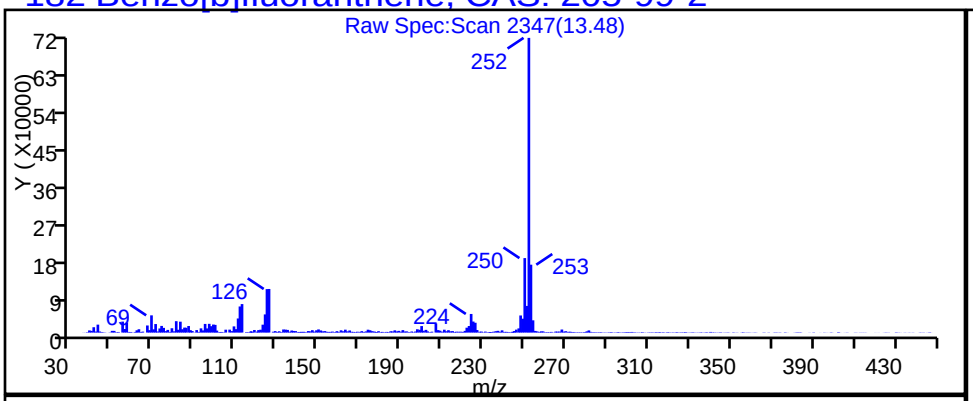
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

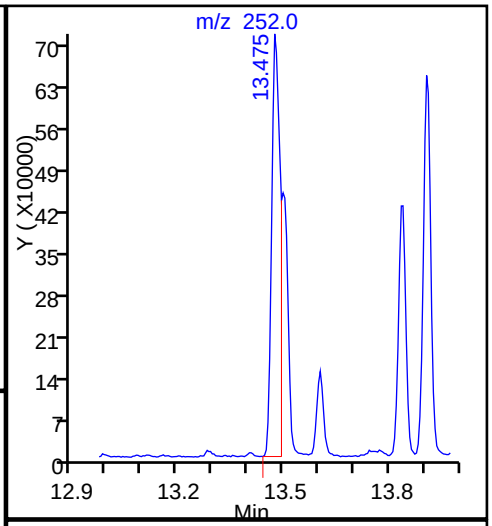
TestAmerica Canton

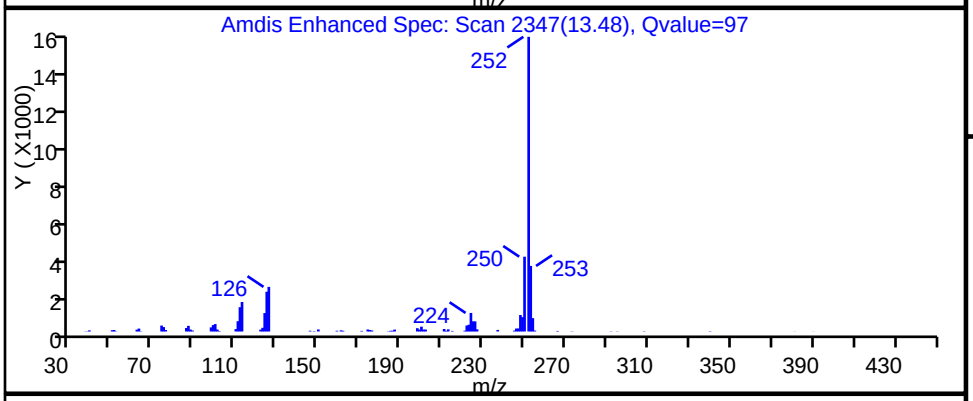
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

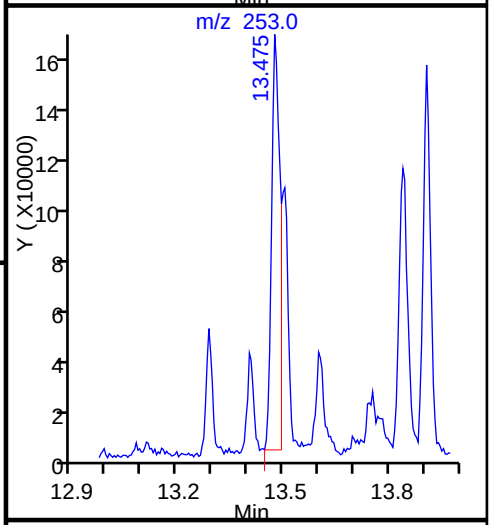
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

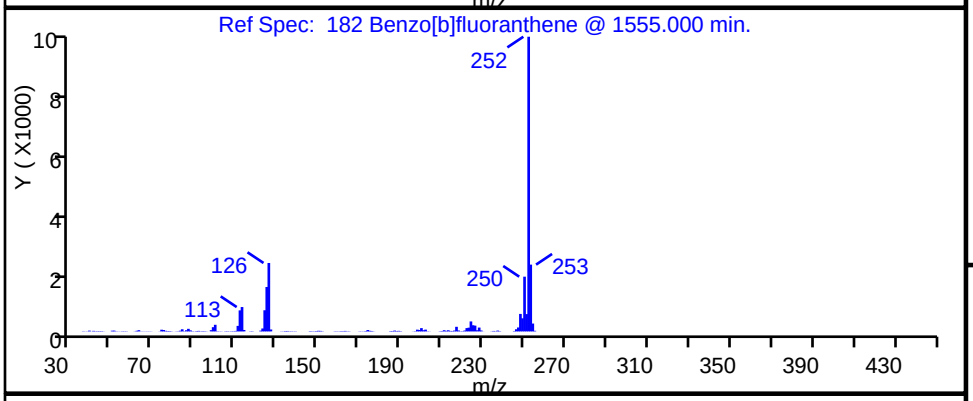
182 Benzo[b]fluoranthene, CAS: 205-99-2

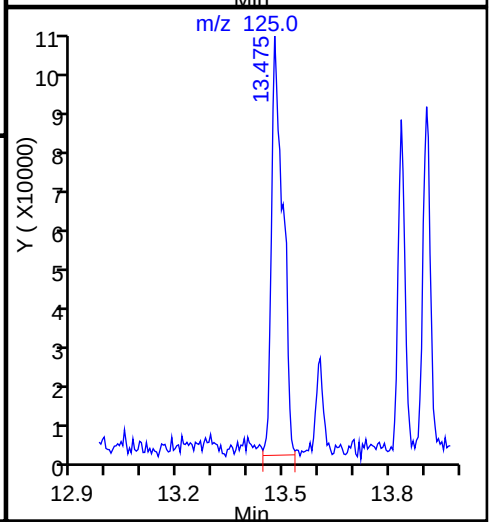


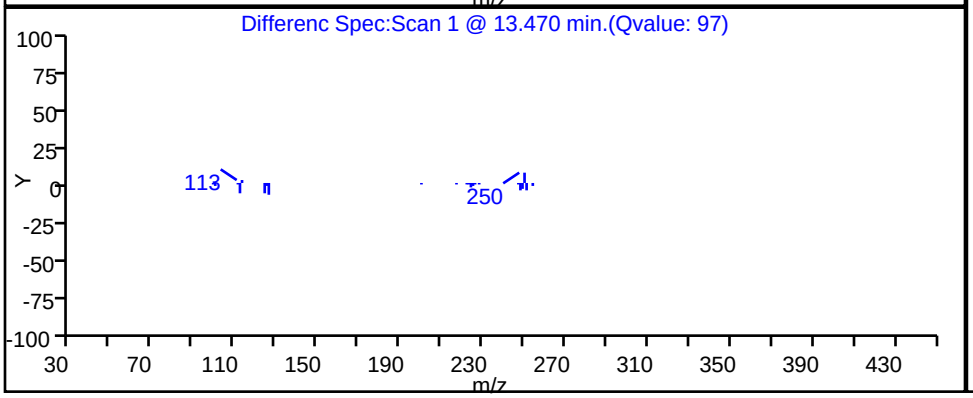












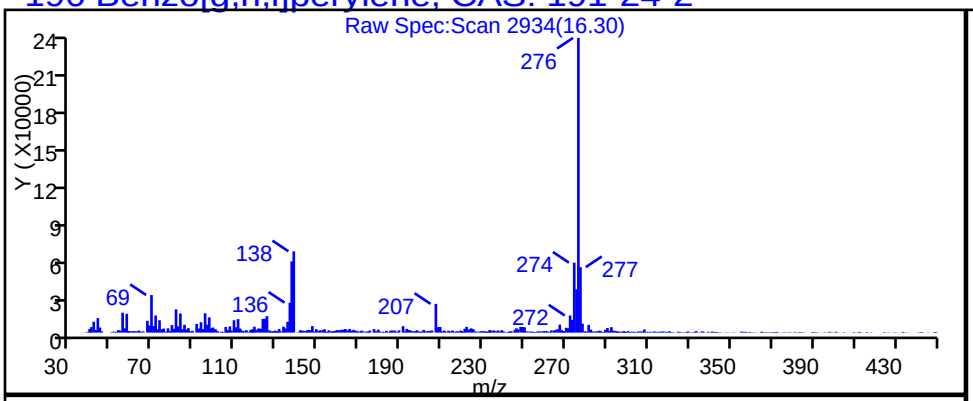
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

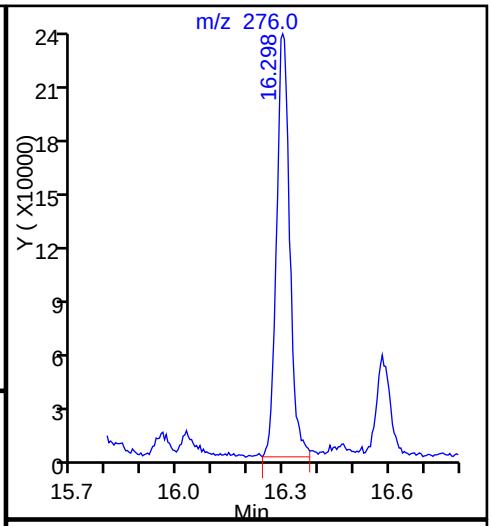
TestAmerica Canton

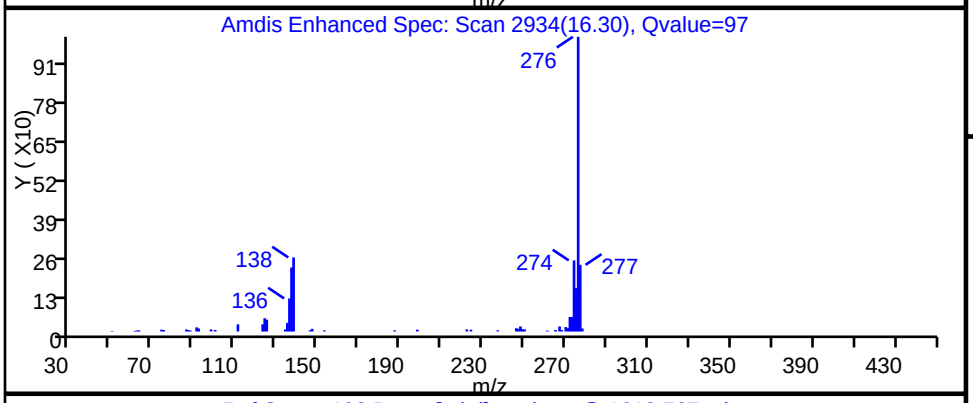
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

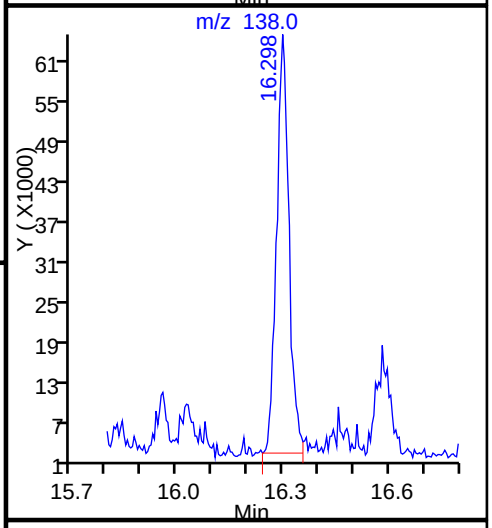
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

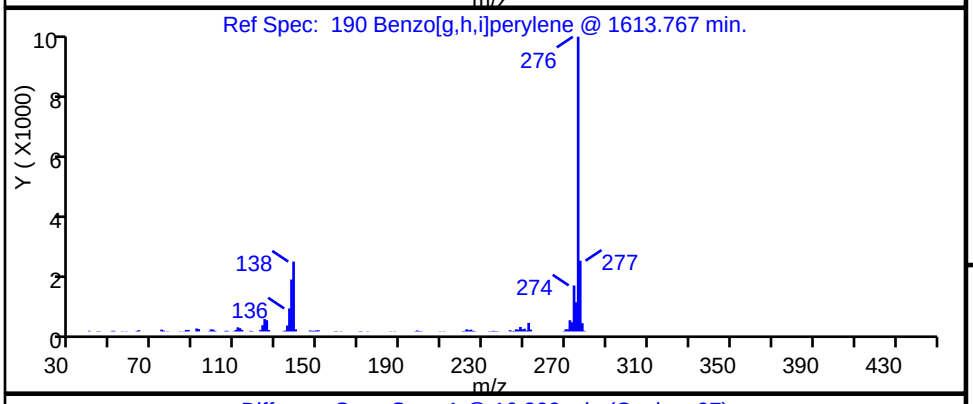
190 Benzo[g,h,i]perylene, CAS: 191-24-2

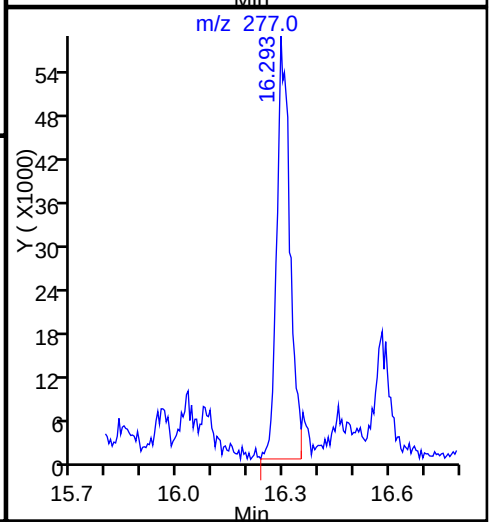


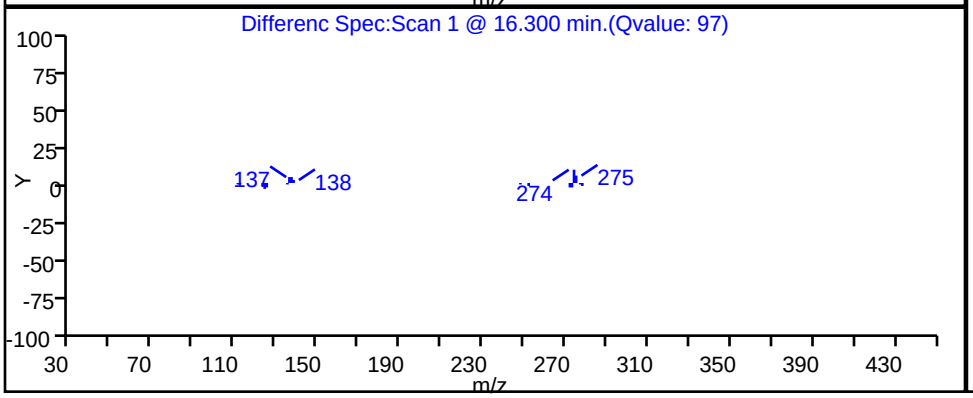












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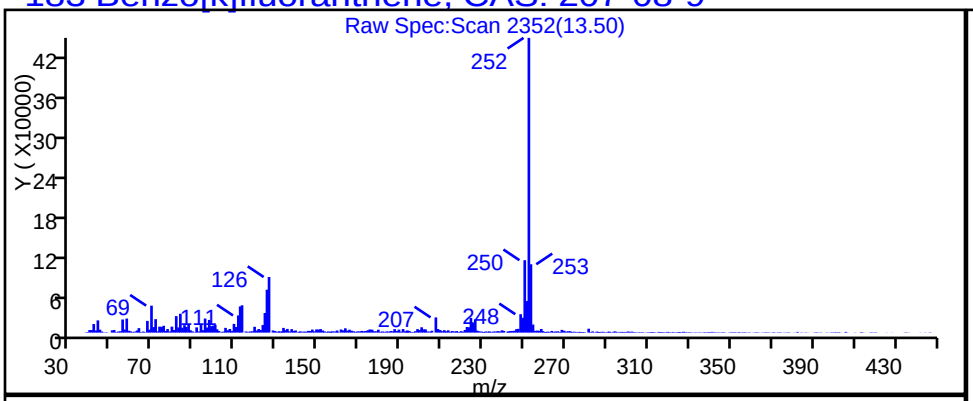
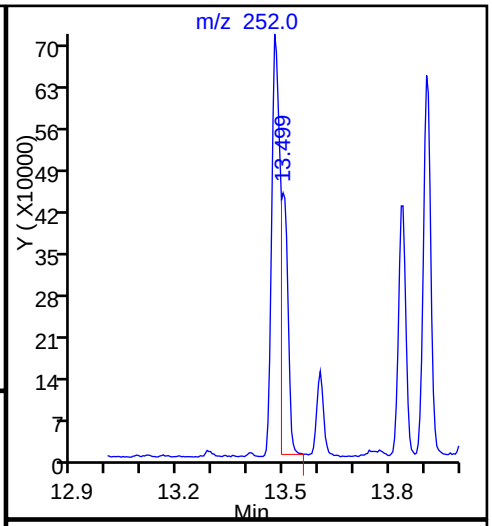
TestAmerica Canton

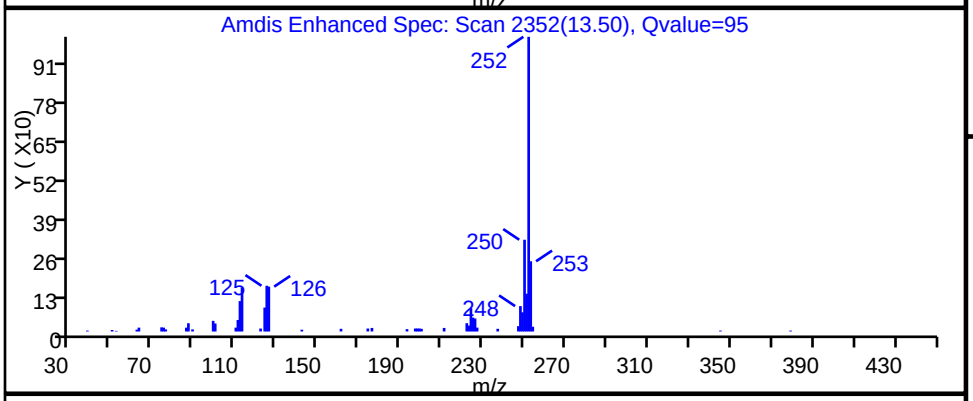
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

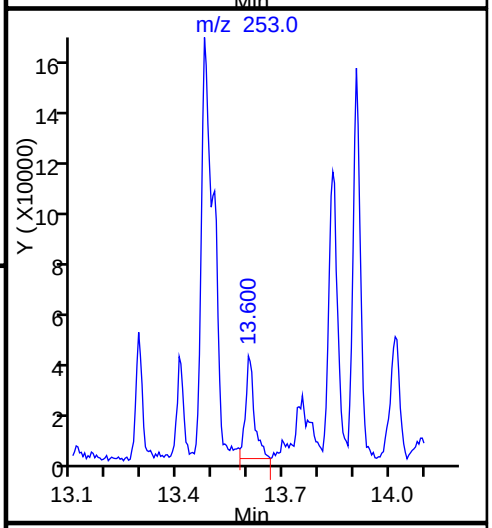
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

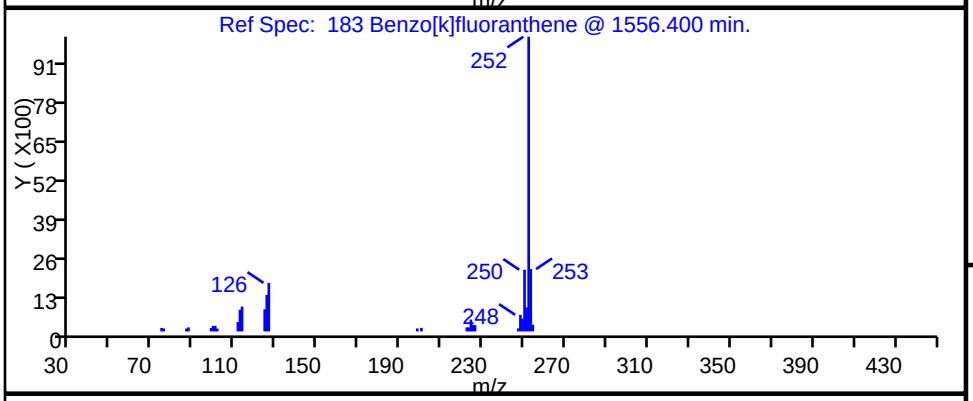
183 Benzo[k]fluoranthene, CAS: 207-08-9

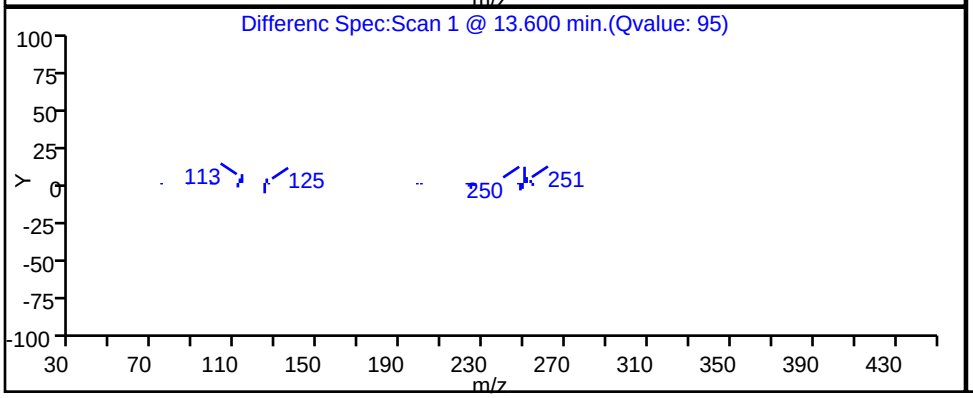


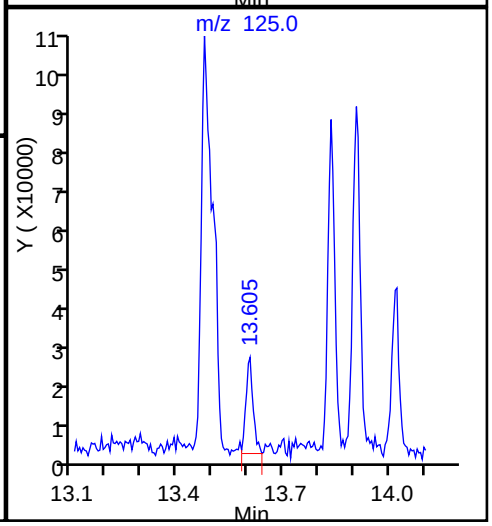












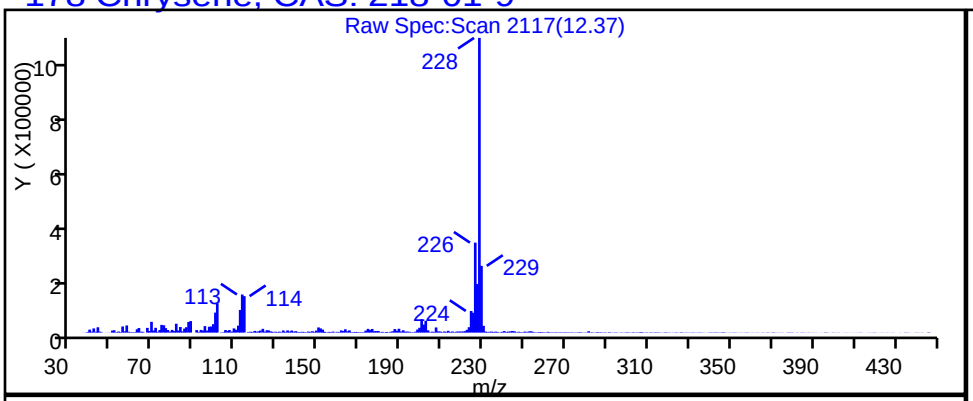
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

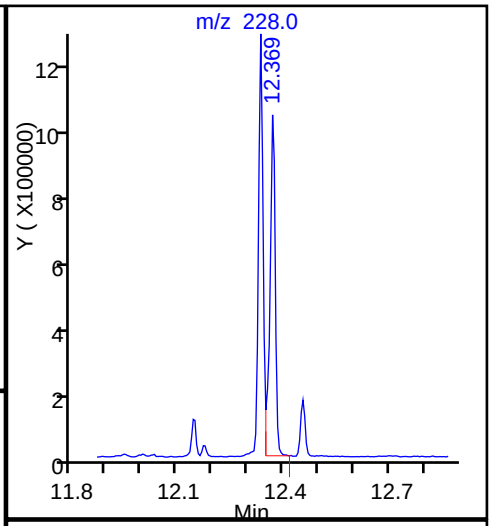
TestAmerica Canton

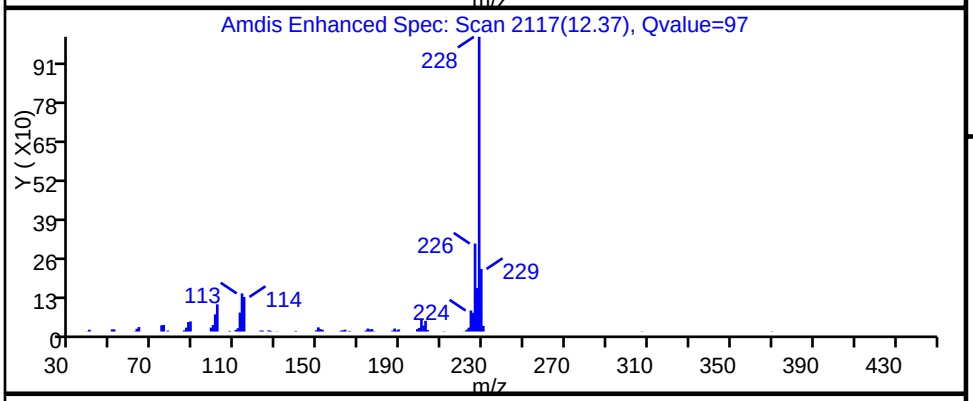
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

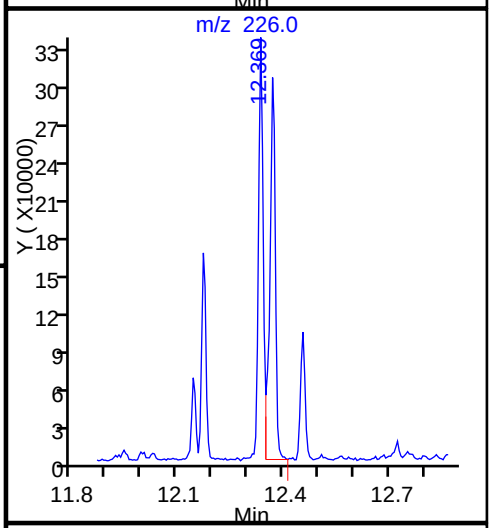
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

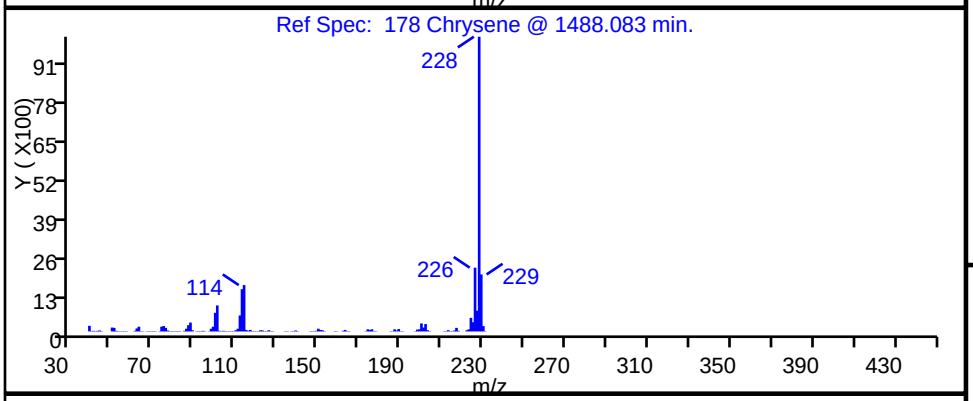
178 Chrysene, CAS: 218-01-9

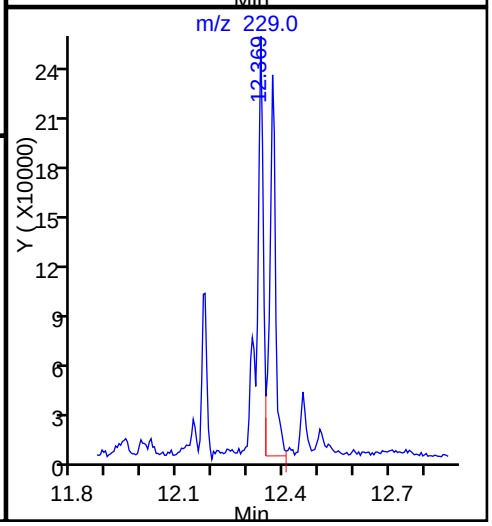


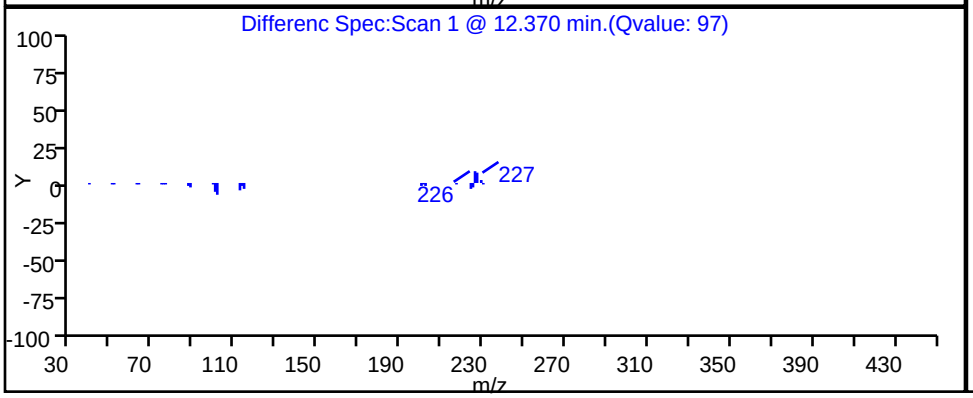












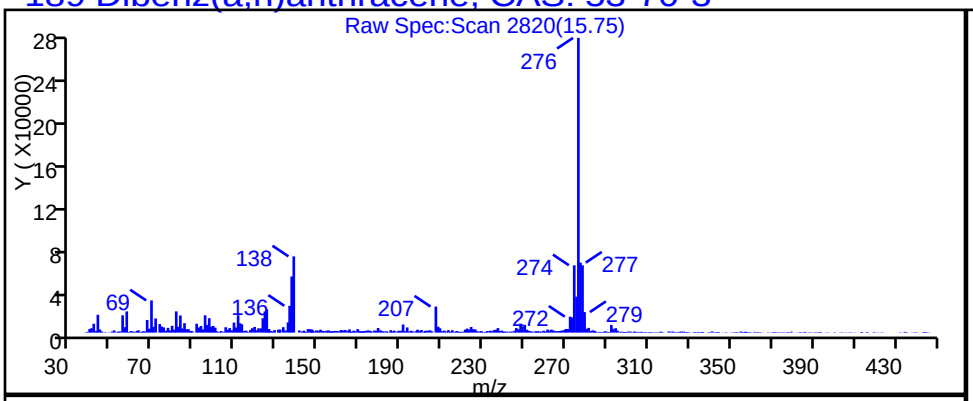
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

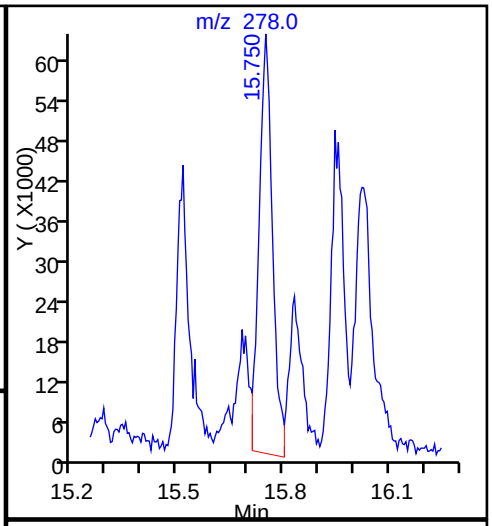
TestAmerica Canton

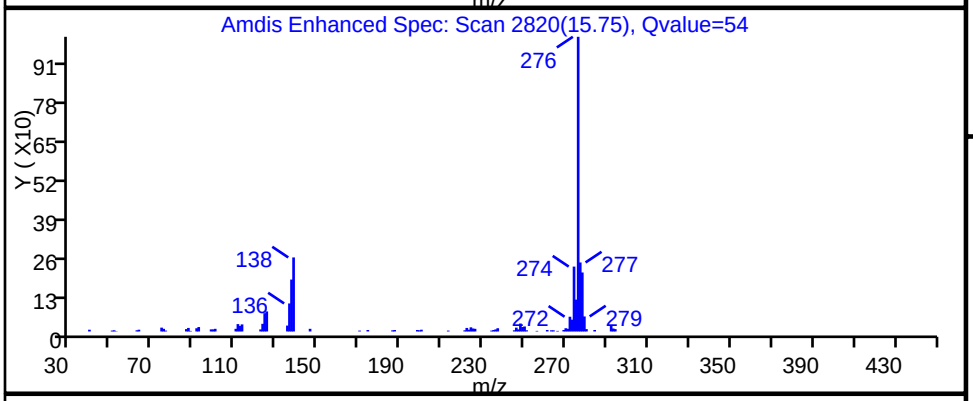
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

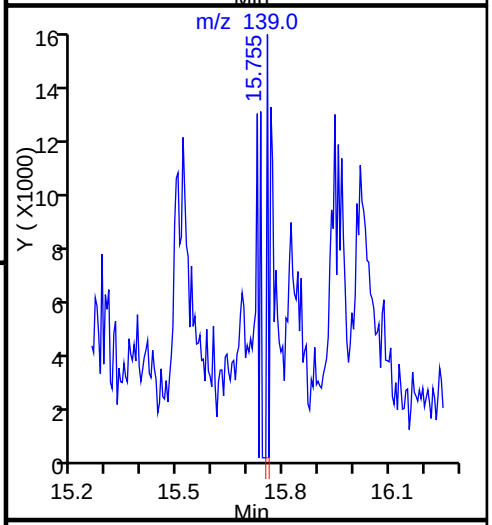
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

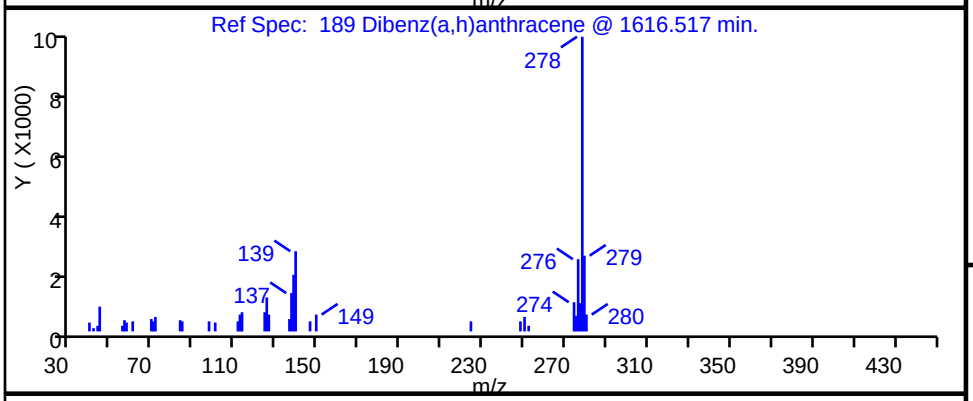
189 Dibenz(a,h)anthracene, CAS: 53-70-3

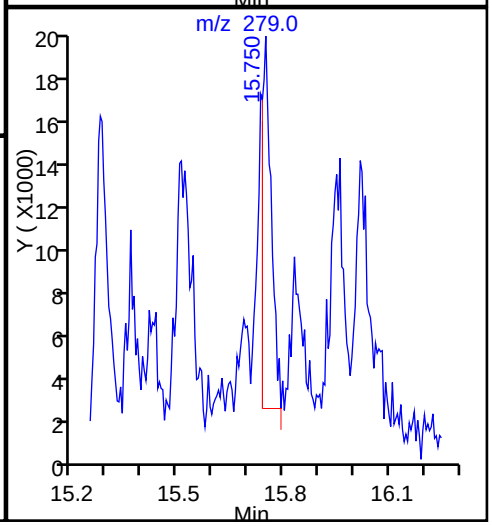


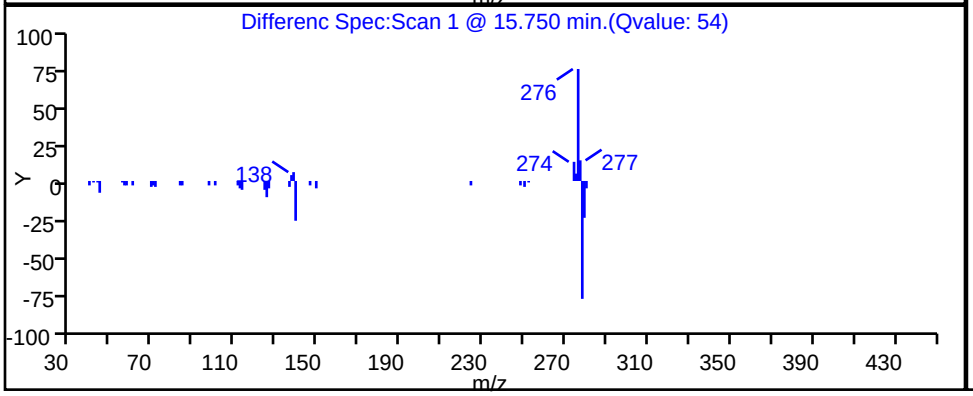












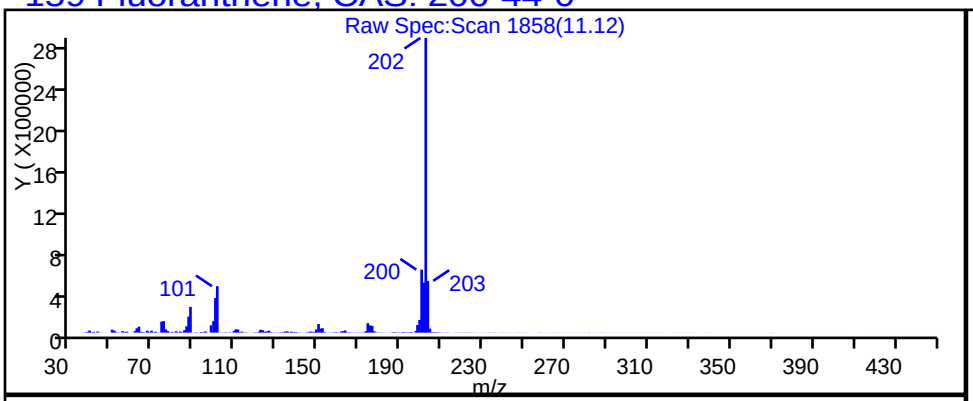
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

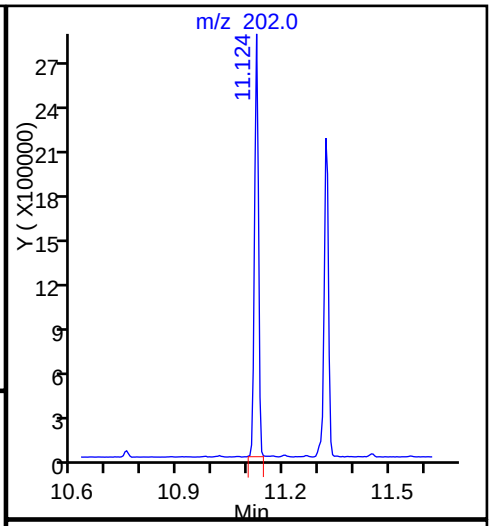
TestAmerica Canton

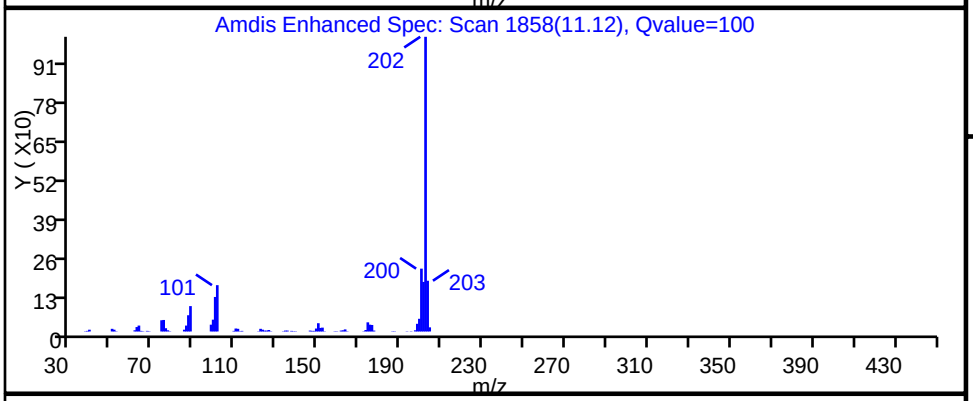
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

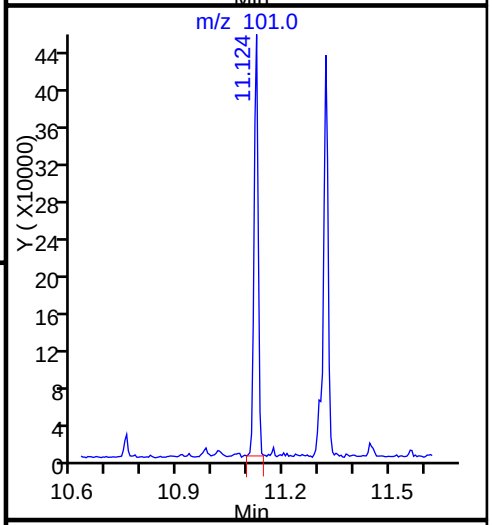
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

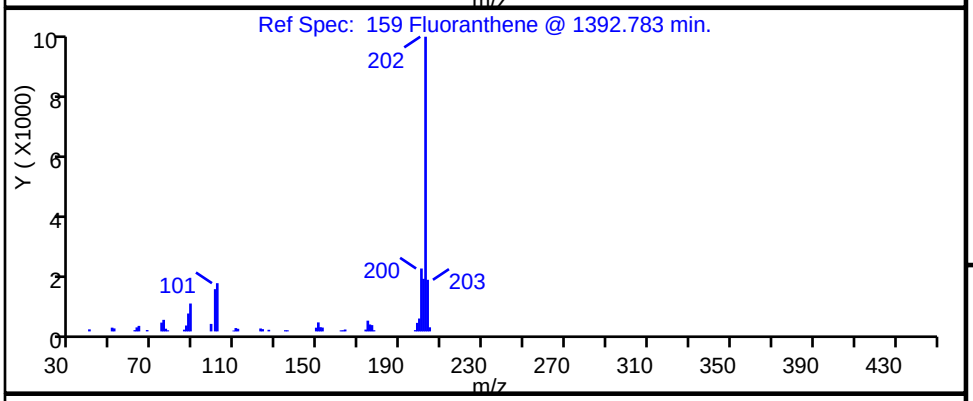
159 Fluoranthene, CAS: 206-44-0

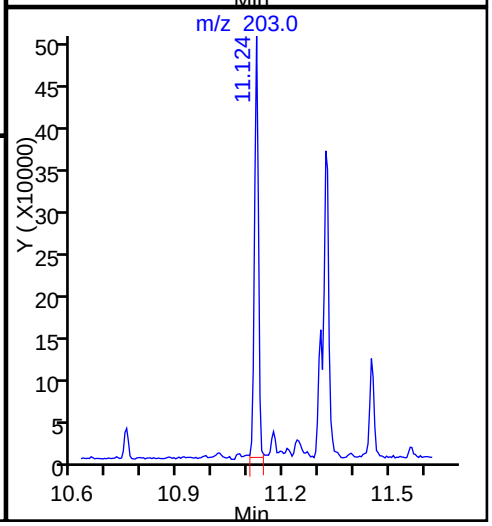


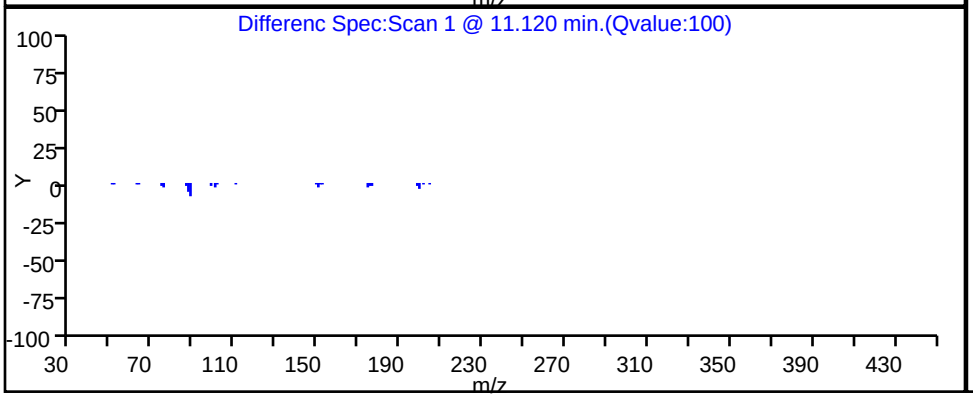












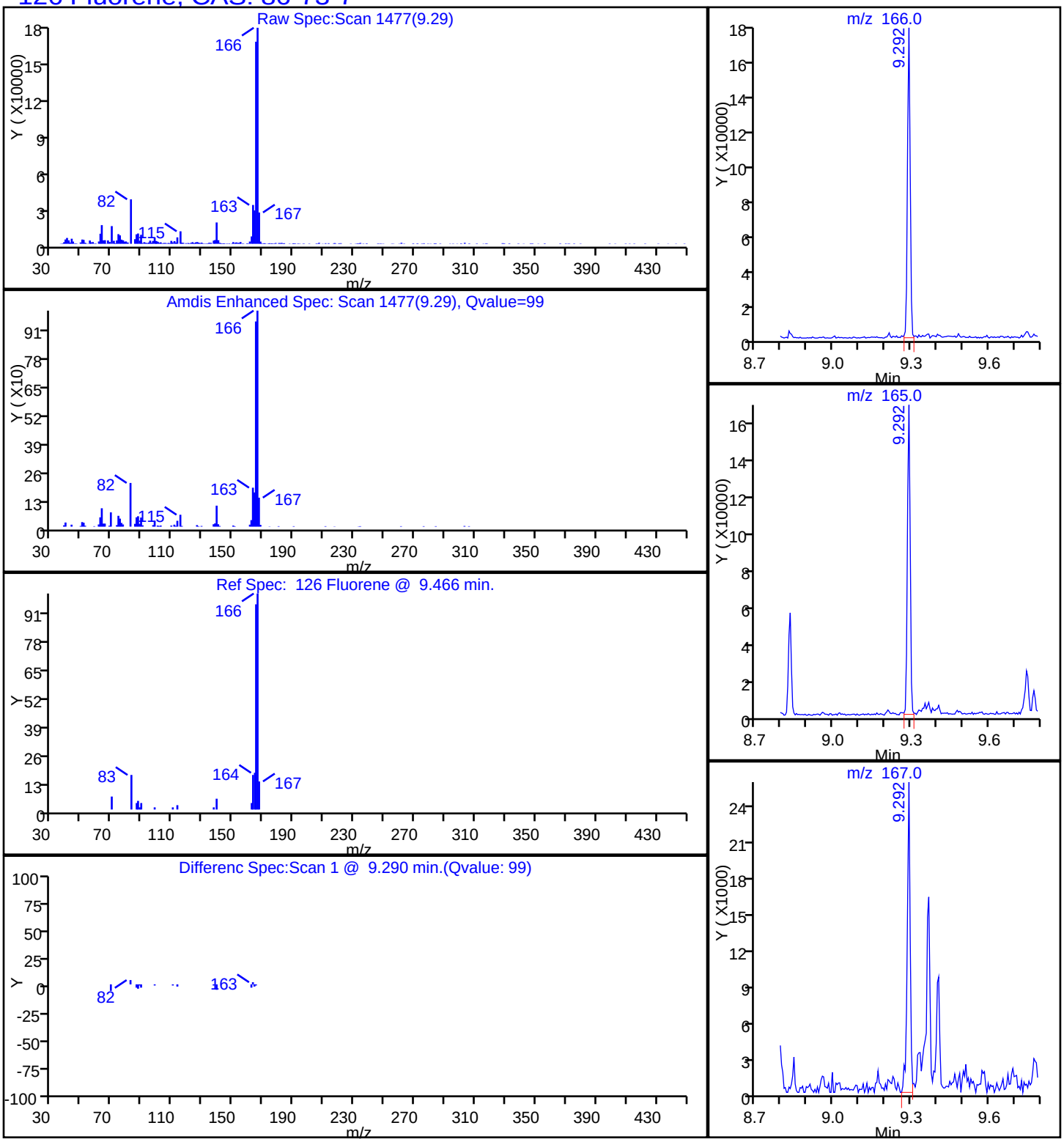
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

126 Fluorene, CAS: 86-73-7



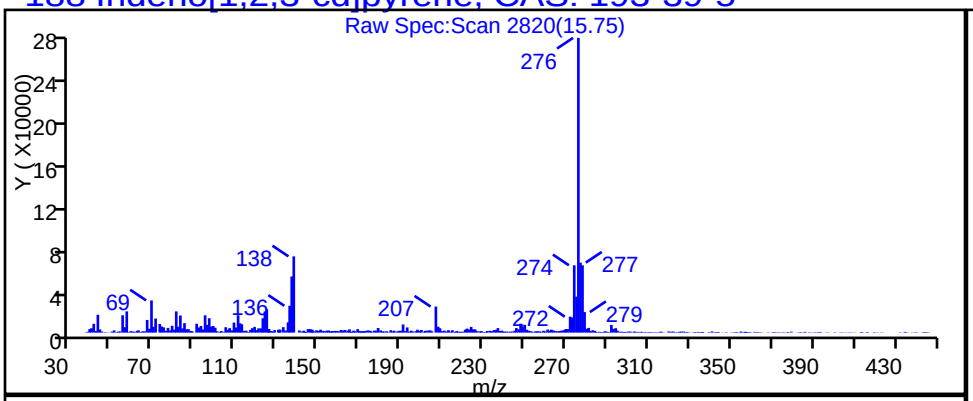
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

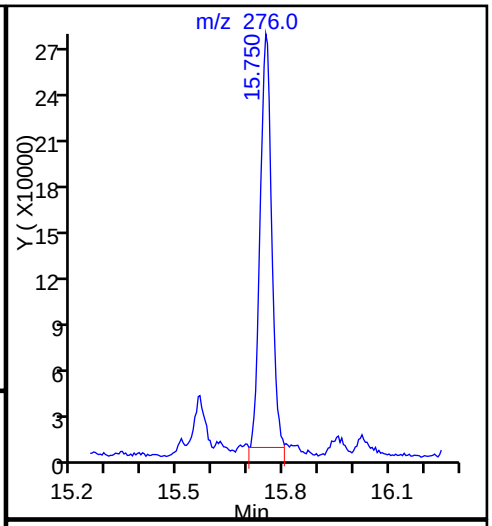
TestAmerica Canton

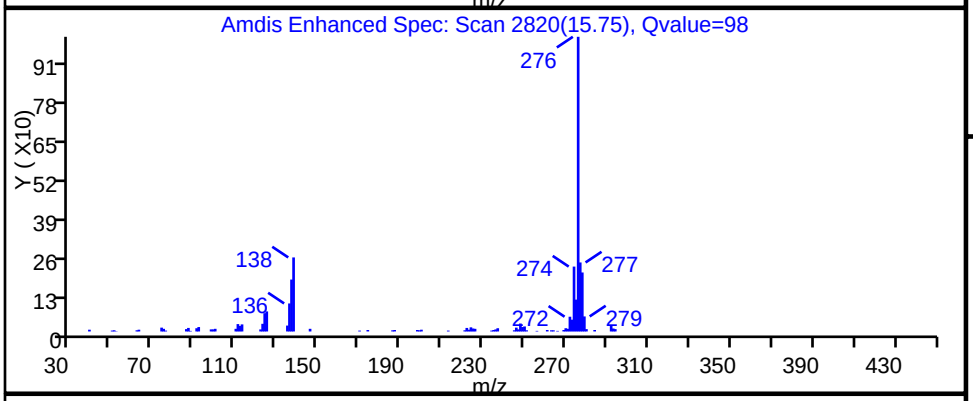
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

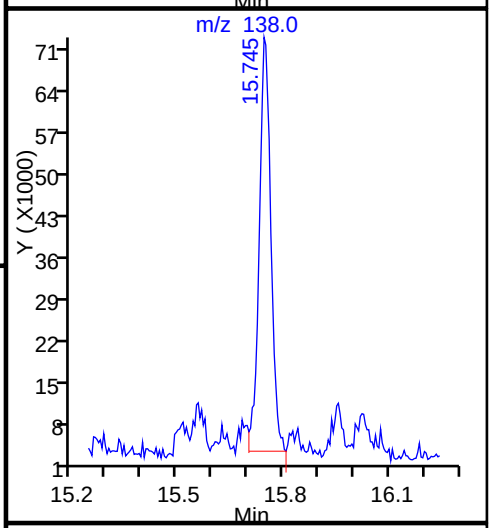
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

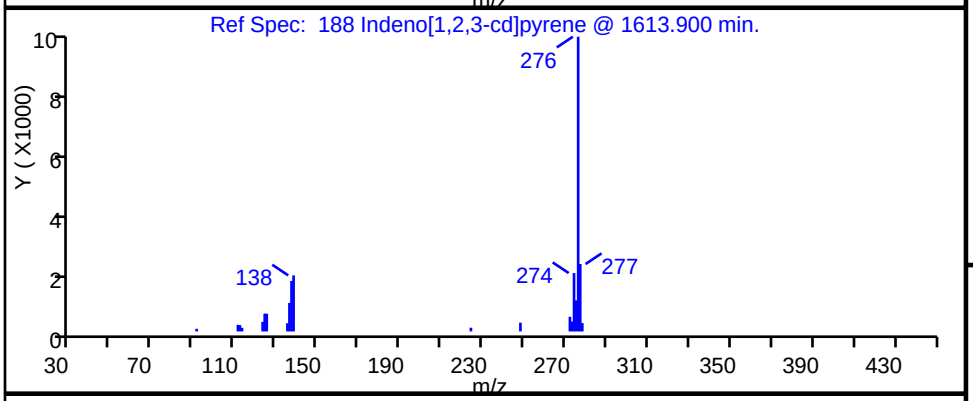
188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

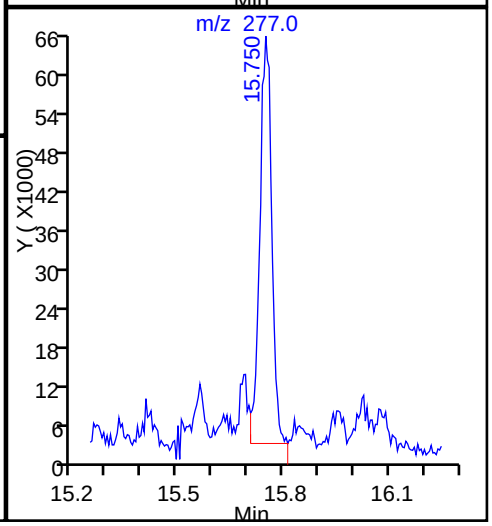


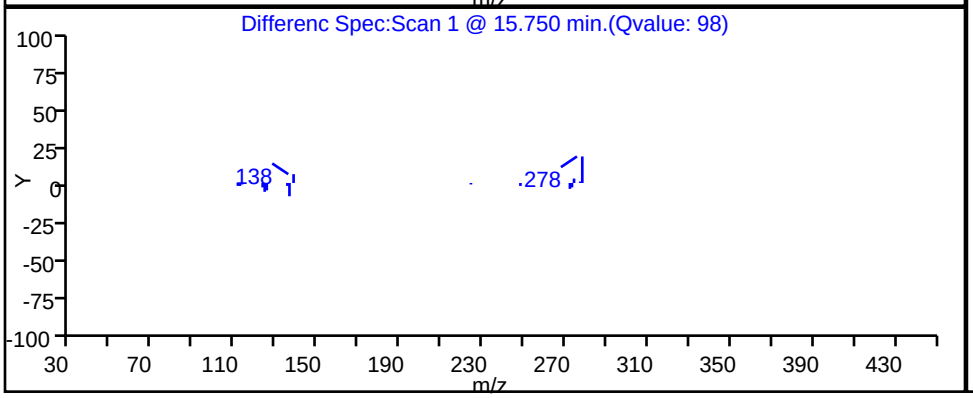












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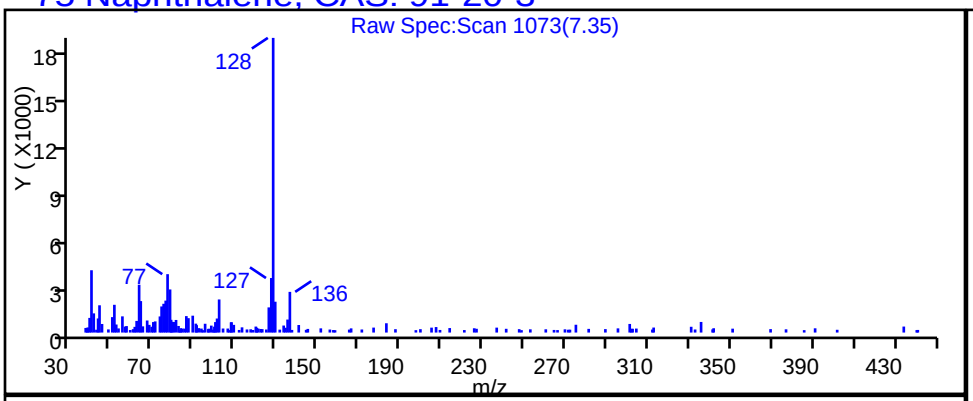
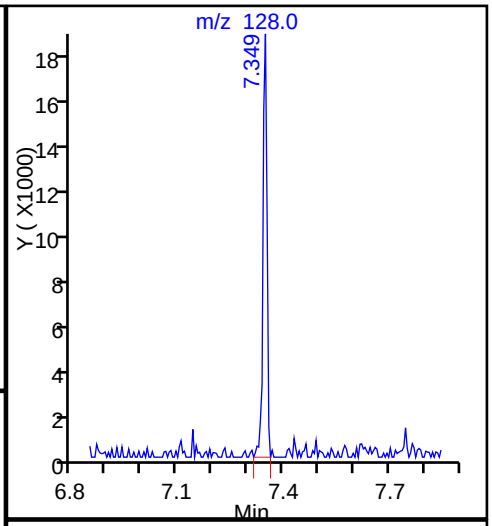
TestAmerica Canton

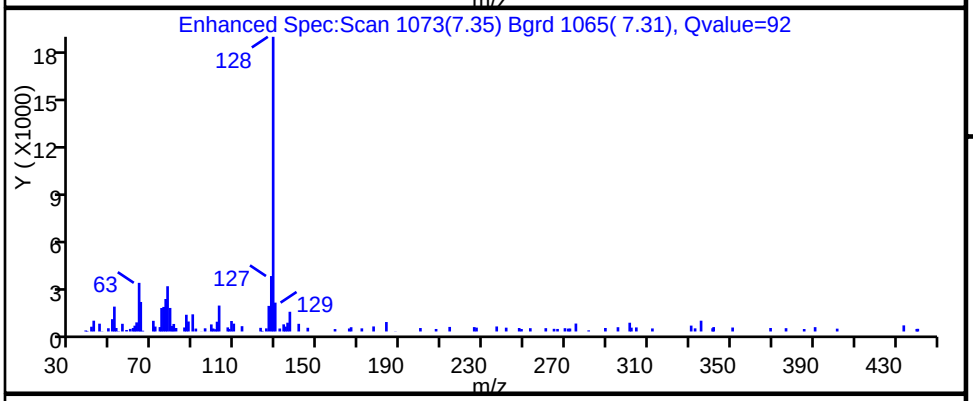
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

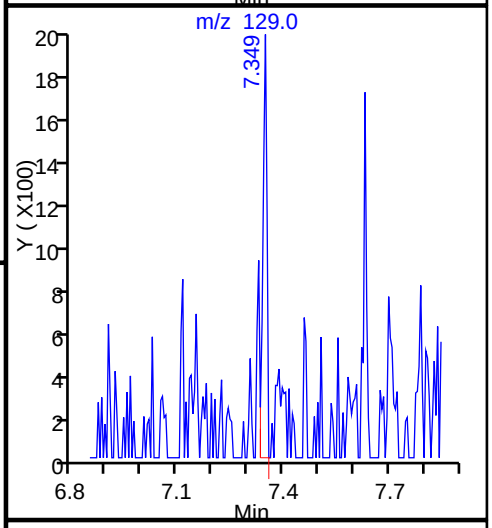
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

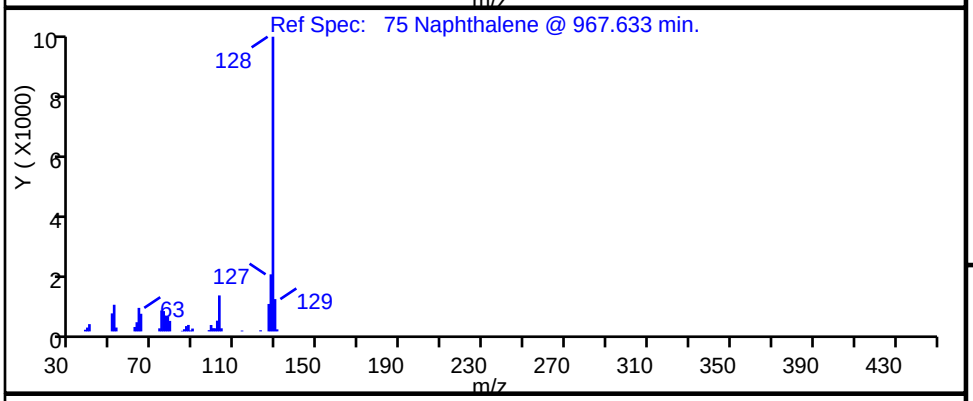
75 Naphthalene, CAS: 91-20-3

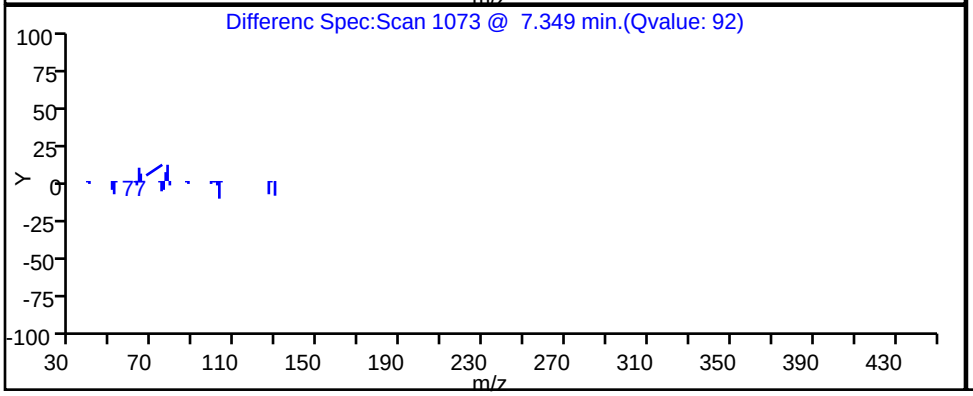


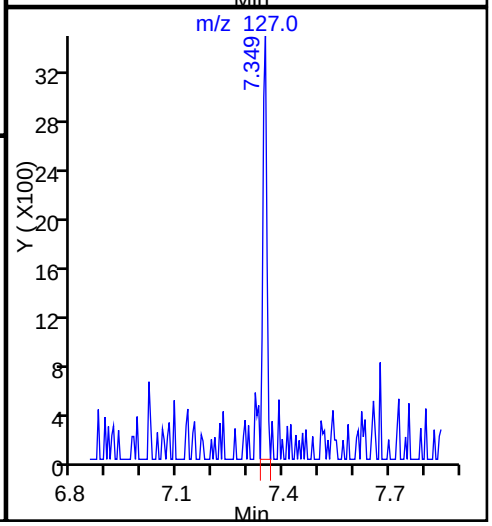












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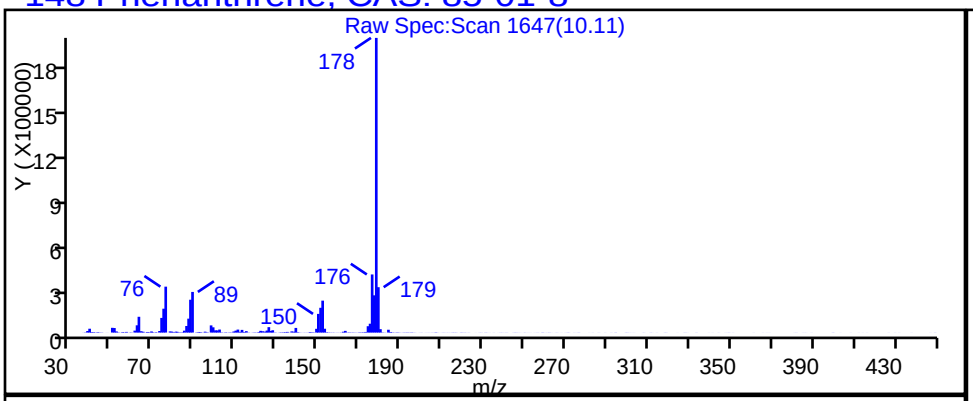
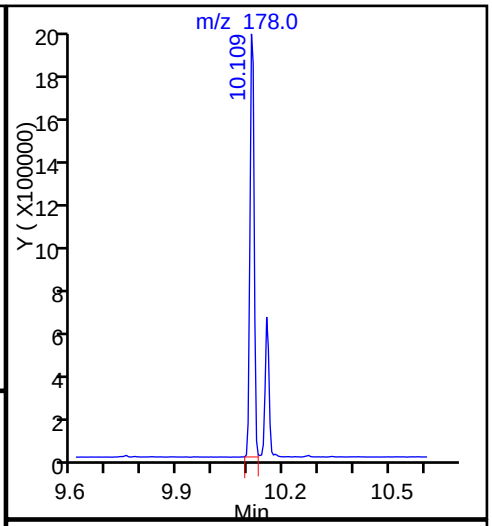
TestAmerica Canton

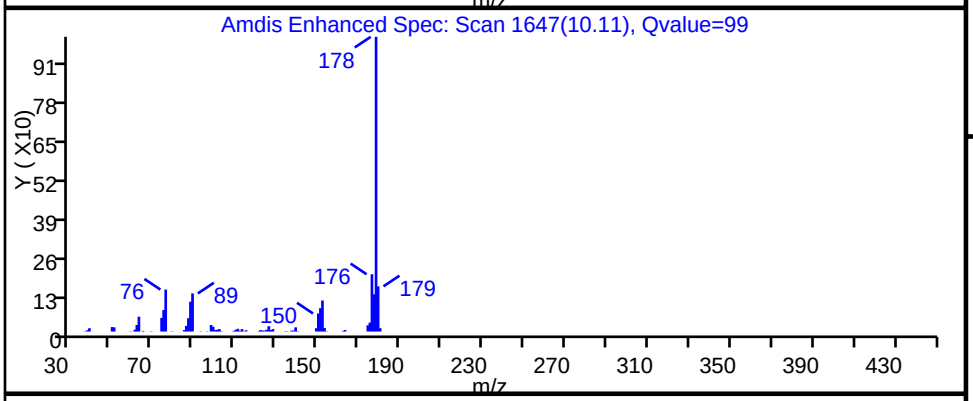
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

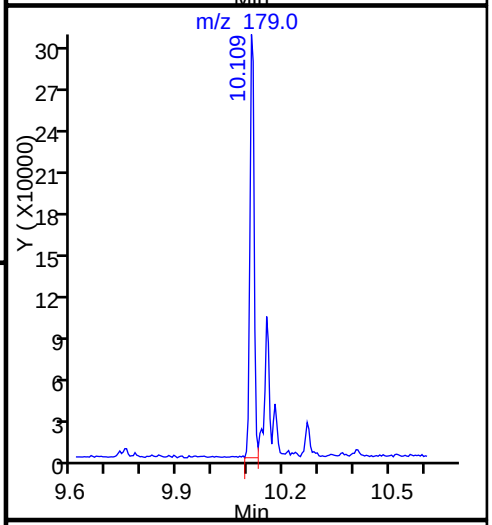
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

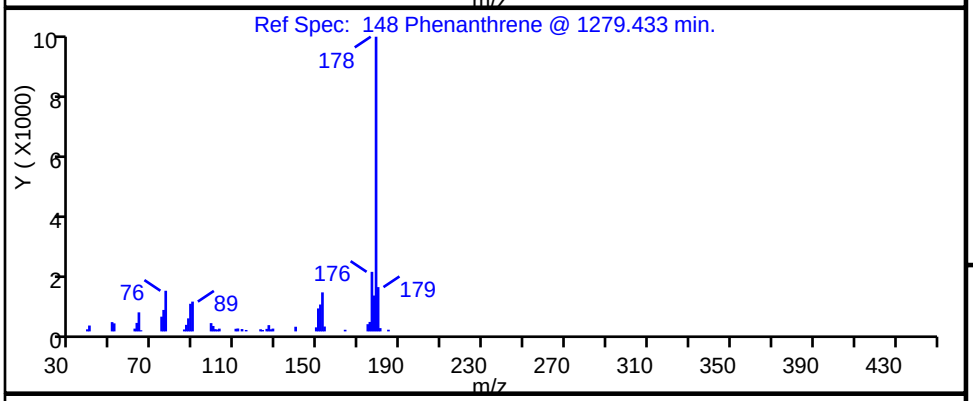
148 Phenanthrene, CAS: 85-01-8

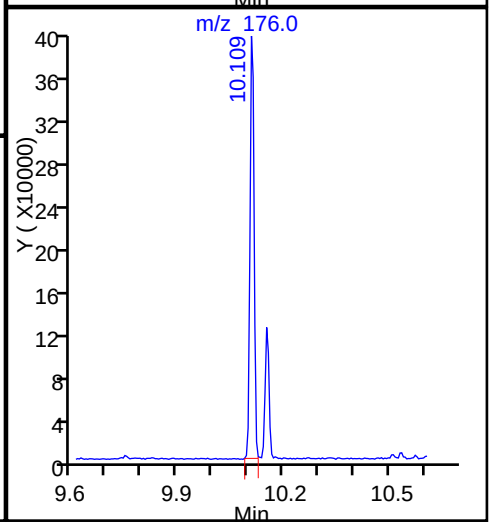


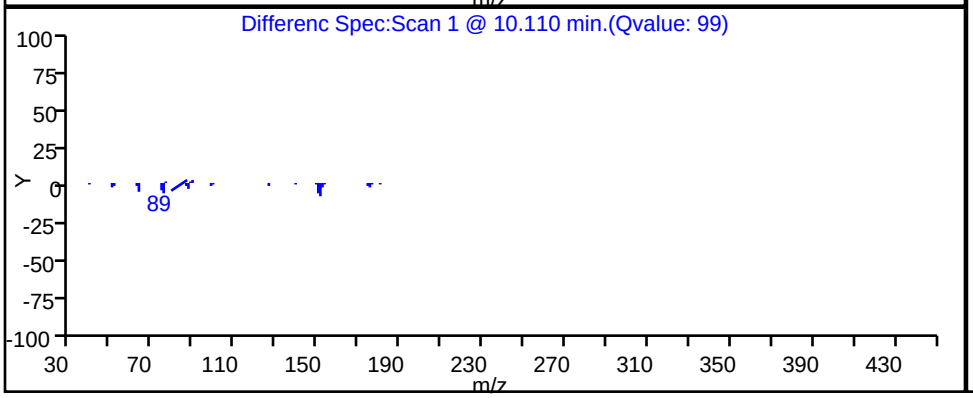












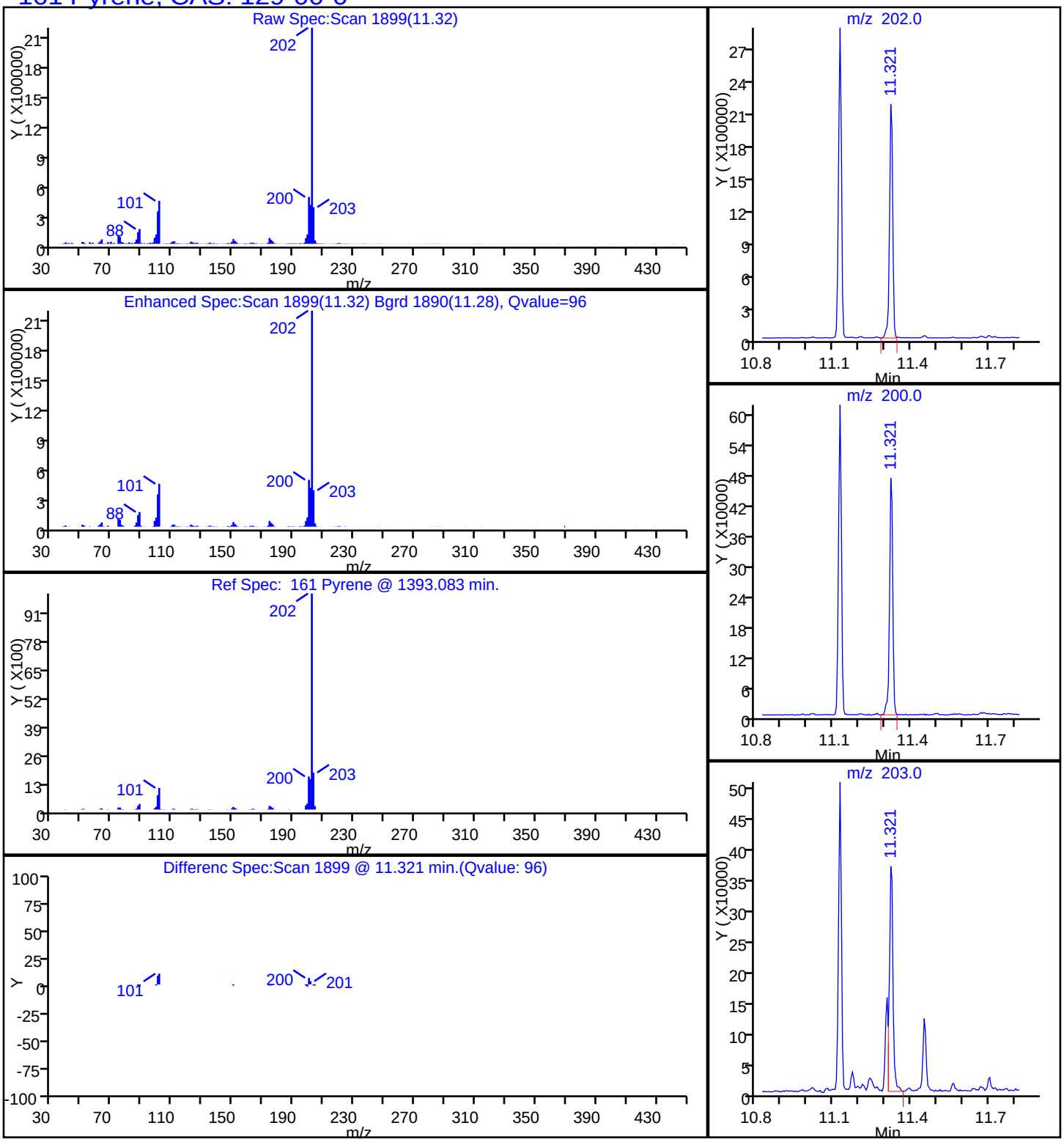
Report Date: 24-Aug-2015 09:27:09 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D

Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

161 Pyrene, CAS: 129-00-0



Manual Integration/User Assign Peak Report

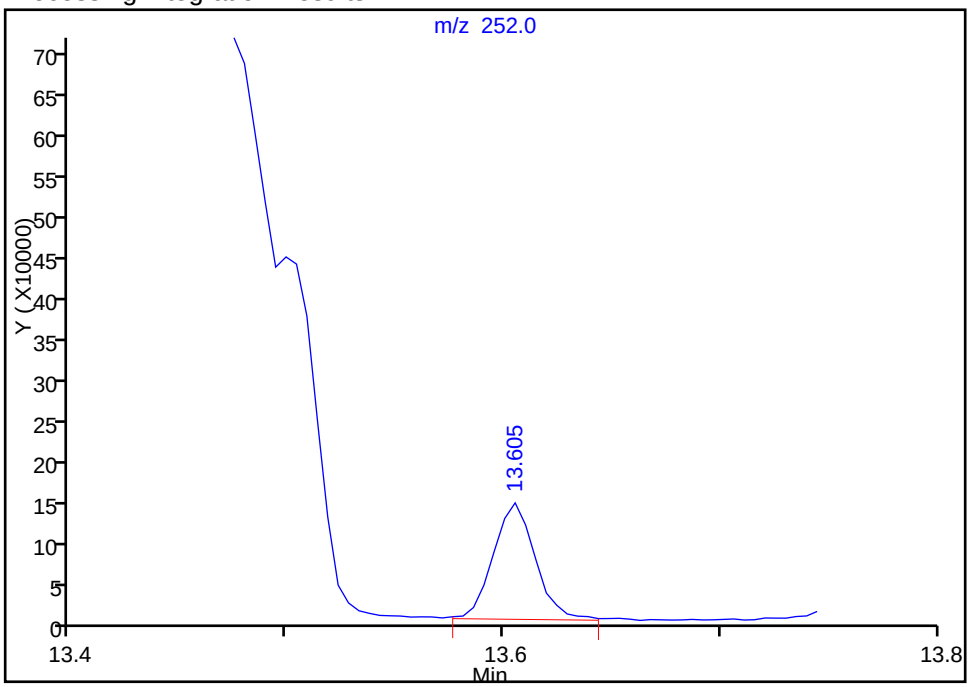
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822023.D				
Injection Date:	22-Aug-2015 19:05:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-3-A	Lab Sample ID:	240-54467-3		
Client ID:	D-VB-F-13-2				
Operator ID:	001710	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	6.6670		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

183 Benzo[k]fluoranthene, CAS: 207-08-9

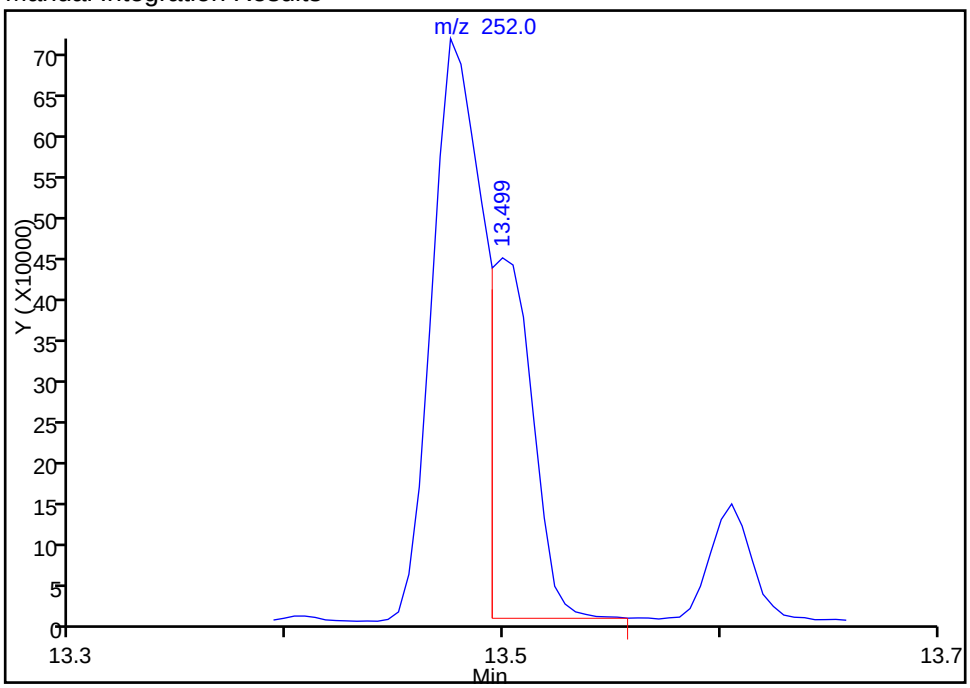
Processing Integration Results

RT: 13.61
Area: 191657
Amount: 1.058894
Amount Units: ng/ul



Manual Integration Results

RT: 13.50
Area: 605917
Amount: 3.347658
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:53:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-14-2 | Lab Sample ID: 240-54467-4

Matrix: Solid | Lab File ID: 50822018.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:35

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.94(g) | Date Analyzed: 08/22/2015 17:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	5.8	J	7.9	0.76
205-99-2	Benzo[b]fluoranthene	6.4	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	19		7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	11		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	4.1	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	4.7	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	52		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D
Lims ID: 240-54467-B-4-A Lab Sample ID: 240-54467-4
Client ID: D-VB-F-14-2
Sample Type: Client
Inject. Date: 22-Aug-2015 17:01:30 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-018
Misc. Info.: 240-54467-B-4-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 08:44:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.209	6.214	-0.005	94	126831	4.00	
* 2 Naphthalene-d8	136	7.330	7.330	0.000	98	480398	4.00	
* 3 Acenaphthene-d10	164	8.830	8.830	0.000	92	276285	4.00	
* 4 Phenanthrene-d10	188	10.090	10.090	0.000	96	470616	4.00	
* 5 Chrysene-d12	240	12.345	12.345	0.000	97	519198	4.00	
* 6 Perylene-d12	264	13.980	13.985	-0.005	97	492581	4.00	
$ 7 2-Fluorophenol	112	5.007	4.983	0.024	95	307197	5.53	
$ 8 Phenol-d5	99	5.892	5.882	0.010	97	451582	5.75	
$ 9 Nitrobenzene-d5	82	6.690	6.690	0.000	84	440484	4.73	
$ 10 2-Fluorobiphenyl (Surr)	172	8.234	8.234	0.000	98	473627	5.25	
$ 11 2,4,6-Tribromophenol	330	9.499	9.499	0.000	83	40443	4.50	
$ 12 Terphenyl-d14	244	11.408	11.408	0.000	99	859250	8.99	
75 Naphthalene	128		7.349				ND	
109 Acenaphthylene	152		8.715				ND	
112 Acenaphthene	153		8.859				ND	
126 Fluorene	166		9.292				ND	
148 Phenanthrene	178		10.114				ND	
149 Anthracene	178		10.157				ND	
159 Fluoranthene	202	11.124	11.124	0.000	96	7810	0.0518	
161 Pyrene	202	11.321	11.321	0.000	93	8953	0.0598	
177 Benzo[a]anthracene	228		12.336				ND	
178 Chrysene	228	12.369	12.369	0.000	95	20057	0.1334	
182 Benzo[b]fluoranthene	252	13.471	13.475	-0.004	49	11777	0.0807	
183 Benzo[k]fluoranthene	252		13.509				ND	
184 Benzo[a]pyrene	252	13.908	13.908	0.000	69	10121	0.0729	
188 Indeno[1,2,3-cd]pyrene	276	15.740	15.755	-0.015	94	23662	0.1639	M
189 Dibenz(a,h)anthracene	278		15.760				ND	
190 Benzo[g,h,i]perylene	276	16.284	16.303	-0.019	88	28308	0.2360	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

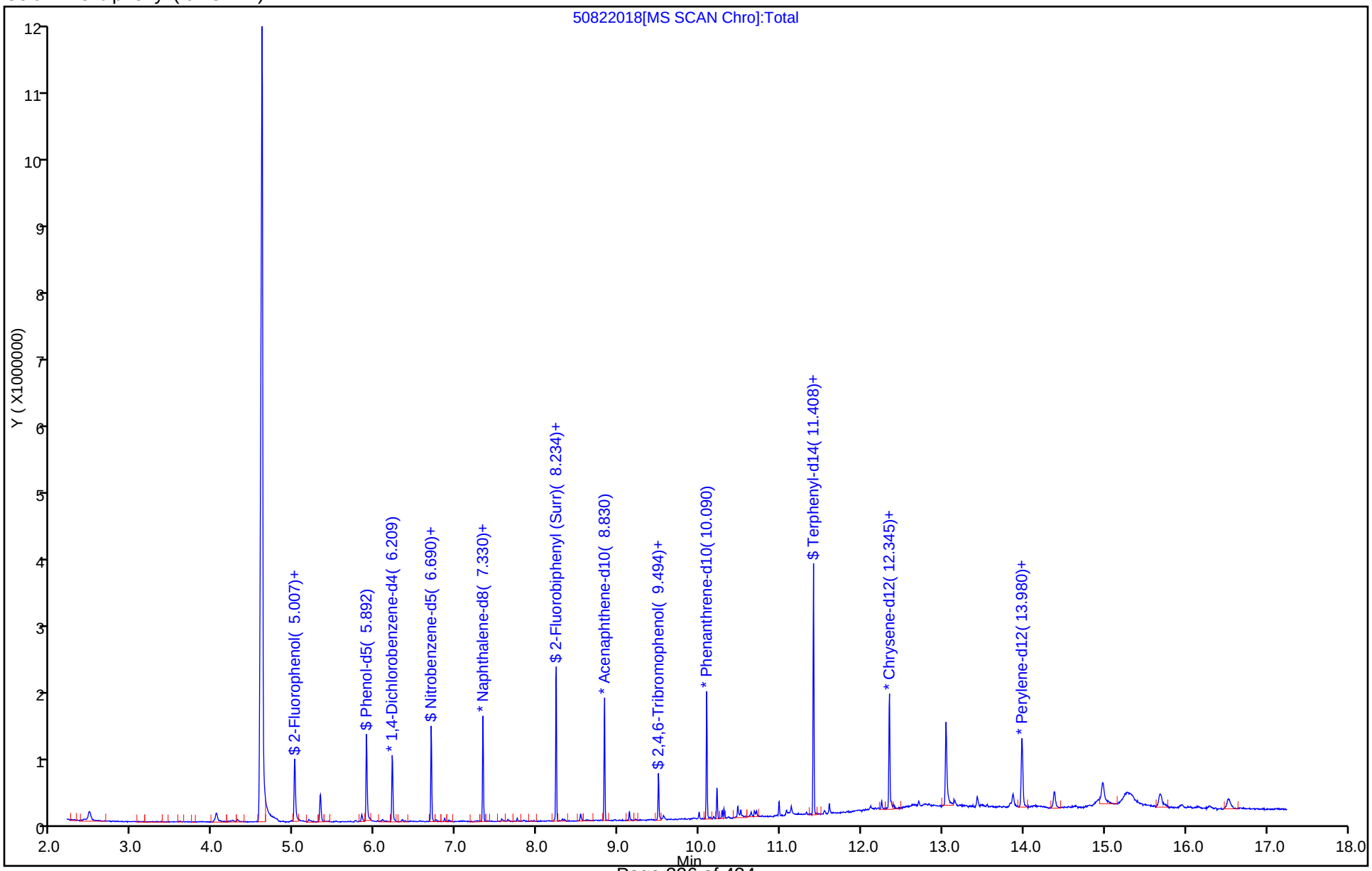
Report Date: 24-Aug-2015 09:26:58 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4	Worklist Smp#:	18
Client ID:	D-VB-F-14-2				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



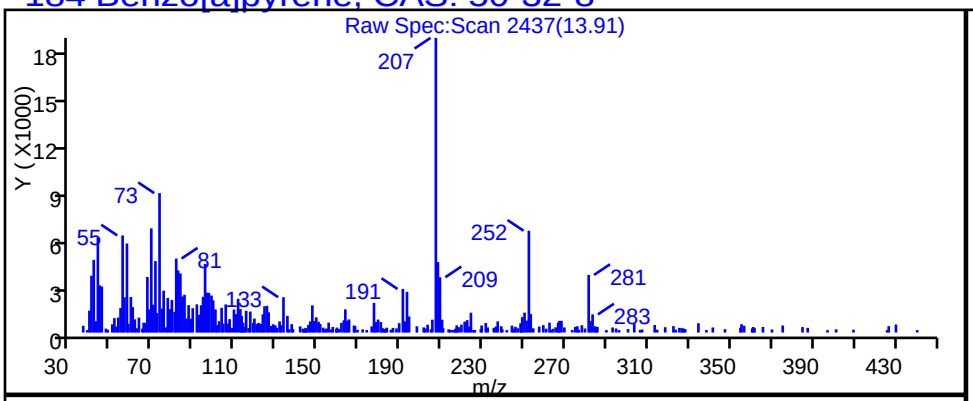
Report Date: 24-Aug-2015 09:26:59 Chrom Revision: 2.2 23-Jul-2015 08:26:08

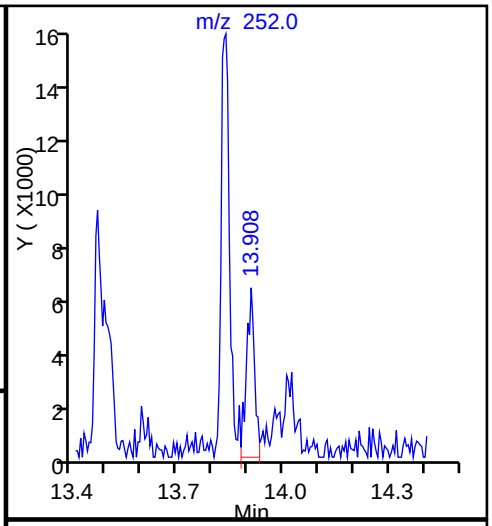
TestAmerica Canton

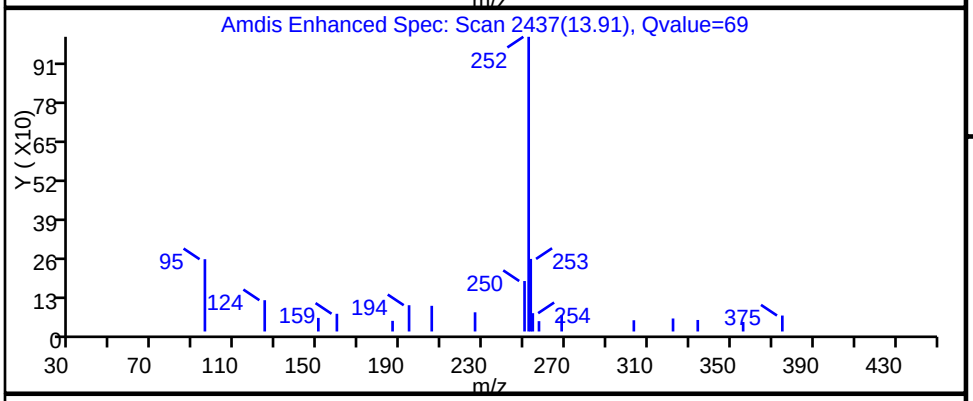
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

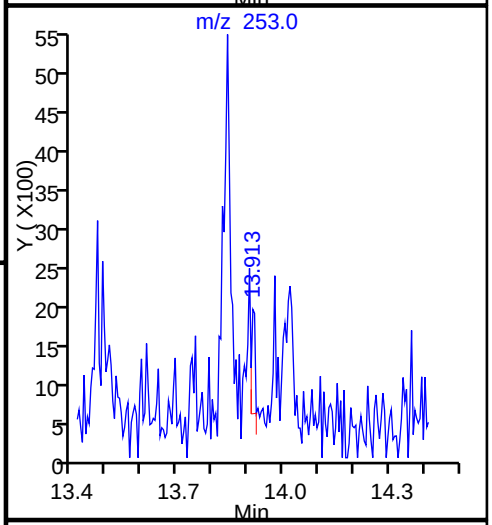
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

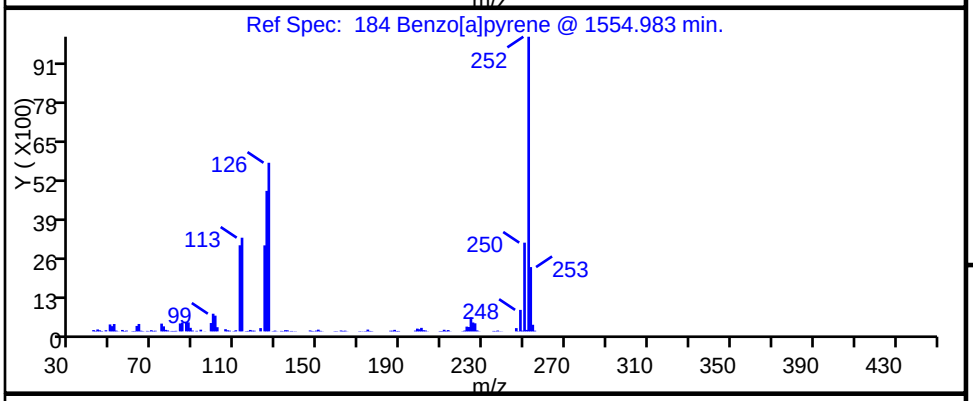
184 Benzo[a]pyrene, CAS: 50-32-8

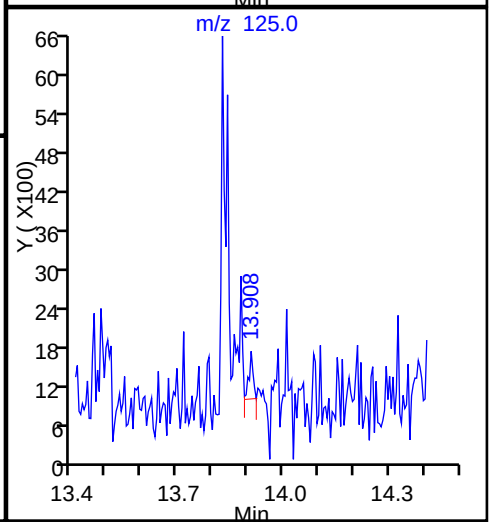


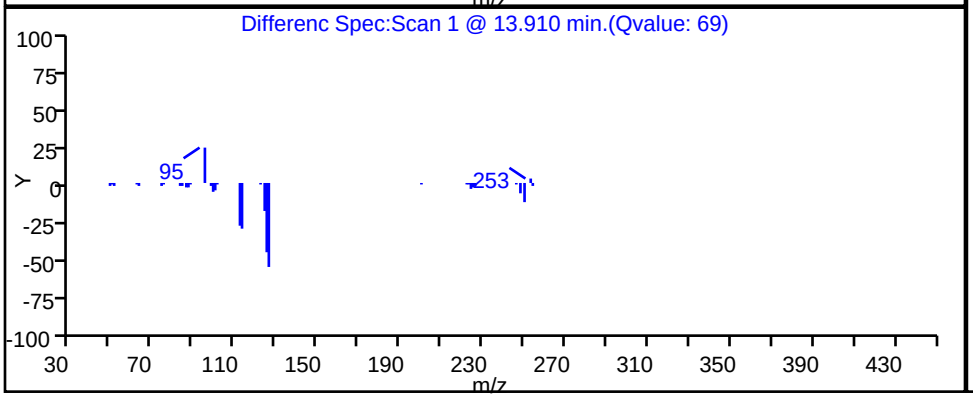












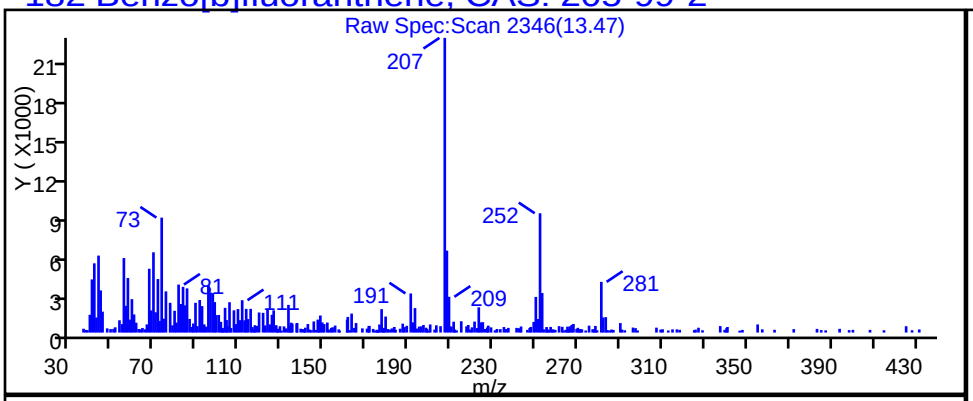
Report Date: 24-Aug-2015 09:26:59 Chrom Revision: 2.2 23-Jul-2015 08:26:08

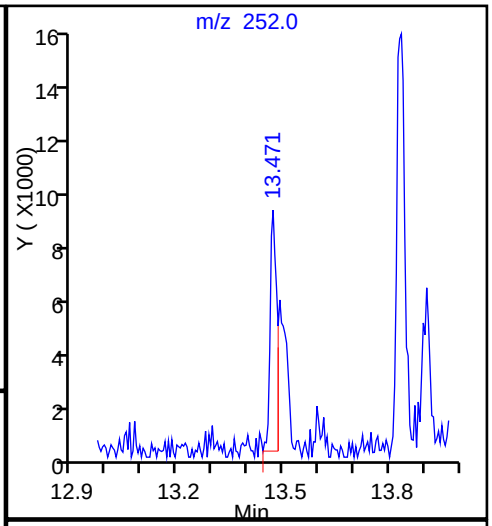
TestAmerica Canton

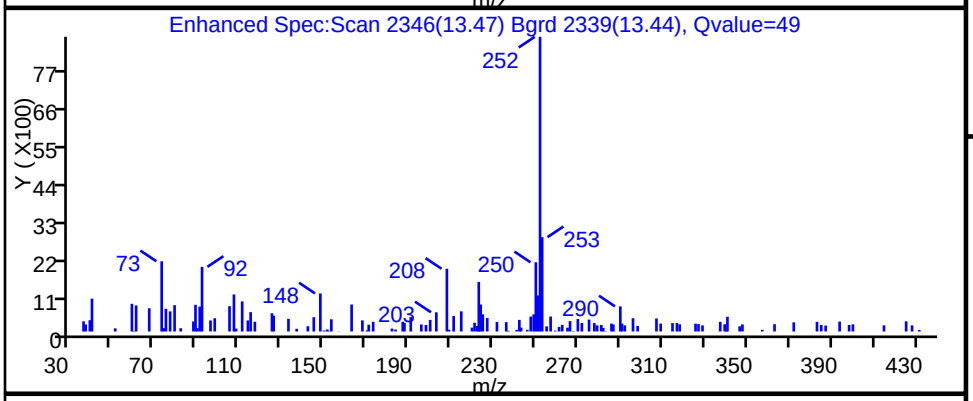
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

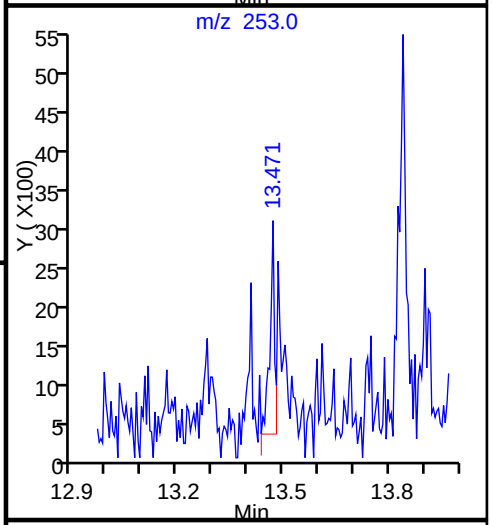
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

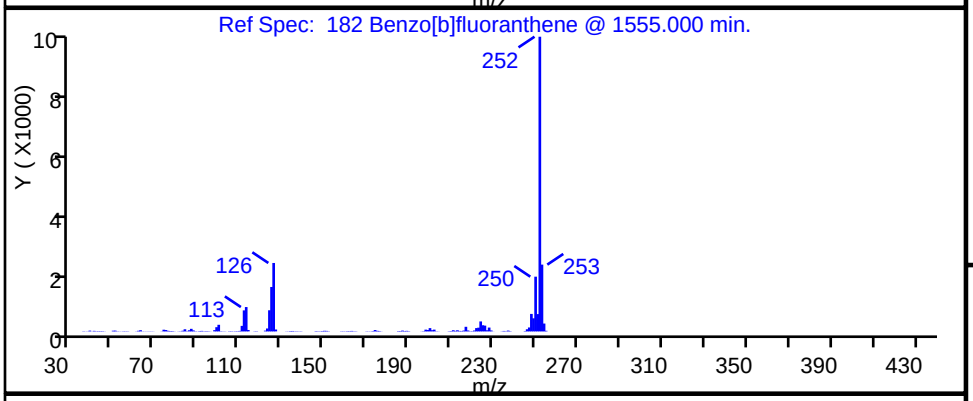
182 Benzo[b]fluoranthene, CAS: 205-99-2

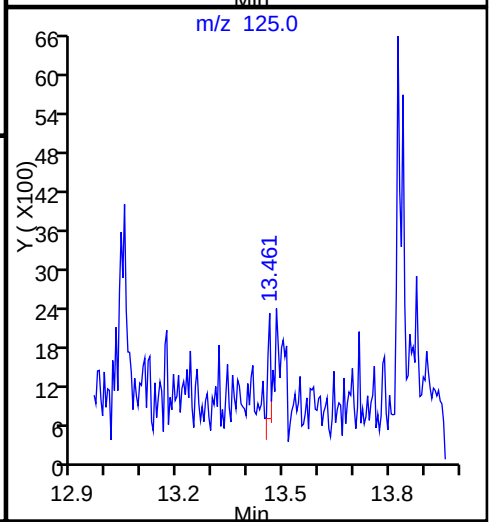


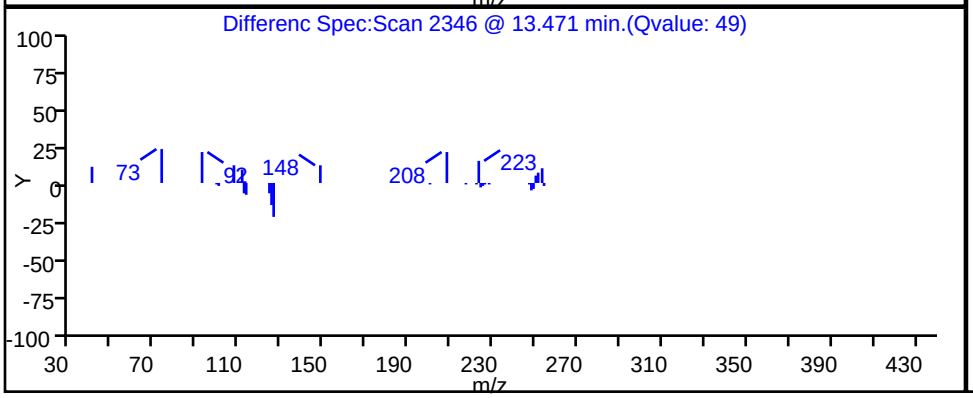












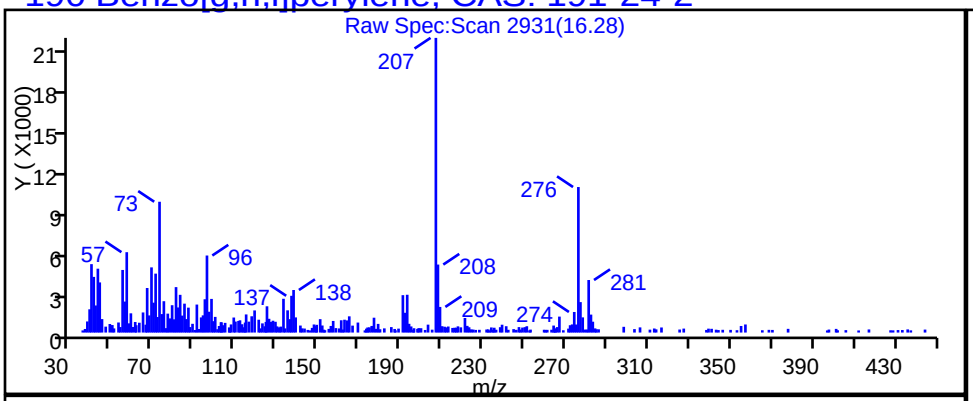
Report Date: 24-Aug-2015 09:26:59 Chrom Revision: 2.2 23-Jul-2015 08:26:08

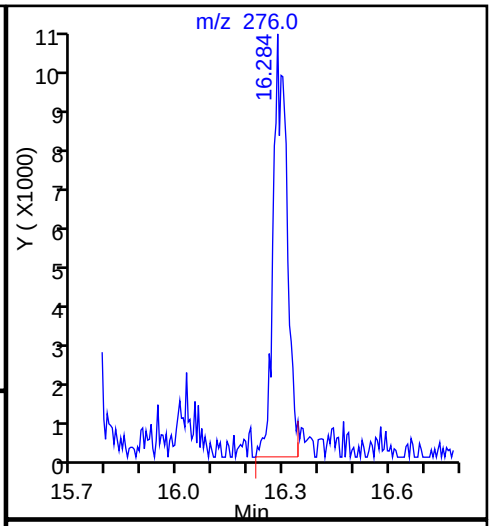
TestAmerica Canton

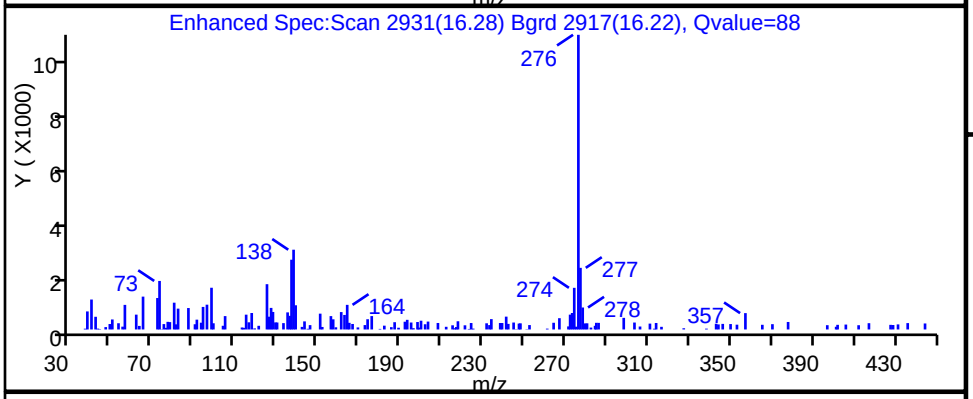
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

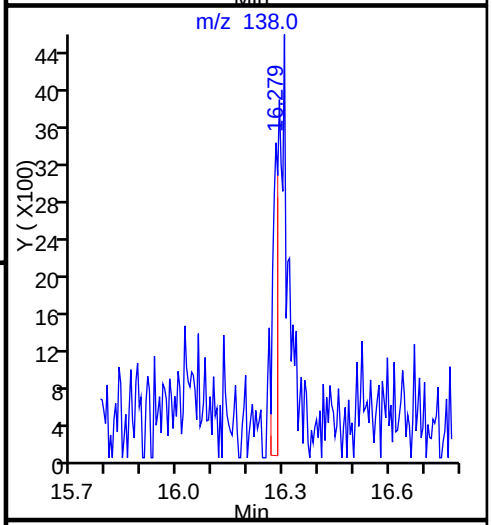
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

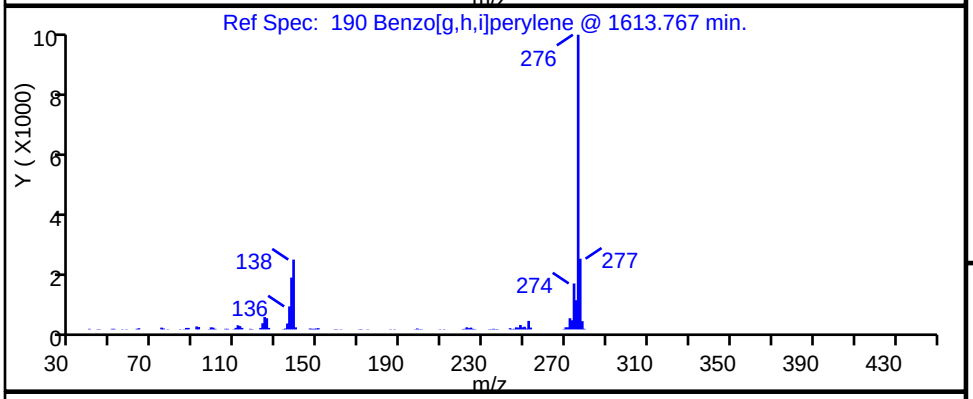
190 Benzo[g,h,i]perylene, CAS: 191-24-2

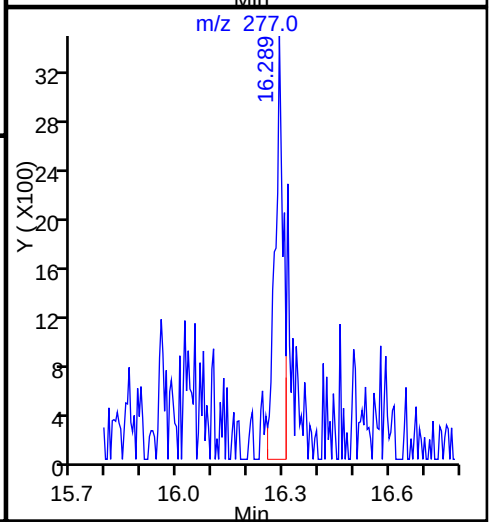


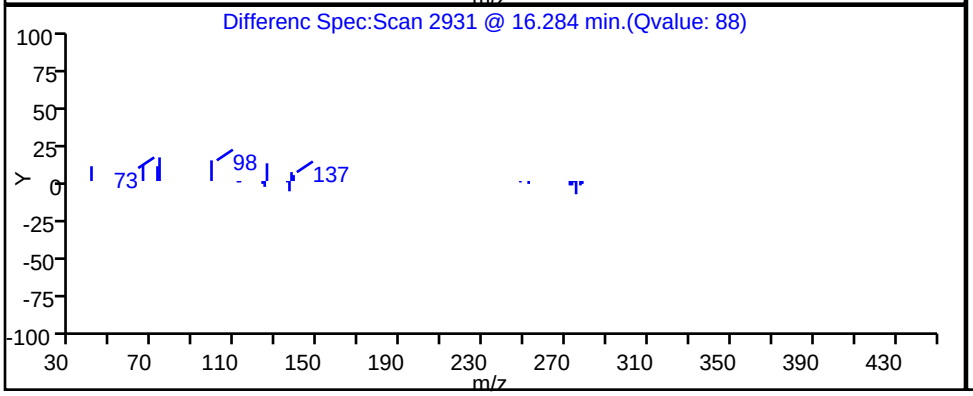












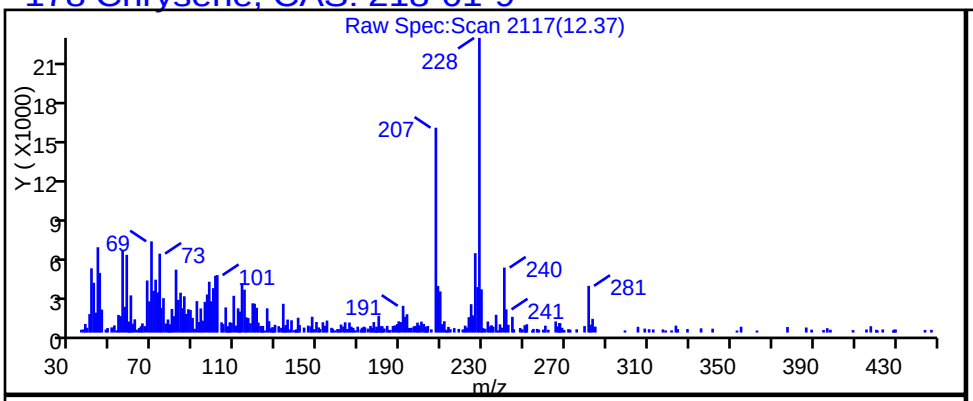
Report Date: 24-Aug-2015 09:26:59 Chrom Revision: 2.2 23-Jul-2015 08:26:08

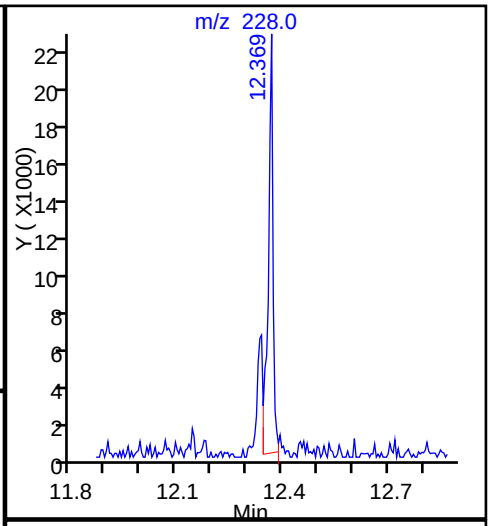
TestAmerica Canton

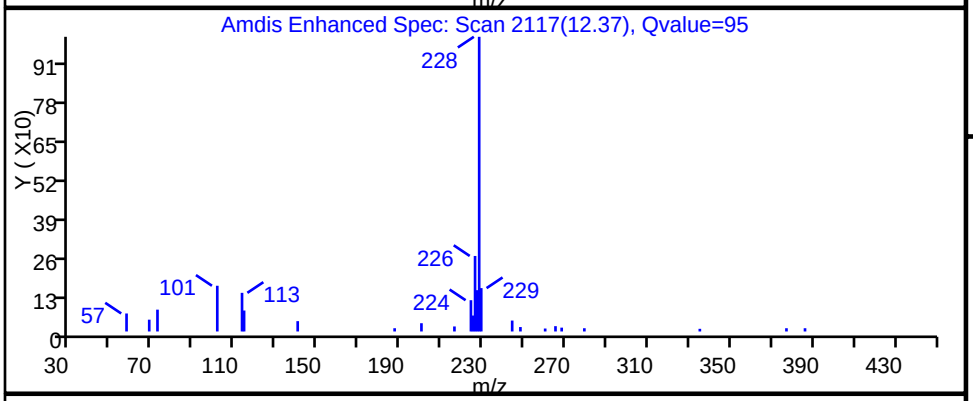
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

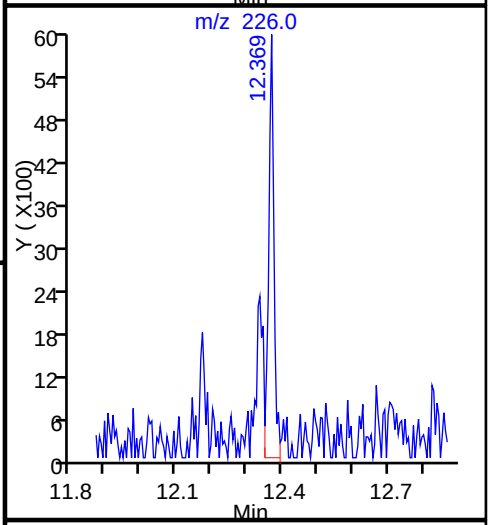
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

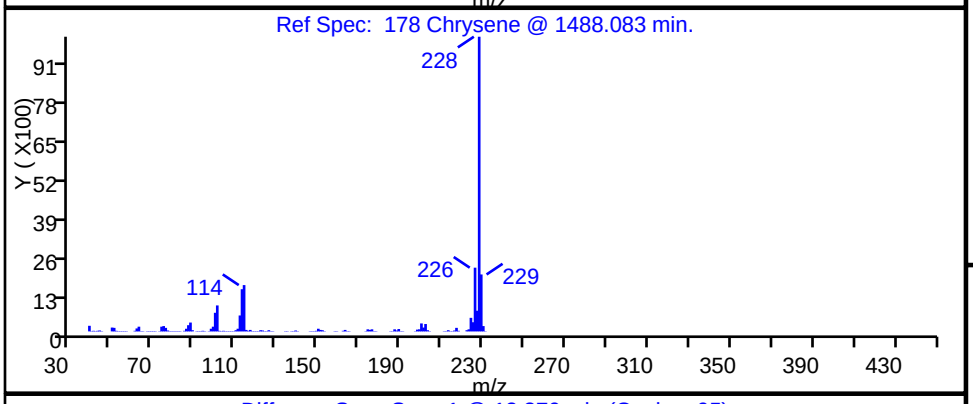
178 Chrysene, CAS: 218-01-9

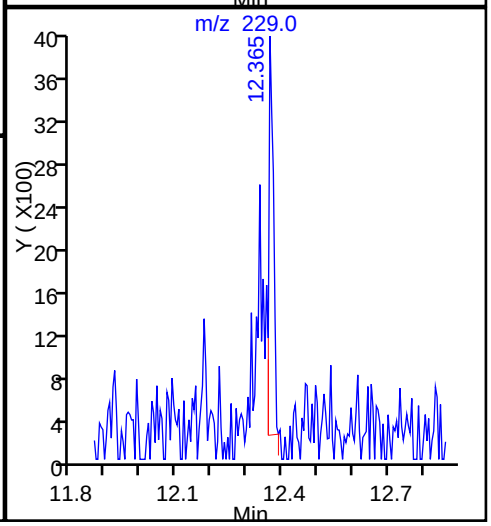


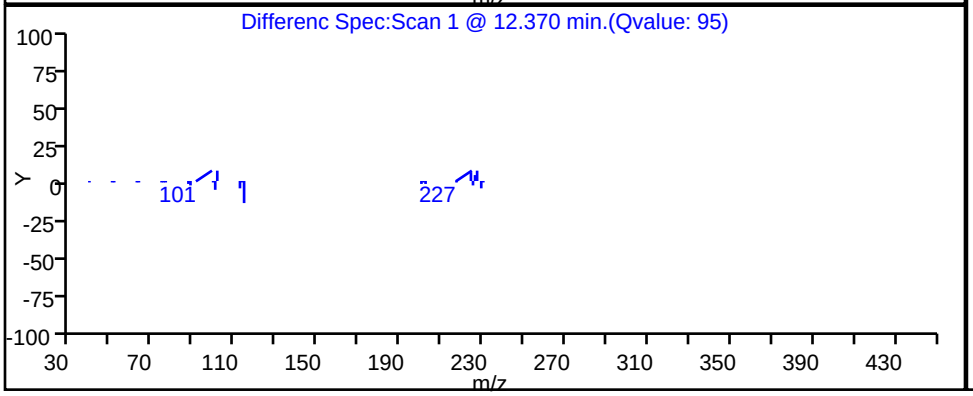












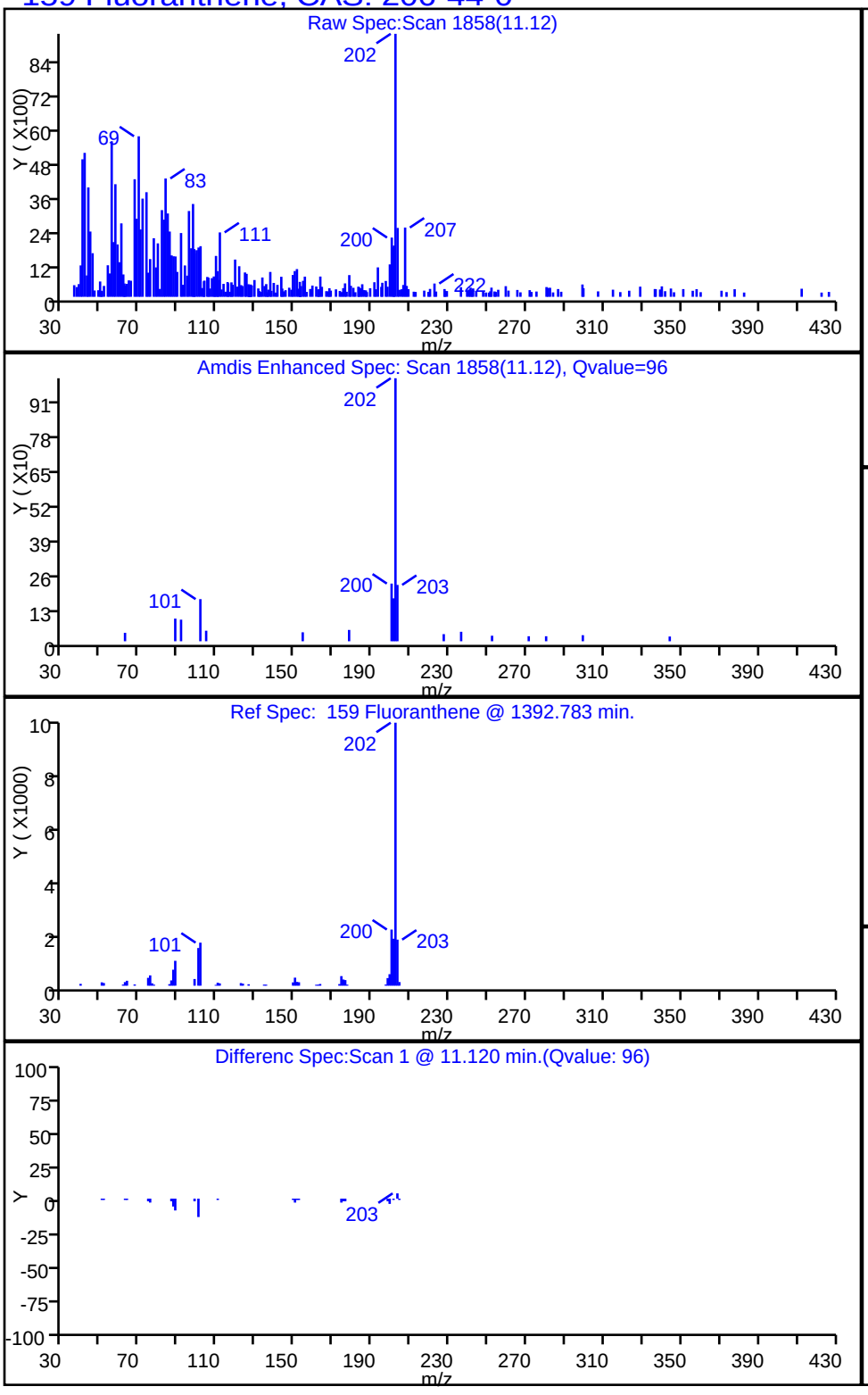
Report Date: 24-Aug-2015 09:26:58 Chrom Revision: 2.2 23-Jul-2015 08:26:08

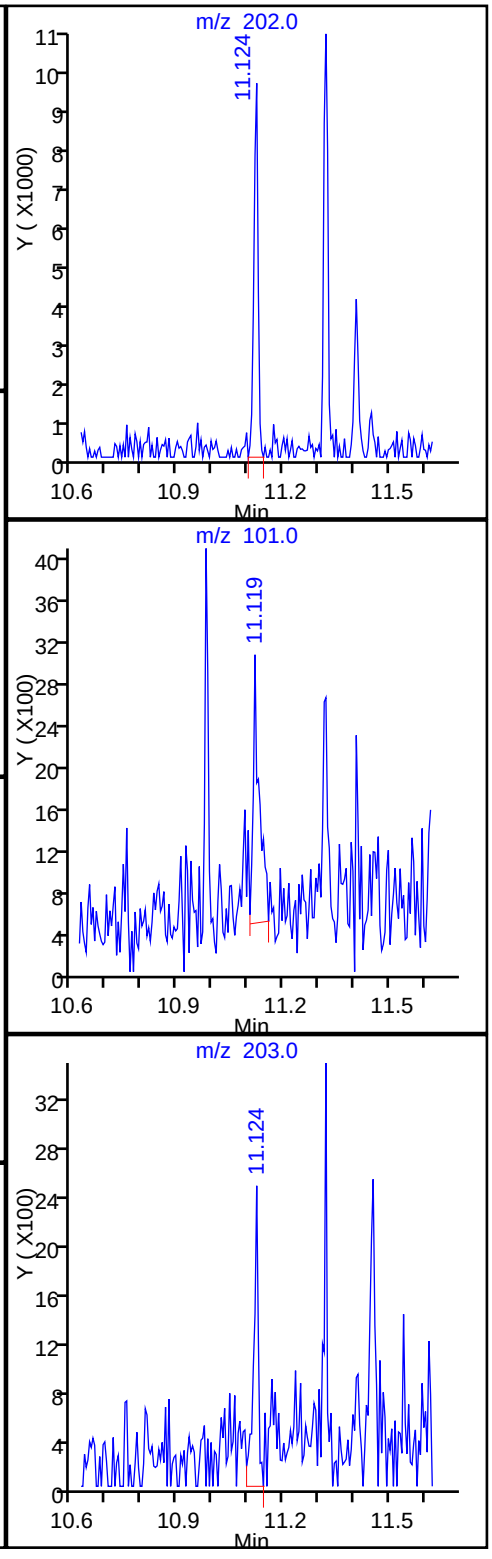
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

159 Fluoranthene, CAS: 206-44-0





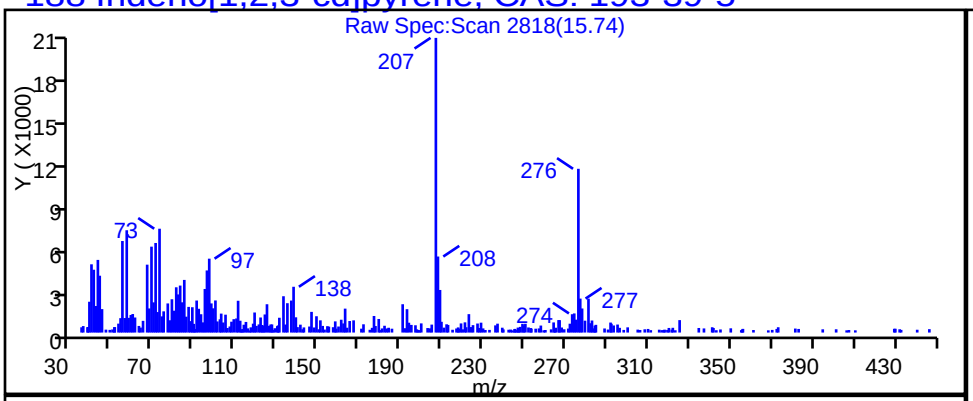
Report Date: 24-Aug-2015 09:26:59 Chrom Revision: 2.2 23-Jul-2015 08:26:08

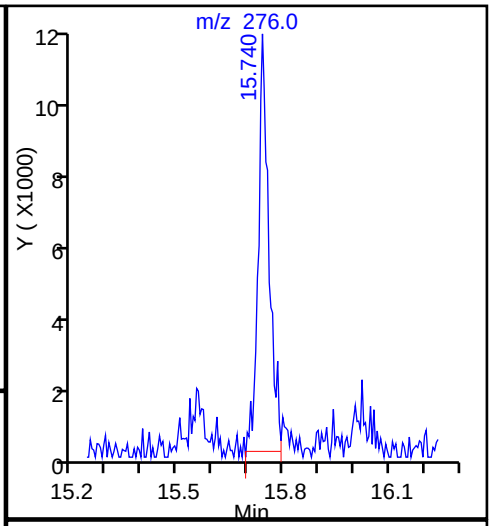
TestAmerica Canton

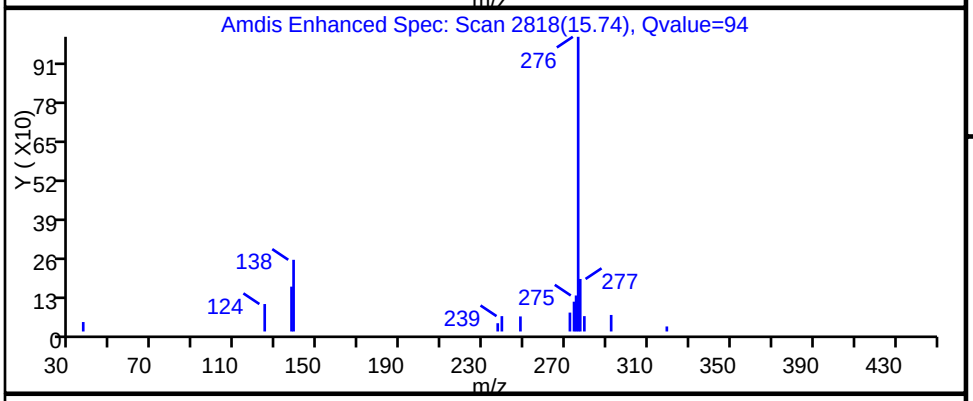
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

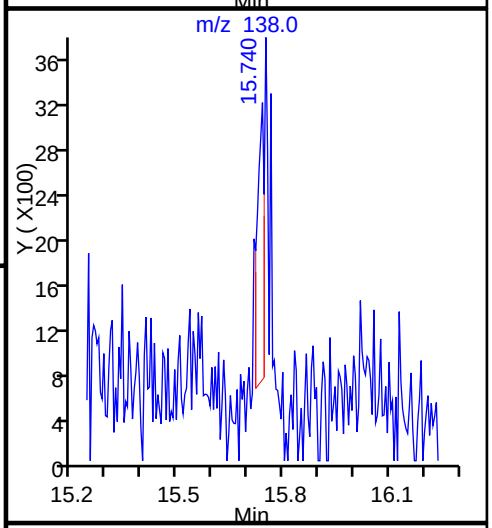
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

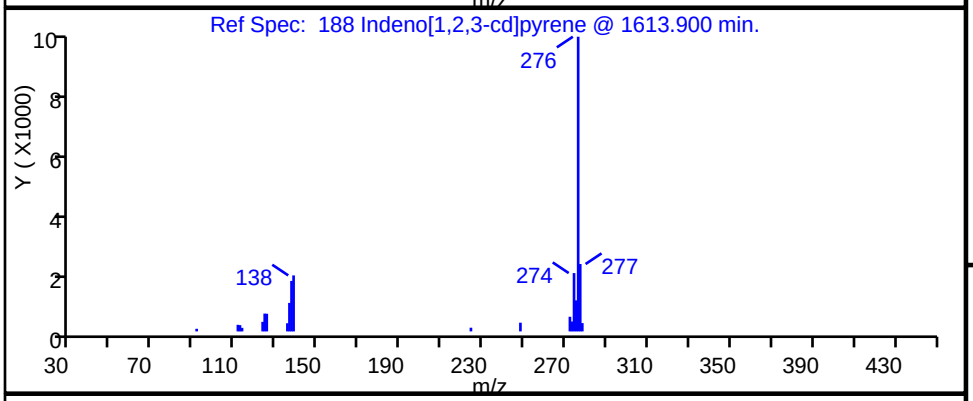
188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

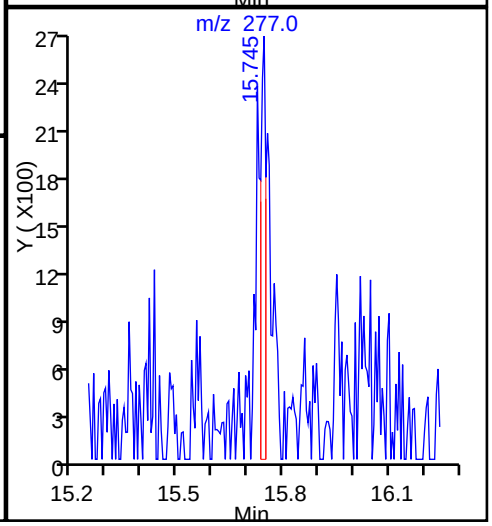


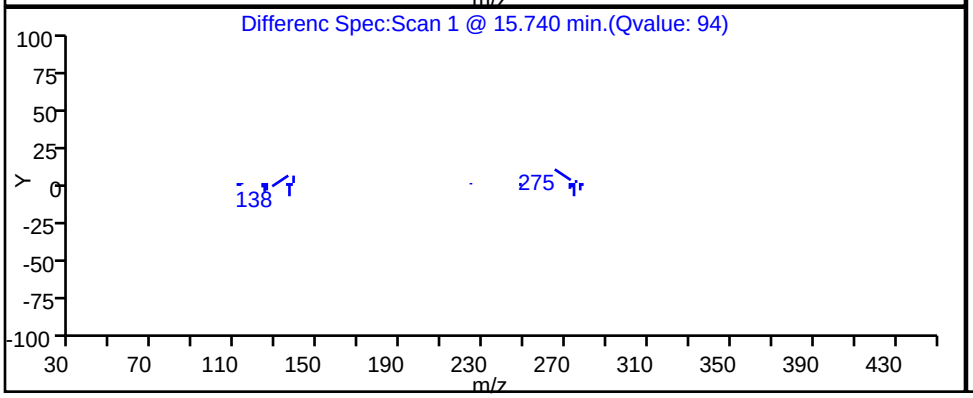












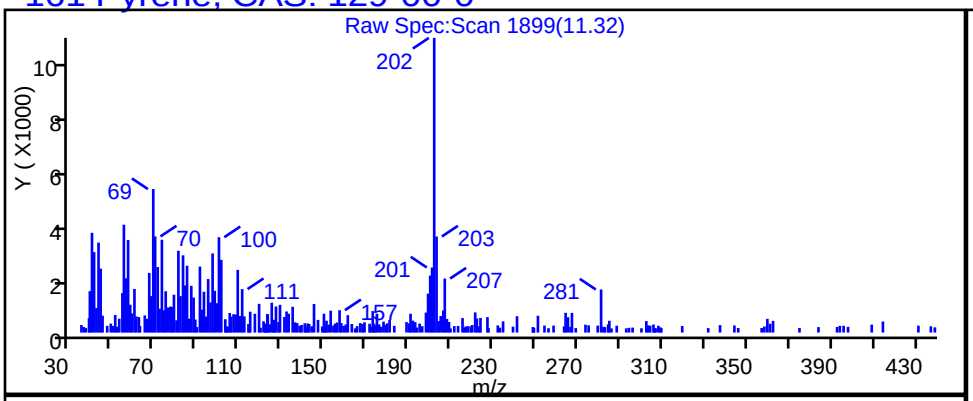
Report Date: 24-Aug-2015 09:26:59 Chrom Revision: 2.2 23-Jul-2015 08:26:08

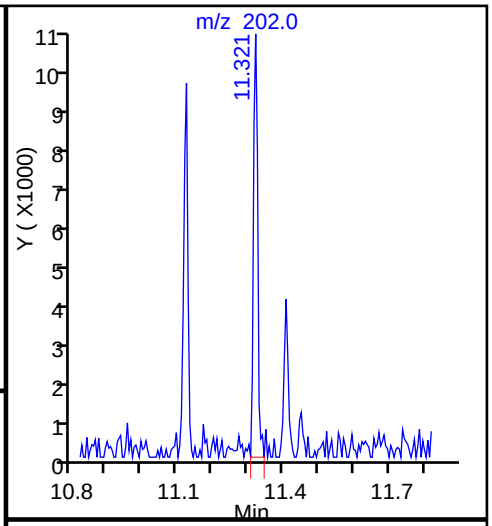
TestAmerica Canton

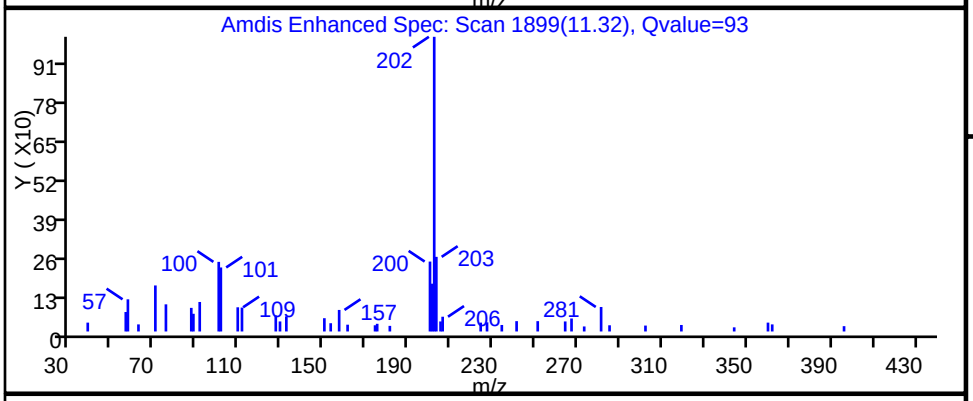
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D

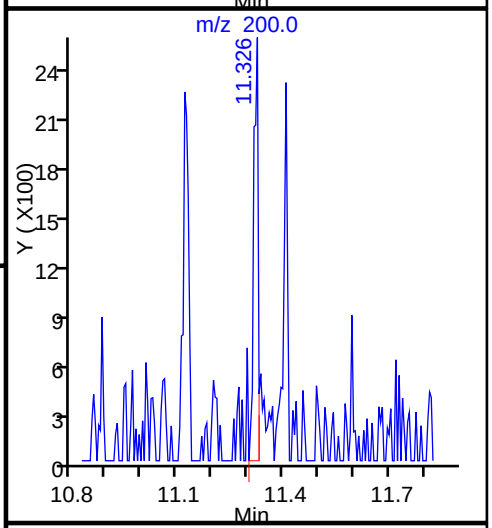
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

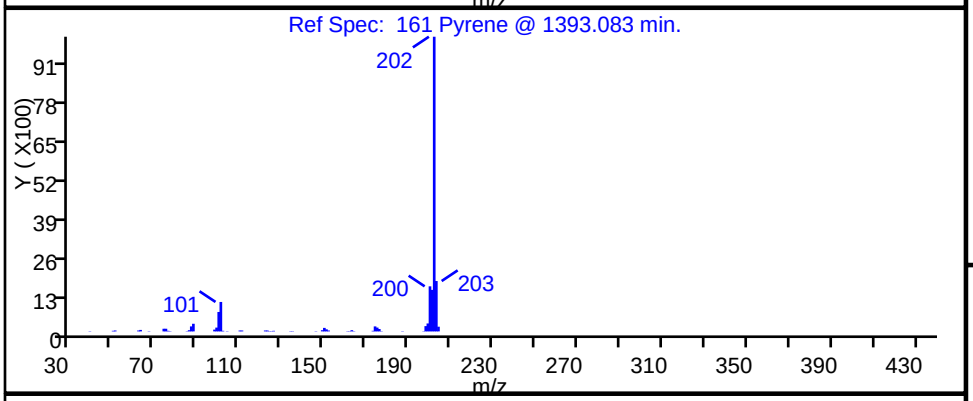
161 Pyrene, CAS: 129-00-0

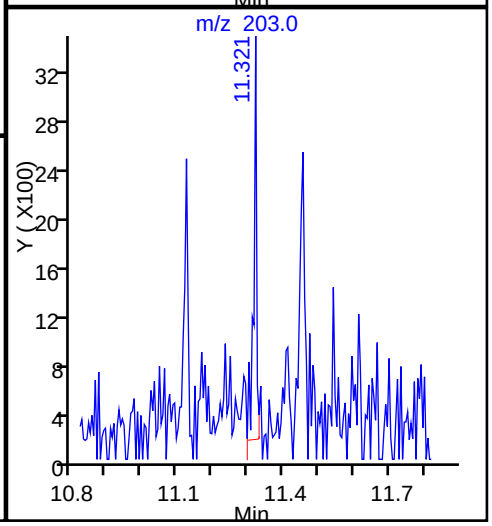


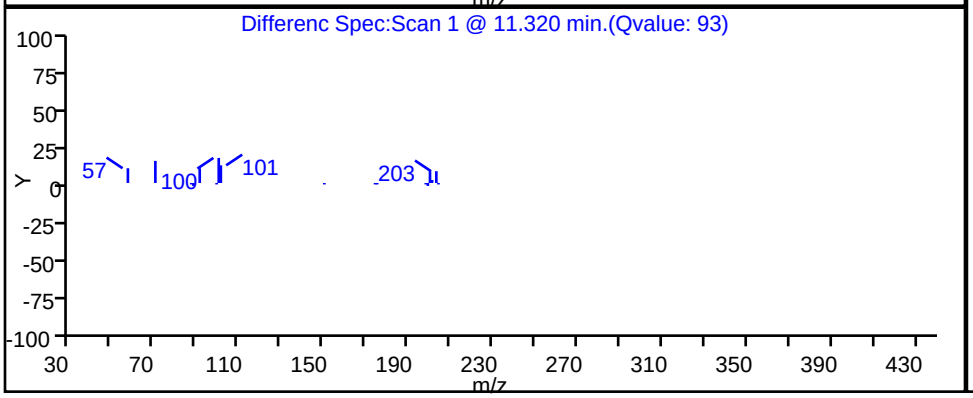












Manual Integration/User Assign Peak Report

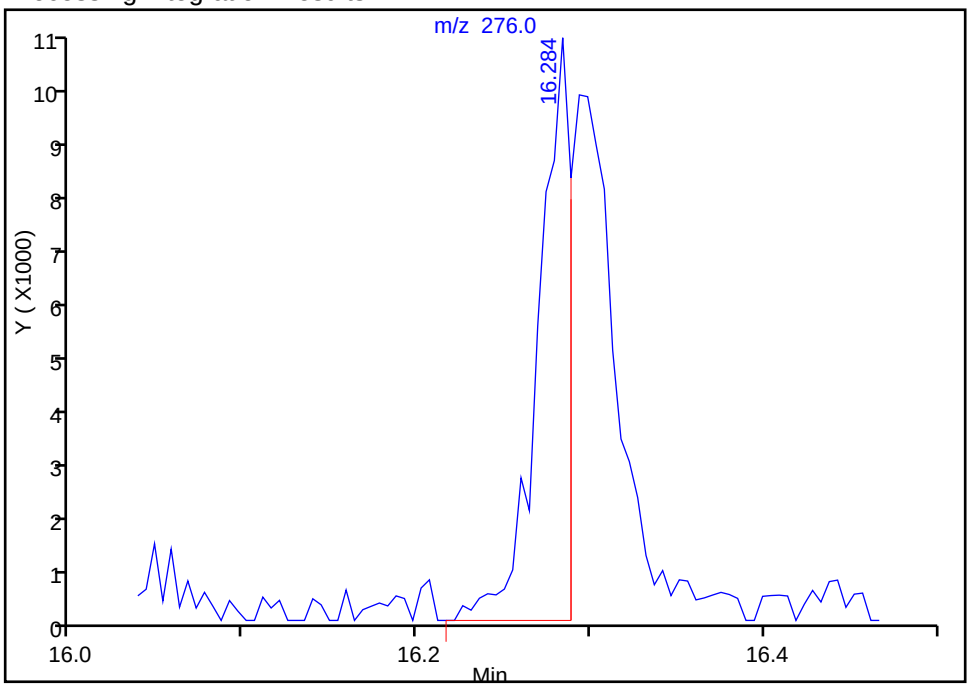
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D				
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

190 Benzo[g,h,i]perylene, CAS: 191-24-2

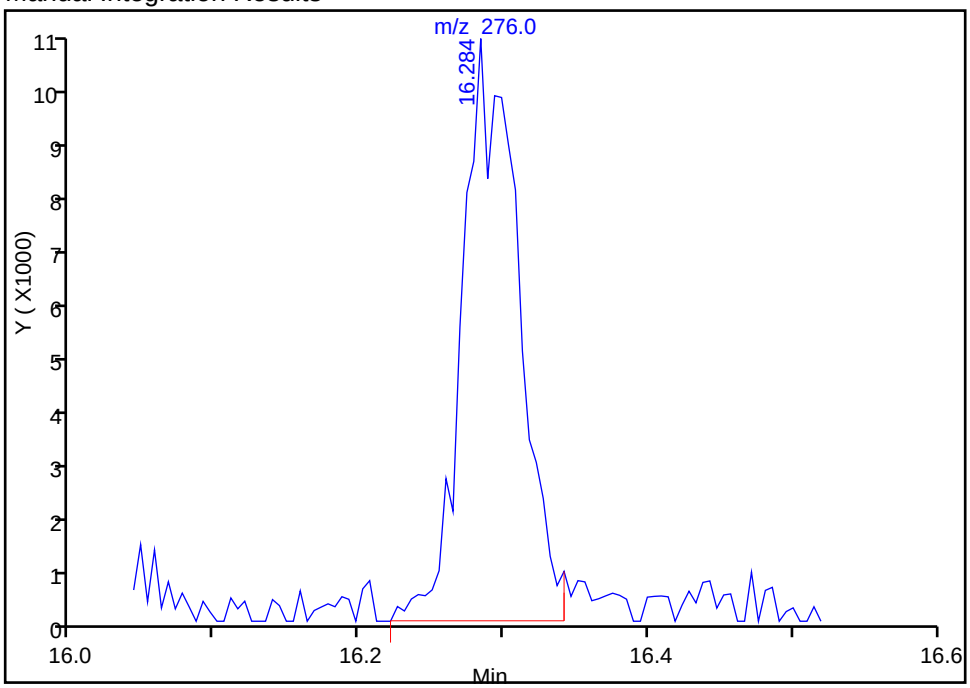
Processing Integration Results

RT: 16.28
Area: 13670
Amount: 0.113964
Amount Units: ng/ul



Manual Integration Results

RT: 16.28
Area: 28308
Amount: 0.235998
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:44:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

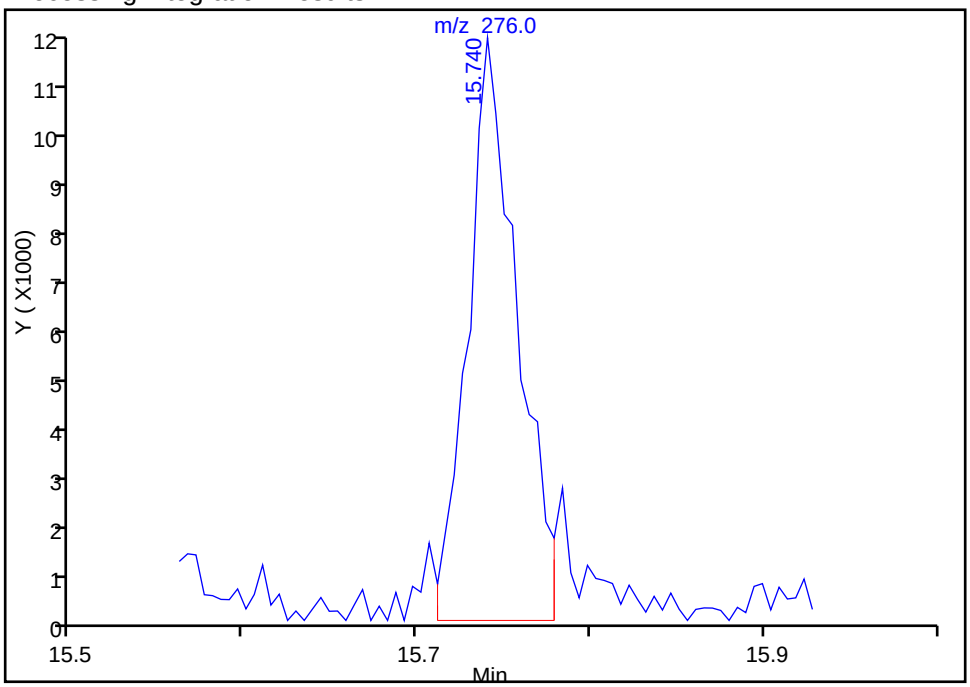
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822018.D				
Injection Date:	22-Aug-2015 17:01:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-4-A	Lab Sample ID:	240-54467-4		
Client ID:	D-VB-F-14-2				
Operator ID:	001710	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

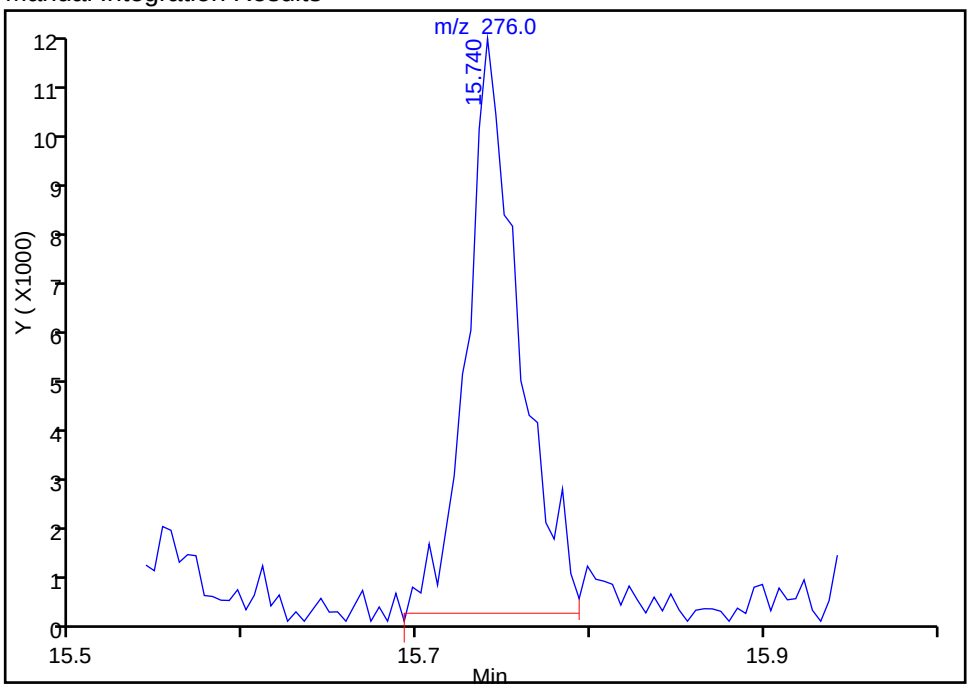
Processing Integration Results

RT: 15.74
Area: 22722
Amount: 0.157370
Amount Units: ng/ul



Manual Integration Results

RT: 15.74
Area: 23662
Amount: 0.163880
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:44:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-15-2 | Lab Sample ID: 240-54467-5

Matrix: Solid | Lab File ID: 50822020.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:37

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.68(g) | Date Analyzed: 08/22/2015 17:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.1	J	7.7	0.87
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	15		7.7	0.90
56-55-3	Benzo[a]anthracene	48		7.7	0.72
50-32-8	Benzo[a]pyrene	50		7.7	0.74
205-99-2	Benzo[b]fluoranthene	65		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	43		7.7	0.40
207-08-9	Benzo[k]fluoranthene	29		7.7	0.78
218-01-9	Chrysene	49		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	10		7.7	0.76
206-44-0	Fluoranthene	86		7.7	0.63
86-73-7	Fluorene	7.8		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	35		7.7	0.40
91-20-3	Naphthalene	7.3	J	7.7	0.94
85-01-8	Phenanthrene	45		7.7	0.84
129-00-0	Pyrene	75		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	53		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D
Lims ID: 240-54467-B-5-A Lab Sample ID: 240-54467-5
Client ID: D-VB-F-15-2
Sample Type: Client
Inject. Date: 22-Aug-2015 17:51:30 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-020
Misc. Info.: 240-54467-B-5-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 08:48:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.209	6.214	-0.005	93	131739	4.00	
* 2 Naphthalene-d8	136	7.330	7.330	0.000	98	502009	4.00	
* 3 Acenaphthene-d10	164	8.830	8.830	0.000	91	304478	4.00	
* 4 Phenanthrene-d10	188	10.090	10.090	0.000	96	501105	4.00	
* 5 Chrysene-d12	240	12.345	12.345	0.000	97	563573	4.00	
* 6 Perylene-d12	264	13.985	13.985	0.000	98	535663	4.00	
$ 7 2-Fluorophenol	112	5.012	4.983	0.029	95	414536	7.19	
$ 8 Phenol-d5	99	5.892	5.882	0.010	97	646241	7.93	
$ 9 Nitrobenzene-d5	82	6.690	6.690	0.000	83	612586	6.30	
$ 10 2-Fluorobiphenyl (Surr)	172	8.234	8.234	0.000	98	700191	7.04	
$ 11 2,4,6-Tribromophenol	330	9.498	9.499	-0.001	82	52757	5.33	
$ 12 Terphenyl-d14	244	11.407	11.408	-0.001	99	875381	8.44	
75 Naphthalene	128	7.349	7.349	0.000	97	13746	0.0958	
109 Acenaphthylene	152		8.715				ND	
112 Acenaphthene	153	8.859	8.859	0.000	89	8462	0.0926	
126 Fluorene	166	9.287	9.292	-0.005	93	10694	0.1019	
148 Phenanthrene	178	10.109	10.114	-0.005	98	94114	0.5923	
149 Anthracene	178	10.152	10.157	-0.005	96	30759	0.1947	
159 Fluoranthene	202	11.124	11.124	0.000	100	180304	1.12	
161 Pyrene	202	11.321	11.321	0.000	96	158481	0.9759	
177 Benzo[a]anthracene	228	12.336	12.336	0.000	98	110047	0.6328	
178 Chrysene	228	12.369	12.369	0.000	96	105350	0.6457	
182 Benzo[b]fluoranthene	252	13.475	13.475	0.000	96	135428	0.8532	M
183 Benzo[k]fluoranthene	252	13.499	13.509	-0.010	98	61423	0.3828	M
184 Benzo[a]pyrene	252	13.908	13.908	0.000	82	99231	0.6568	
188 Indeno[1,2,3-cd]pyrene	276	15.745	15.755	-0.010	96	71608	0.4561	
189 Dibenz(a,h)anthracene	278	15.759	15.760	-0.001	0	16150	0.1312	M
190 Benzo[g,h,i]perylene	276	16.293	16.303	-0.010	95	72830	0.5583	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

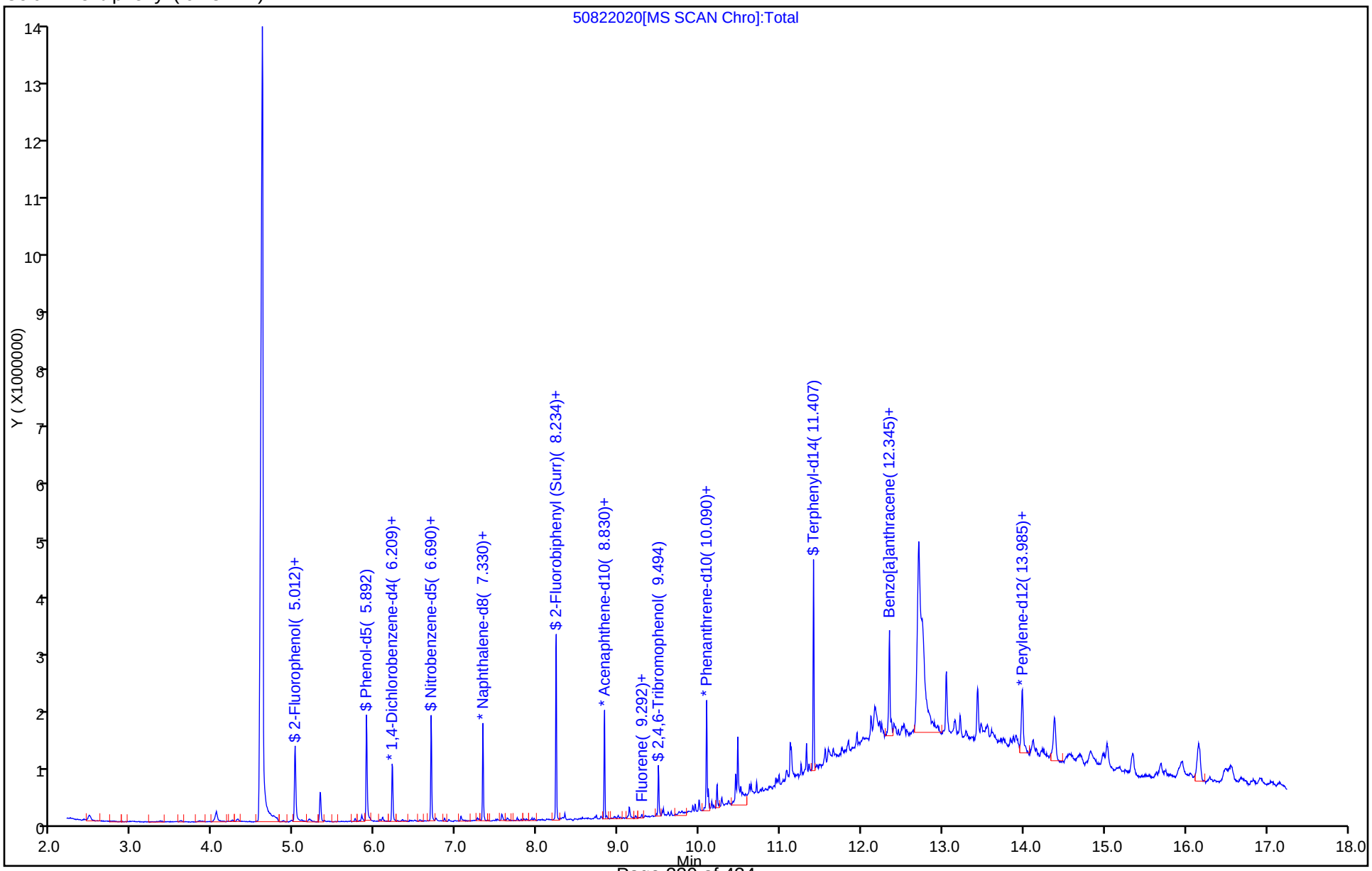
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5	Worklist Smp#:	20
Client ID:	D-VB-F-15-2				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



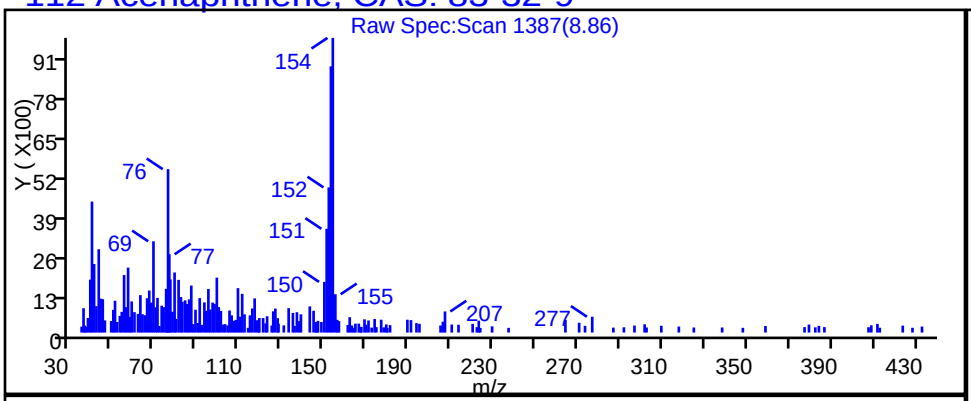
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

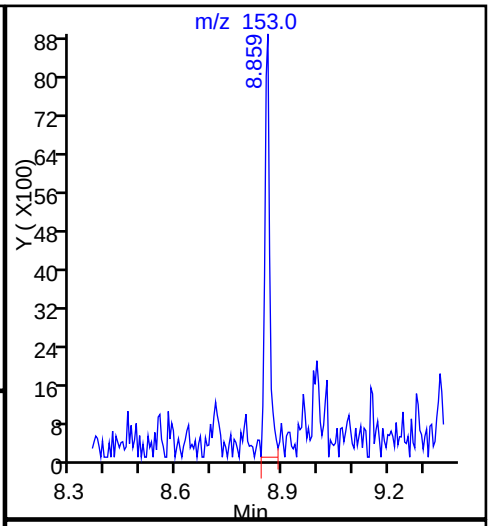
TestAmerica Canton

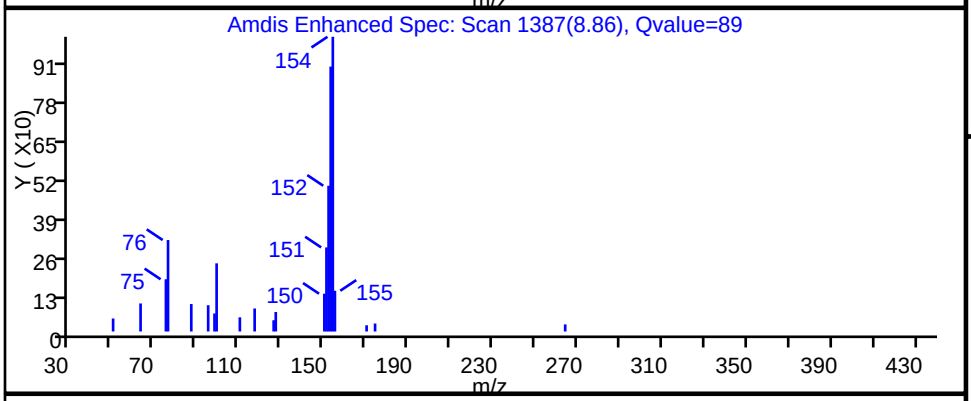
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

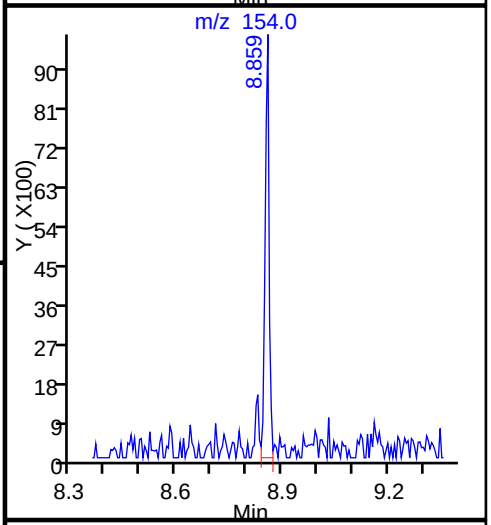
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

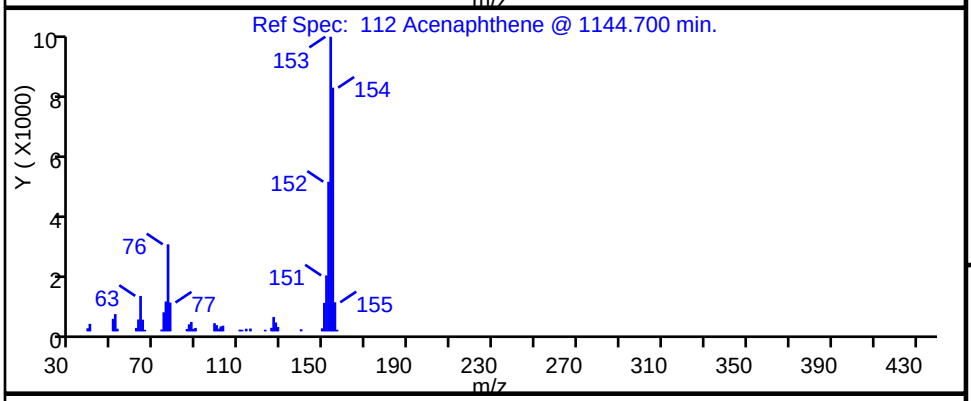
112 Acenaphthene, CAS: 83-32-9

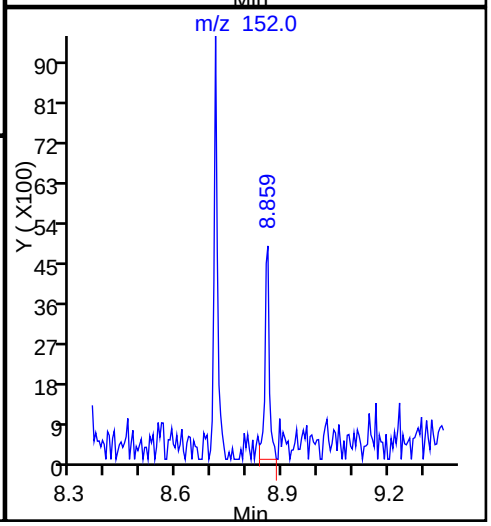


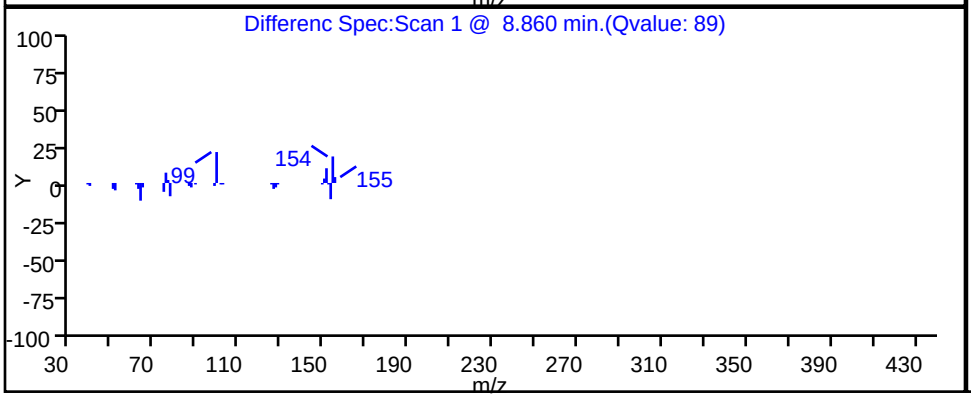












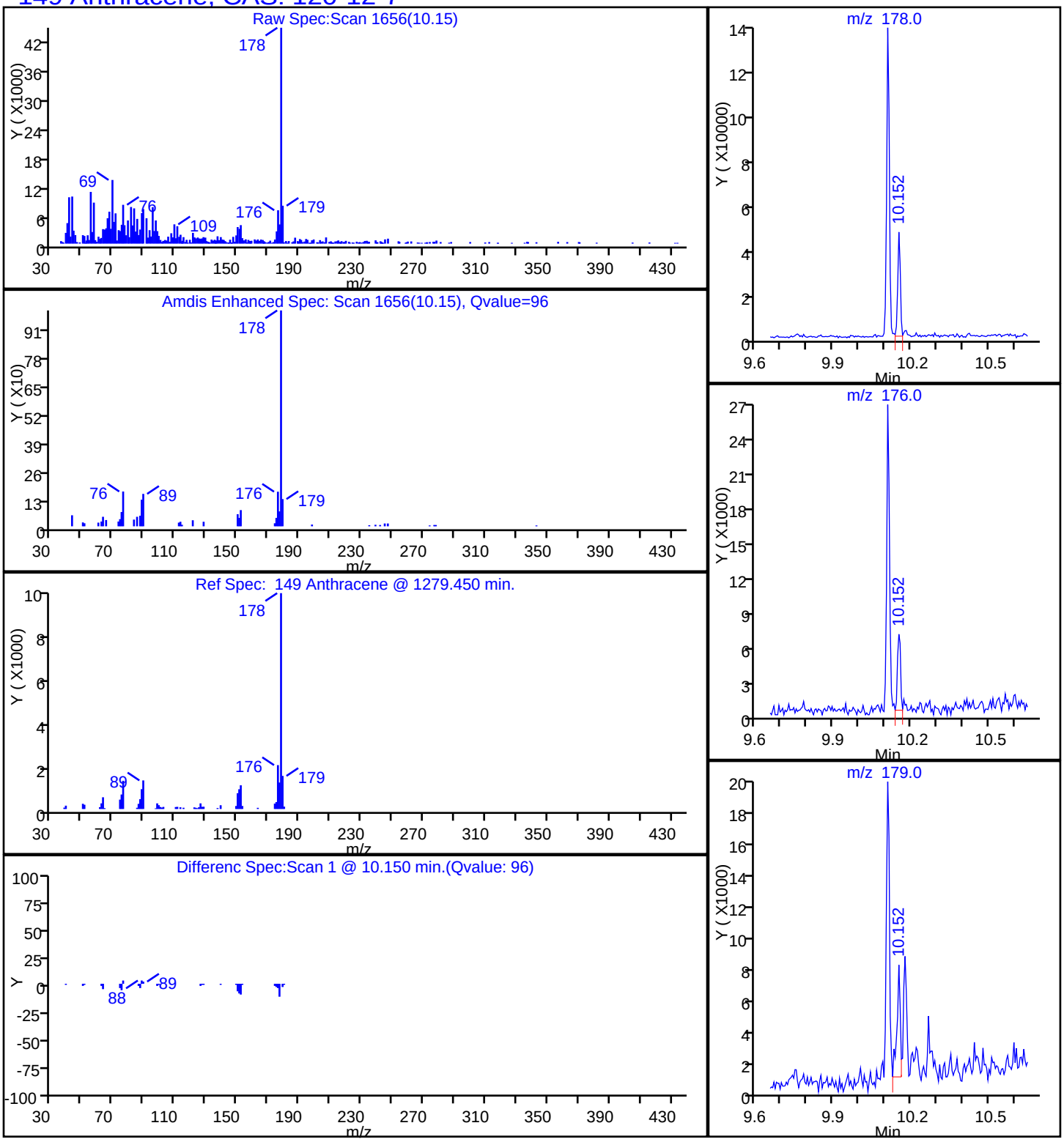
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

149 Anthracene, CAS: 120-12-7



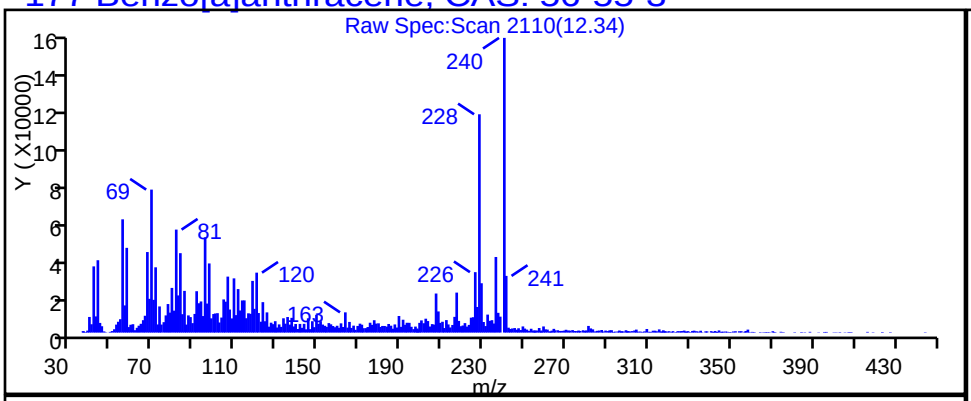
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

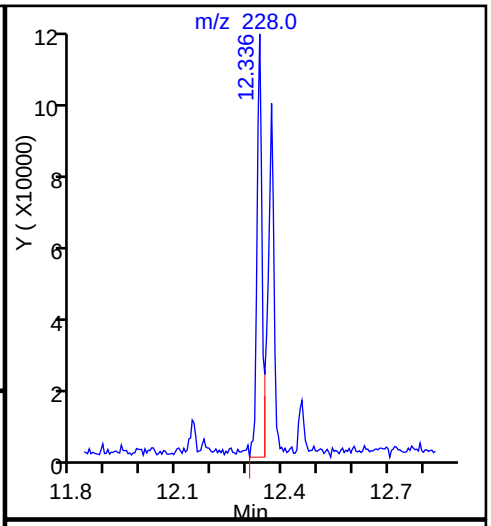
TestAmerica Canton

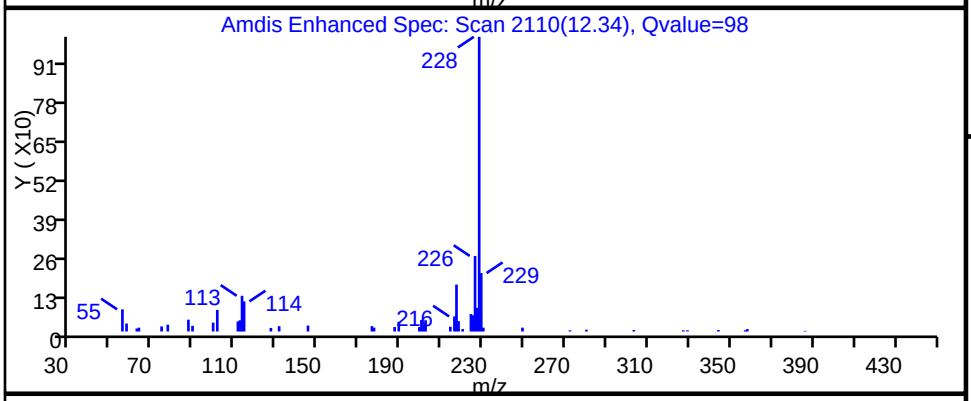
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

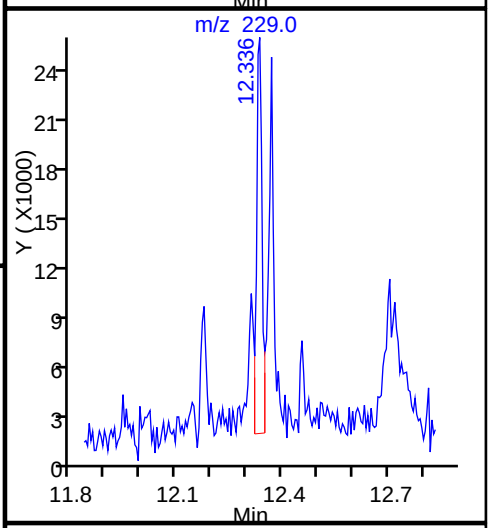
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

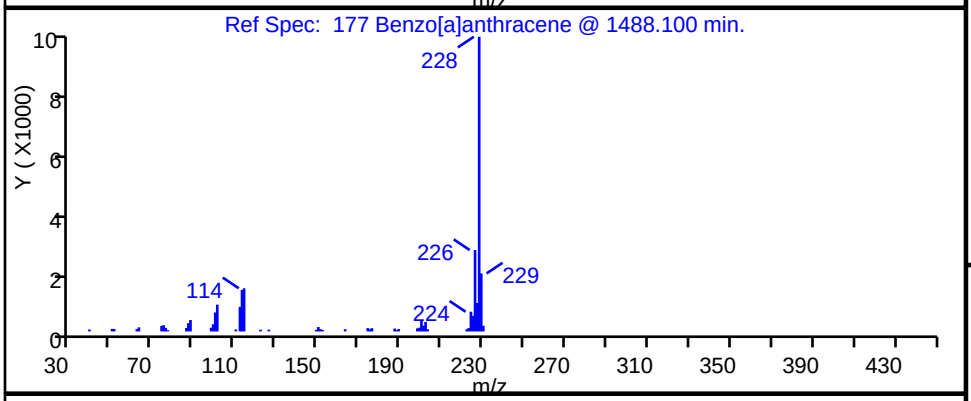
177 Benzo[a]anthracene, CAS: 56-55-3

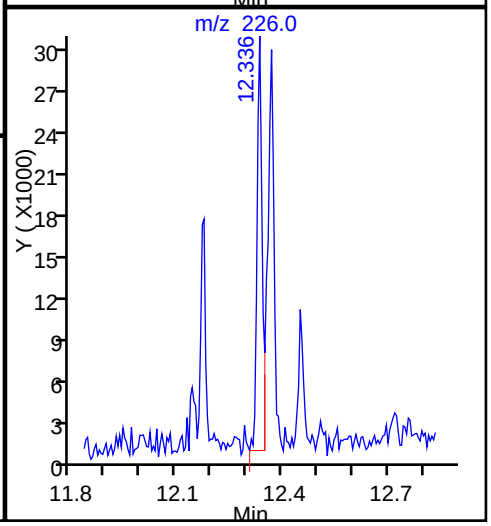


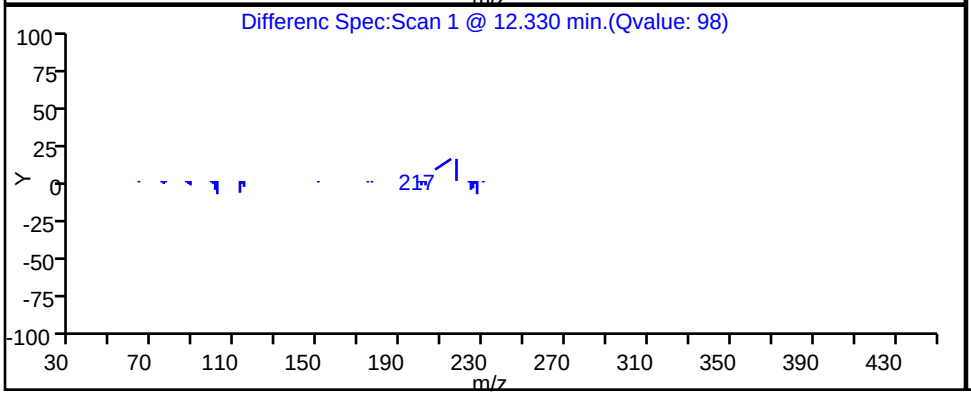












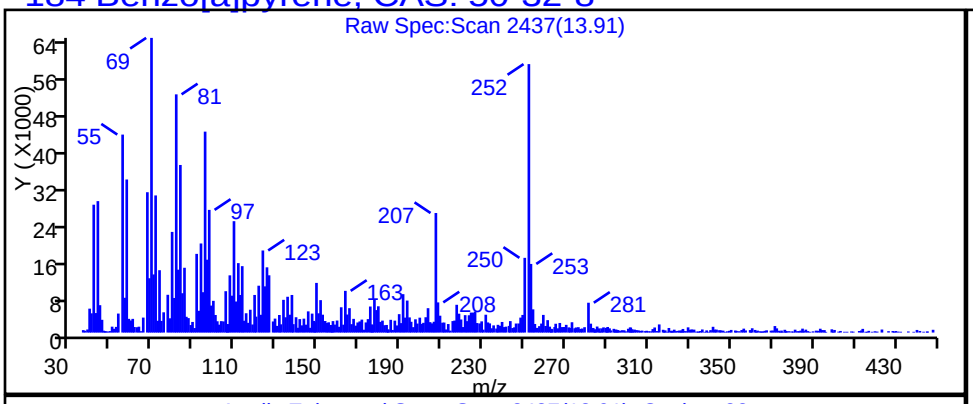
Report Date: 24-Aug-2015 09:27:03 Chrom Revision: 2.2 23-Jul-2015 08:26:08

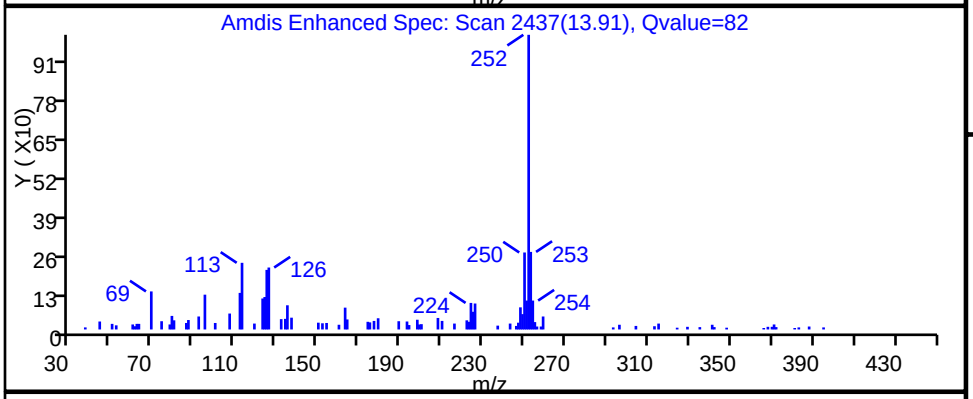
TestAmerica Canton

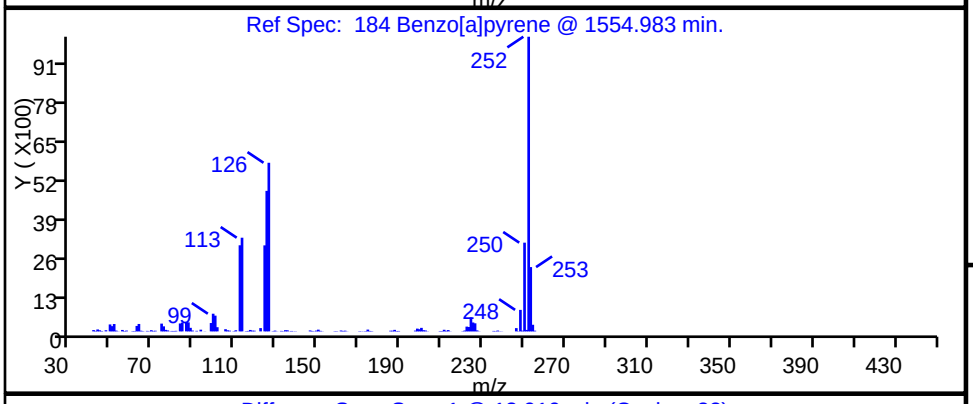
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

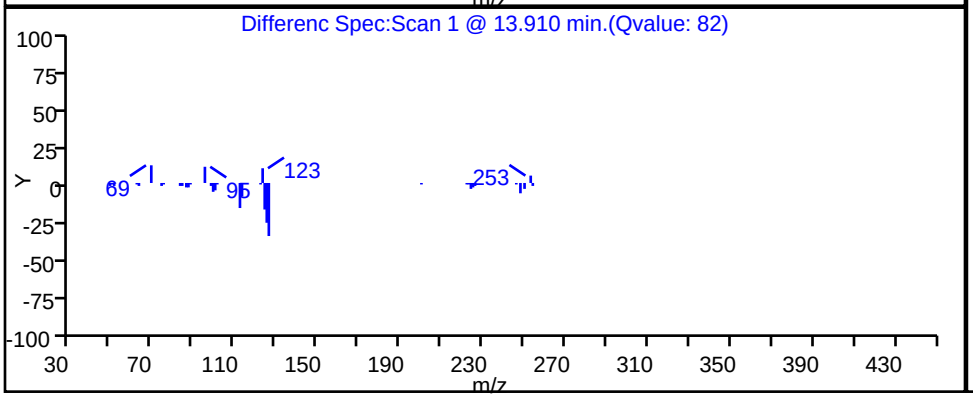
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

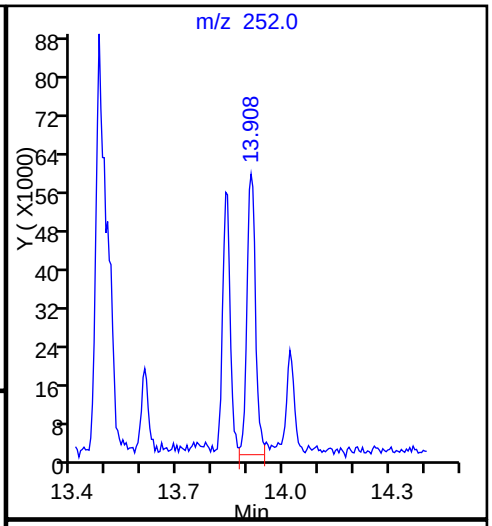
184 Benzo[a]pyrene, CAS: 50-32-8

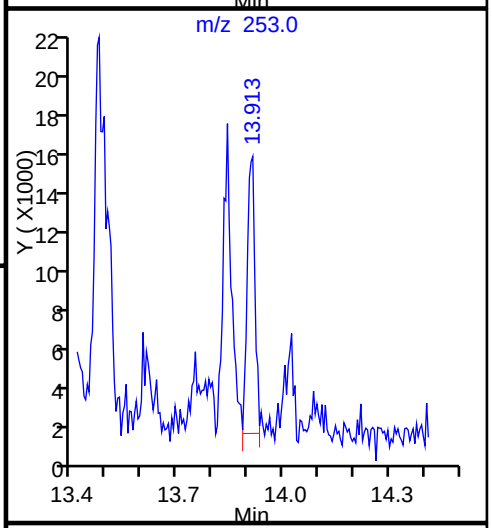


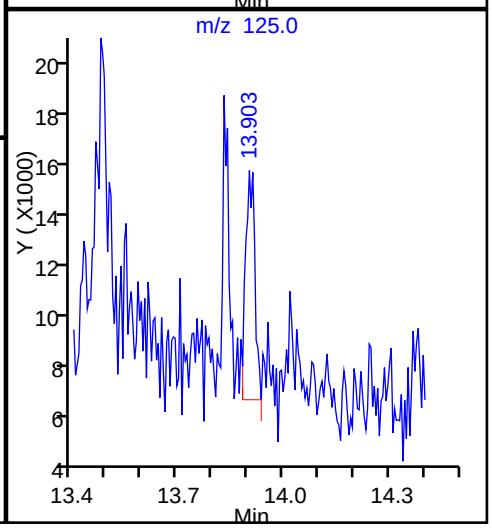












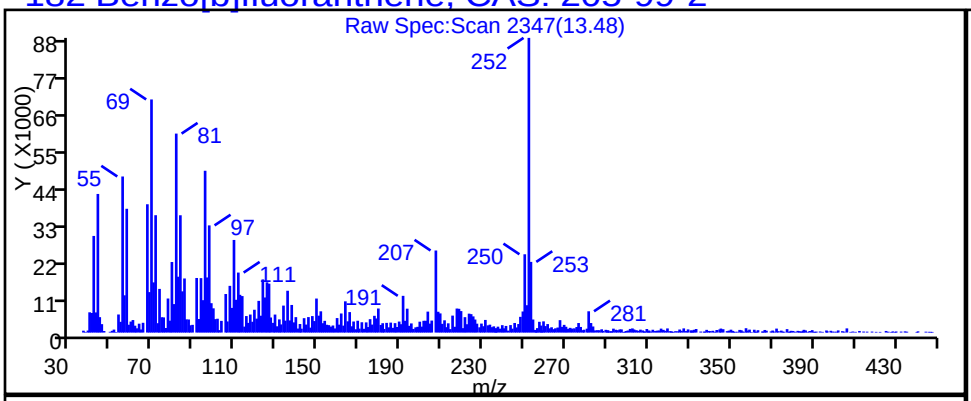
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

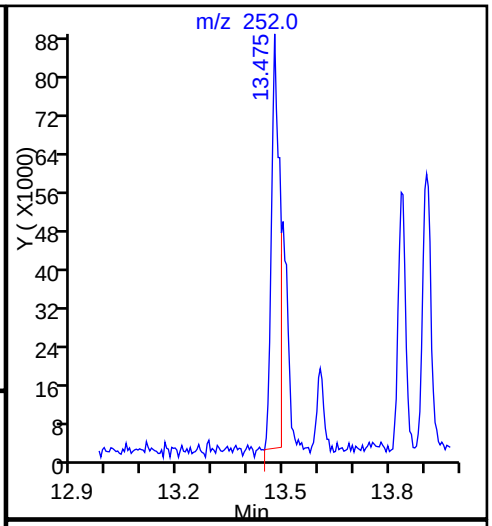
TestAmerica Canton

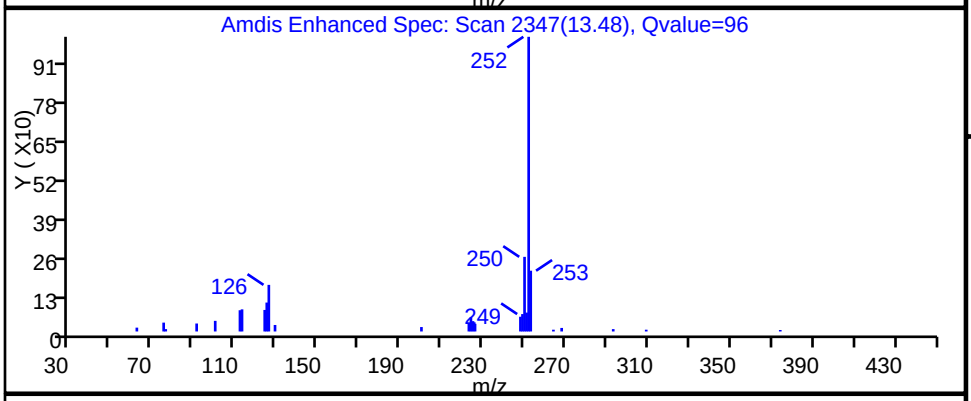
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

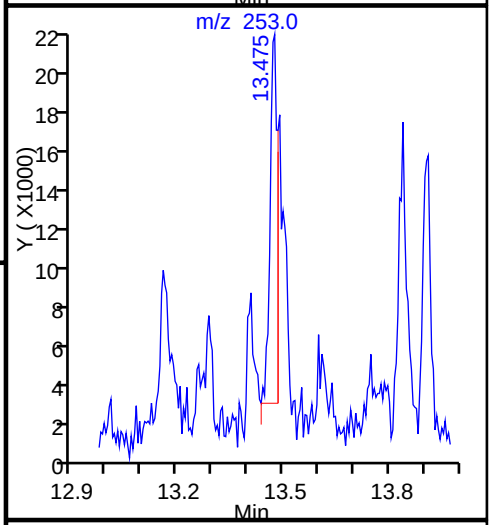
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

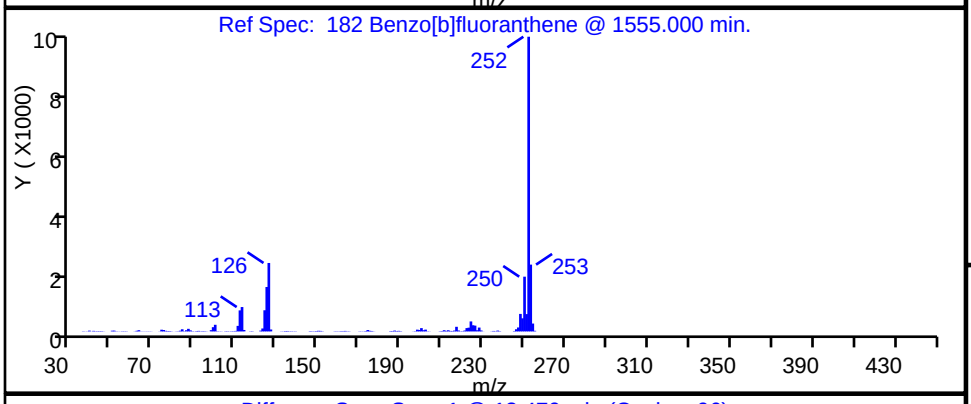
182 Benzo[b]fluoranthene, CAS: 205-99-2

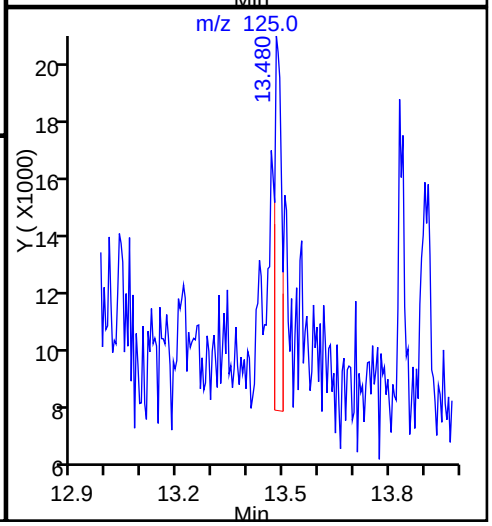


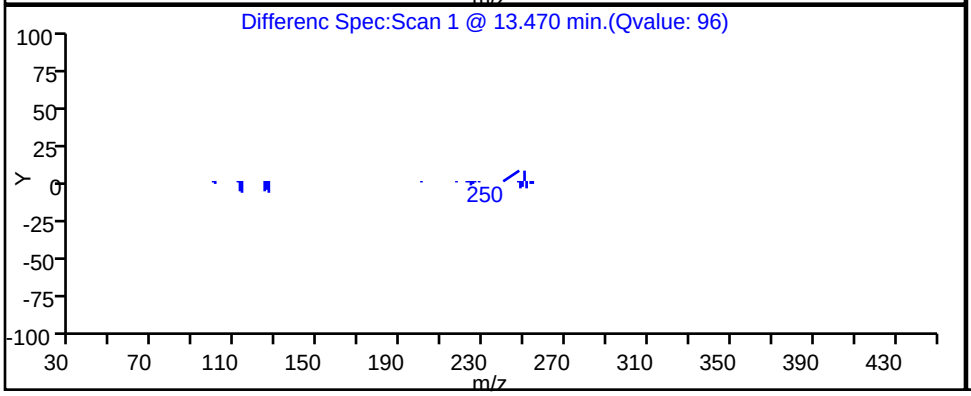












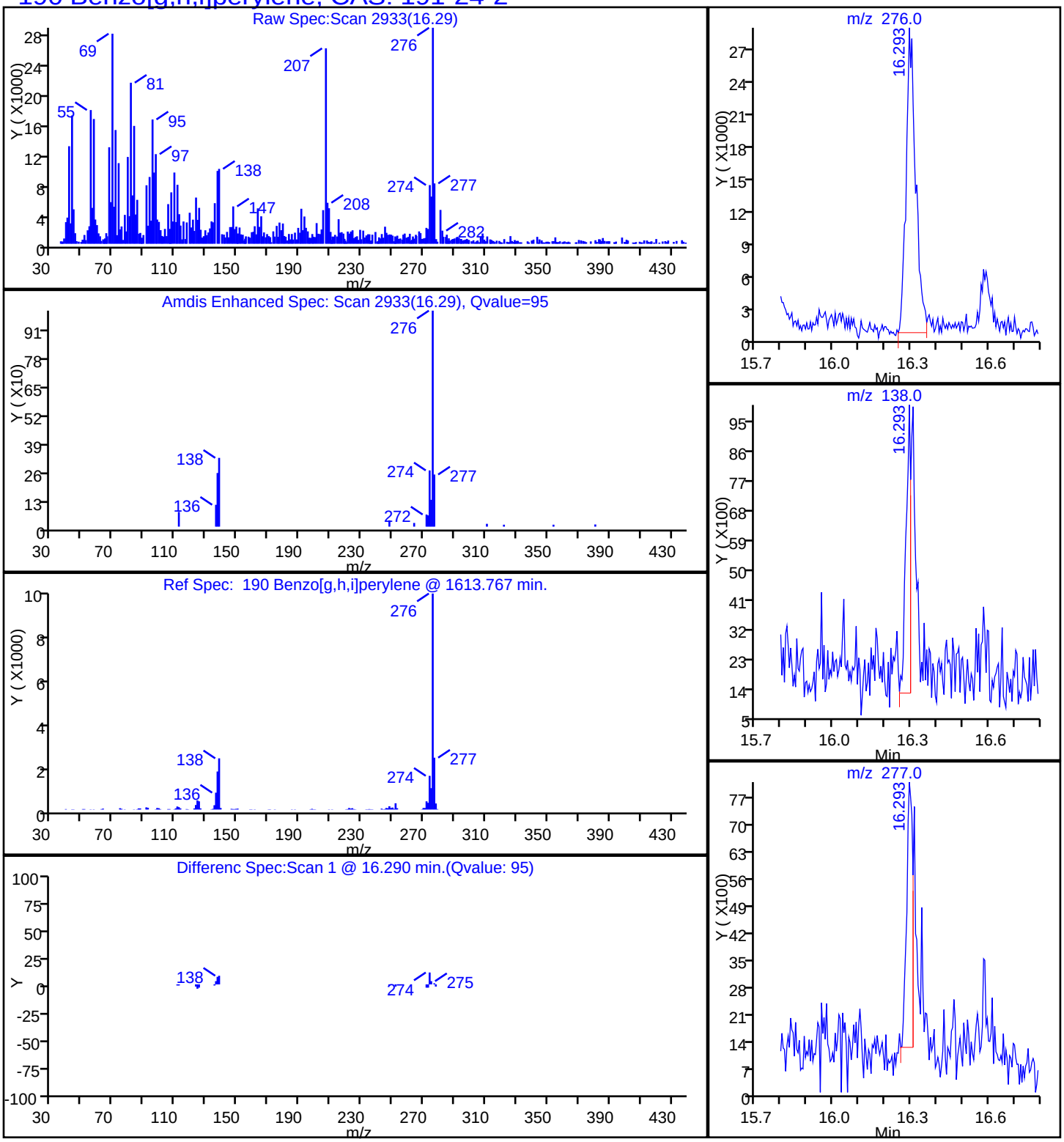
Report Date: 24-Aug-2015 09:27:03 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

190 Benzo[g,h,i]perylene, CAS: 191-24-2



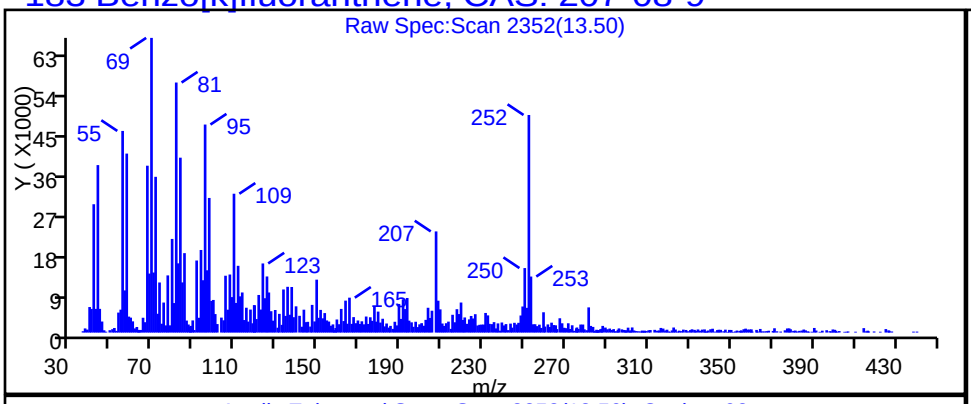
Report Date: 24-Aug-2015 09:27:03 Chrom Revision: 2.2 23-Jul-2015 08:26:08

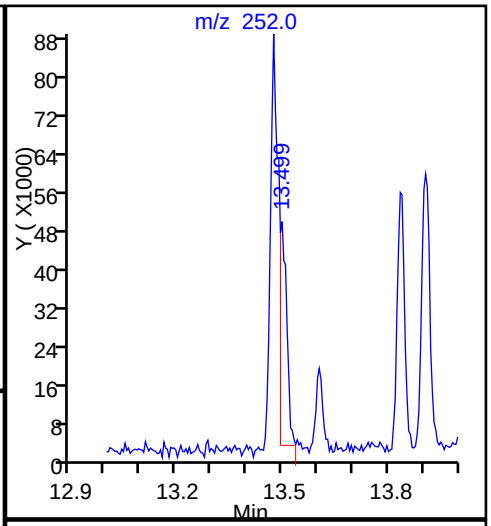
TestAmerica Canton

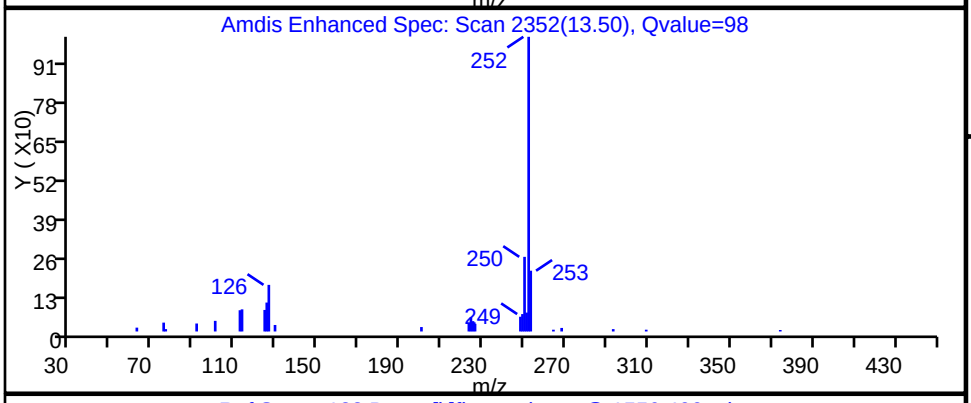
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

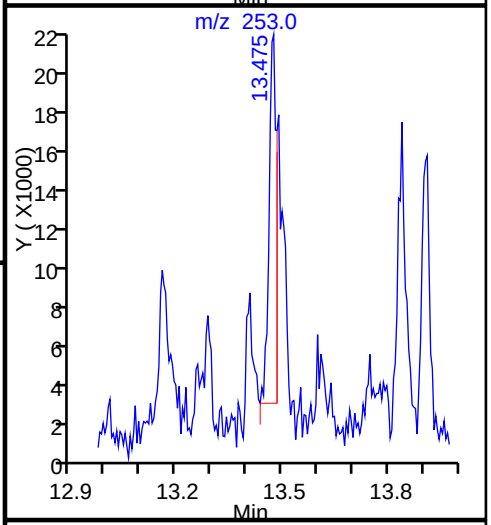
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

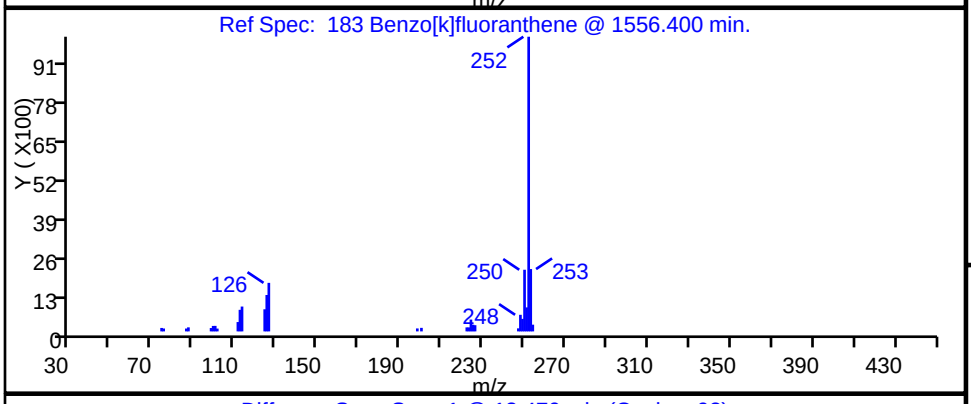
183 Benzo[k]fluoranthene, CAS: 207-08-9

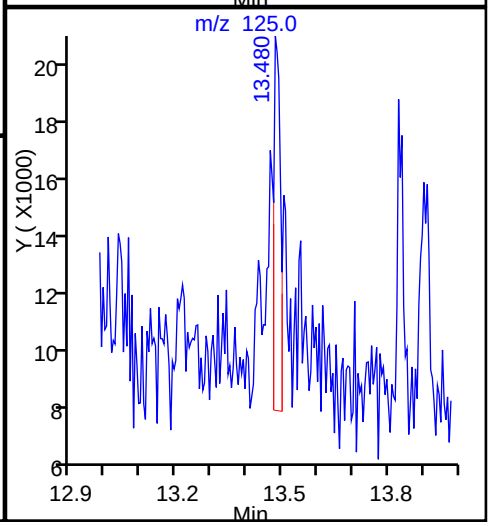


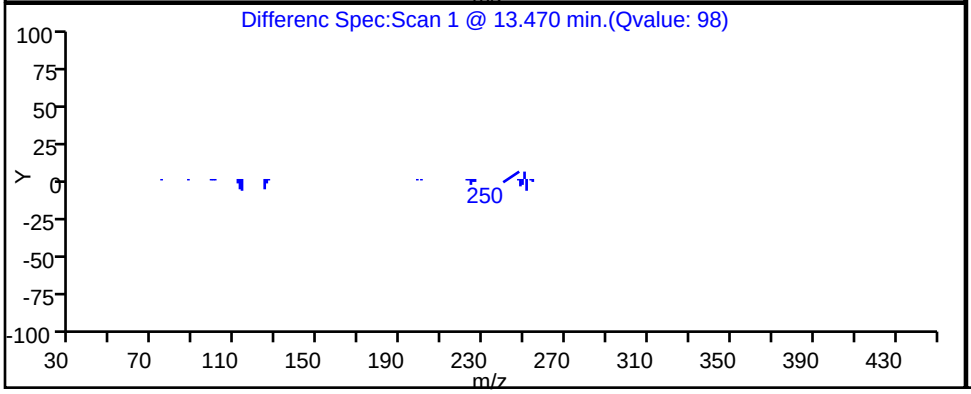












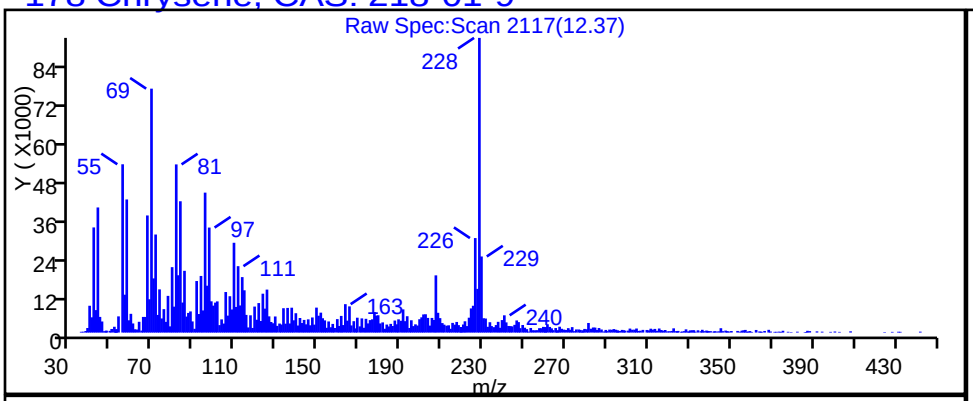
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

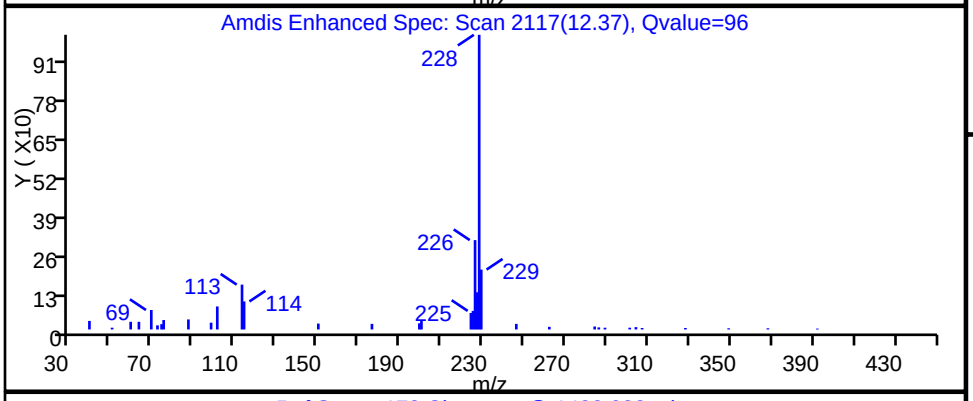
TestAmerica Canton

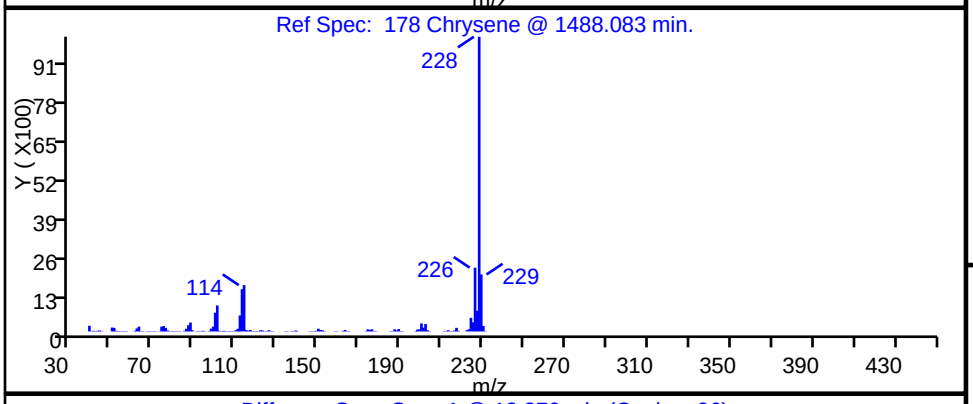
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

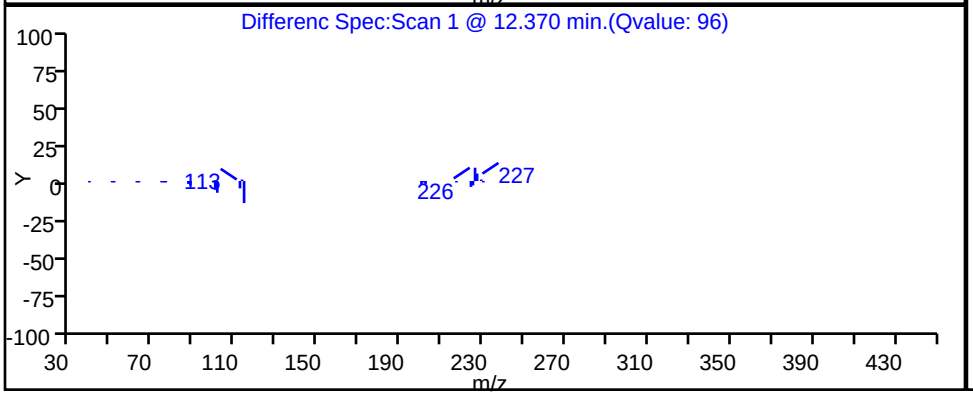
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

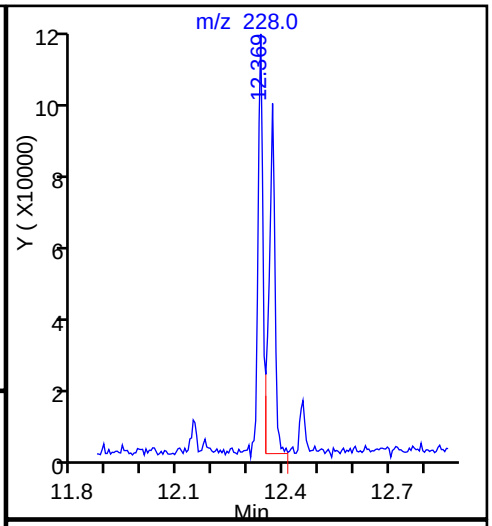
178 Chrysene, CAS: 218-01-9

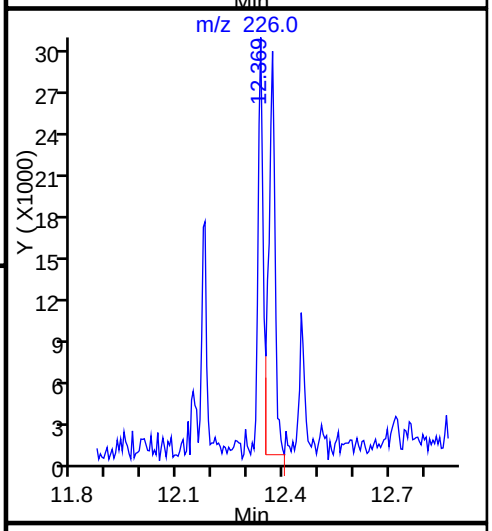


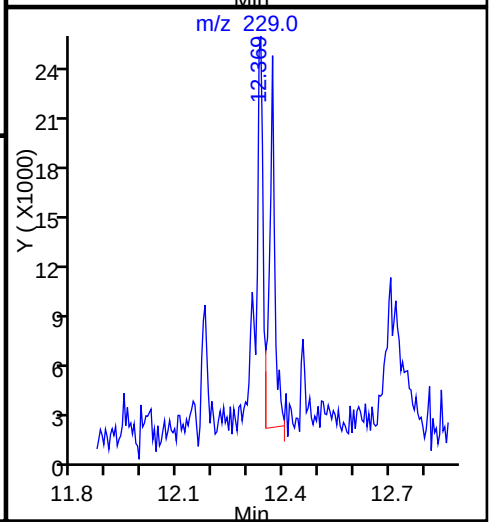












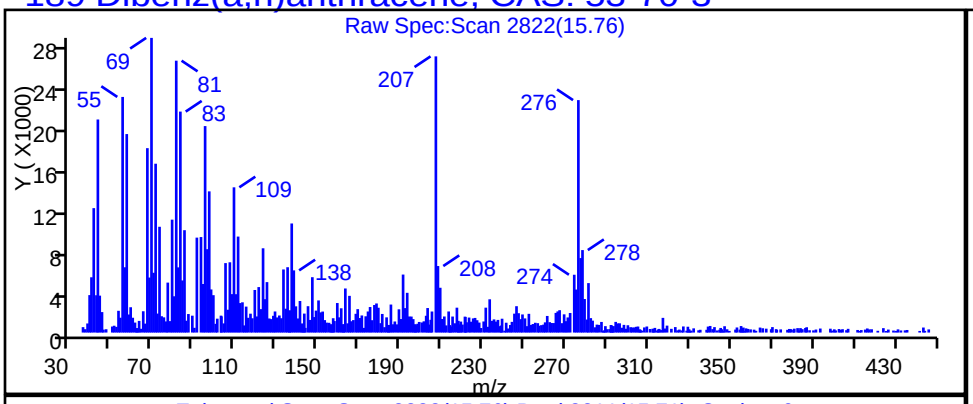
Report Date: 24-Aug-2015 09:27:03 Chrom Revision: 2.2 23-Jul-2015 08:26:08

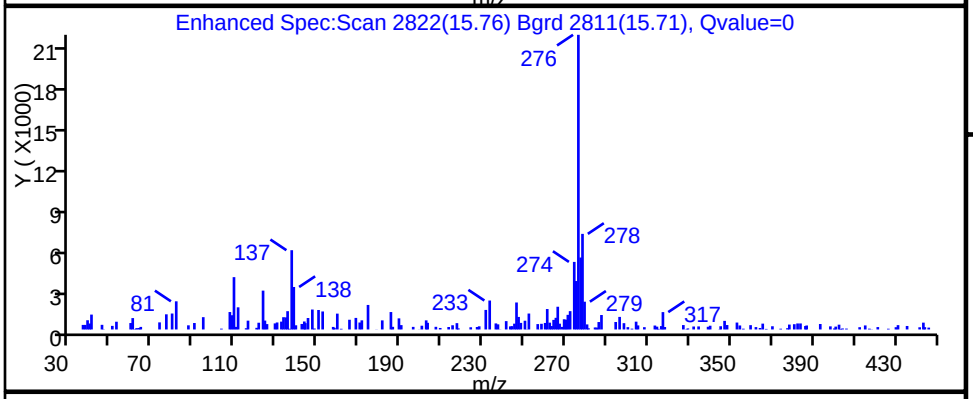
TestAmerica Canton

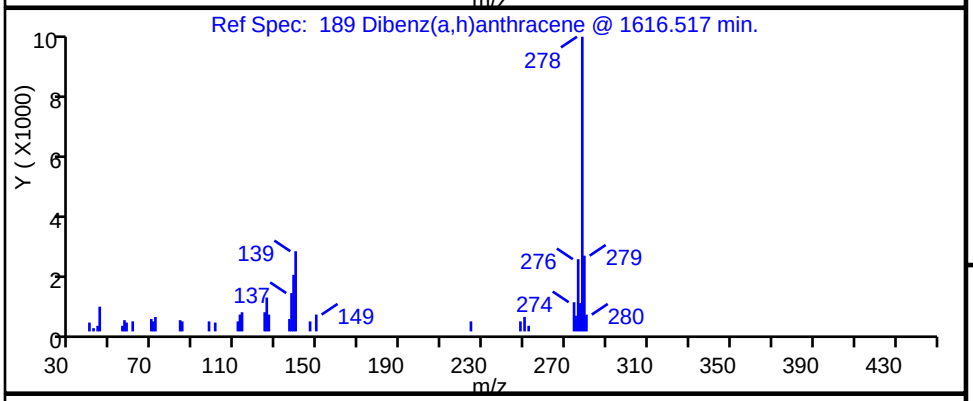
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

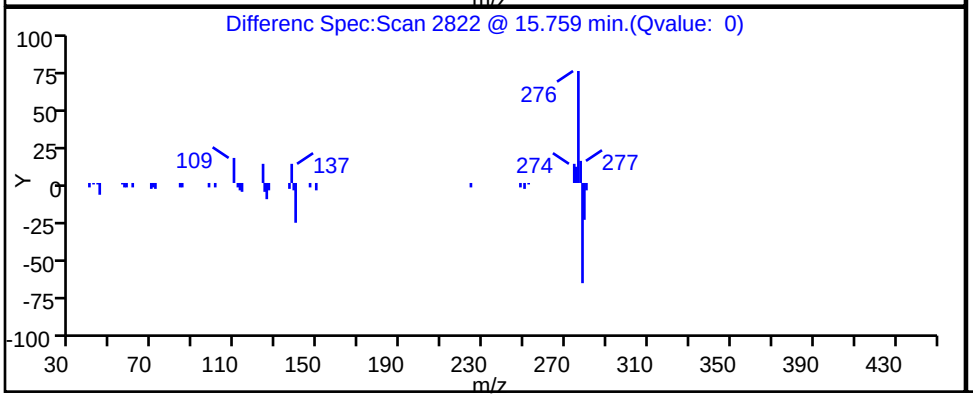
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

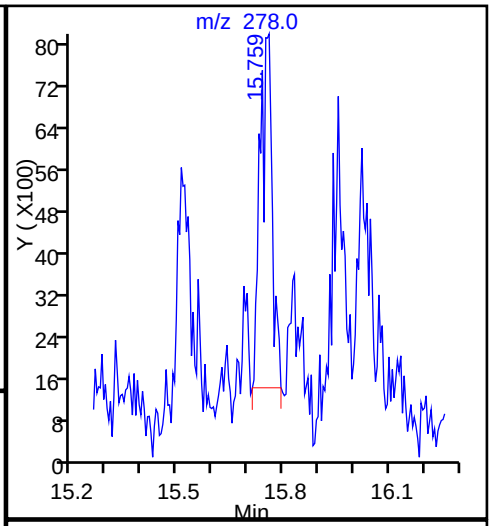
189 Dibenz(a,h)anthracene, CAS: 53-70-3

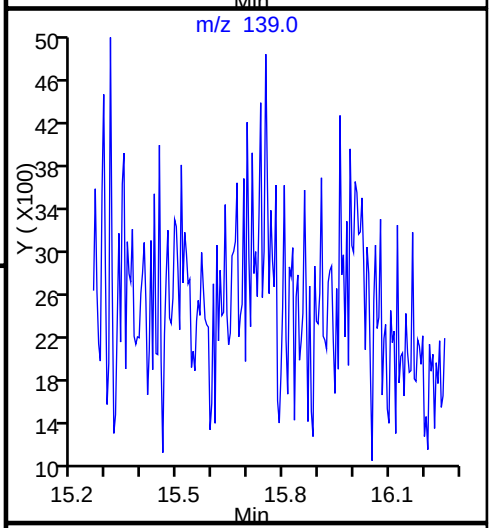


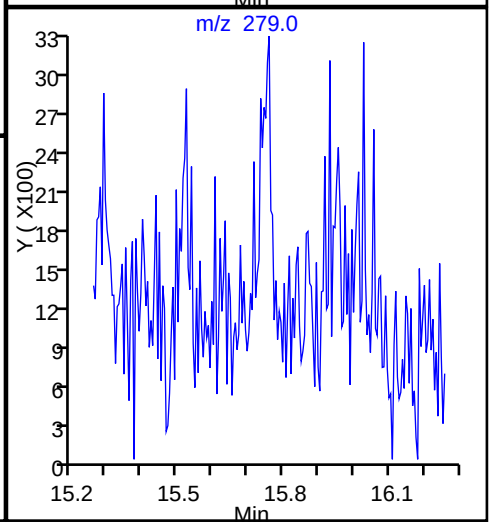












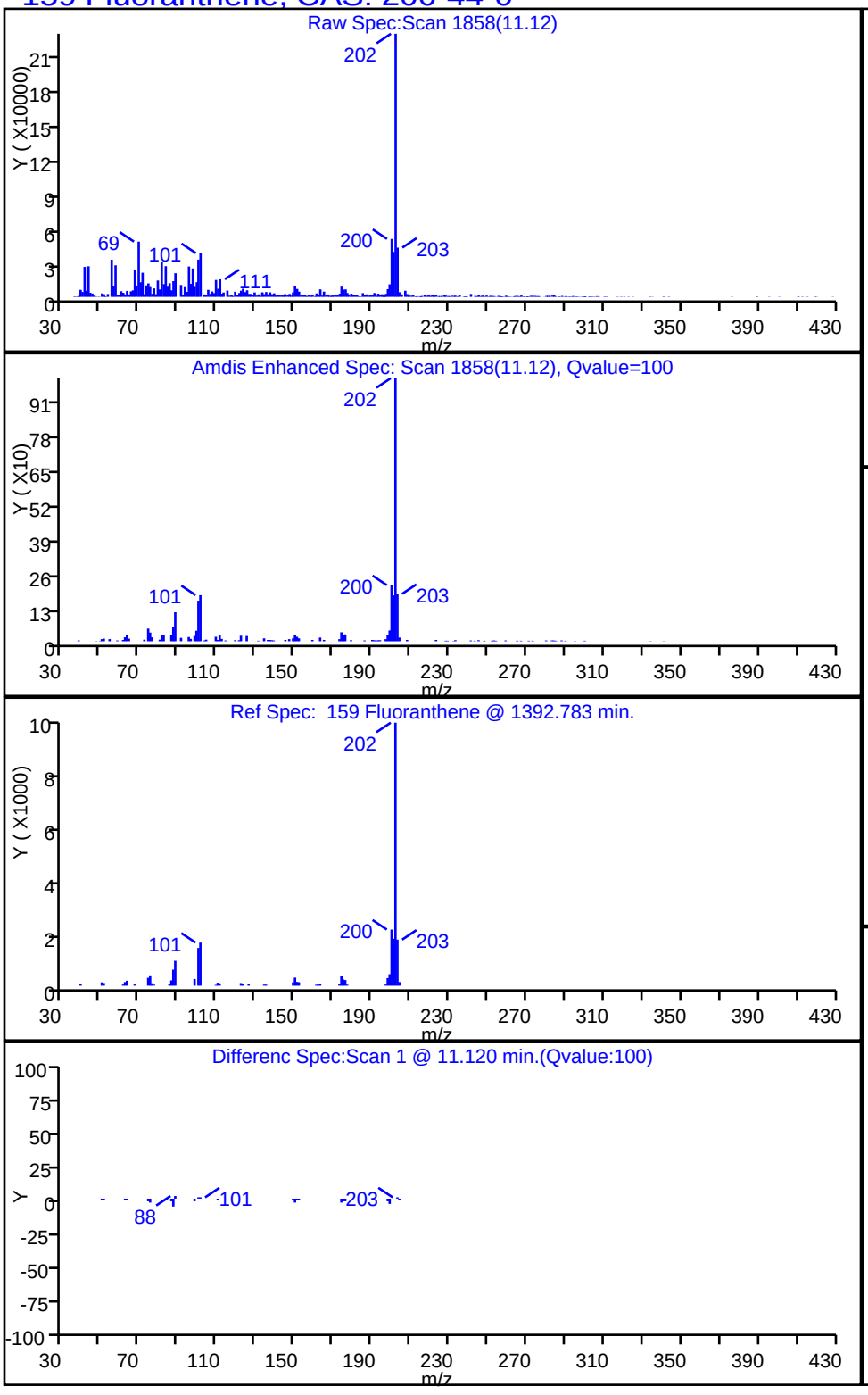
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

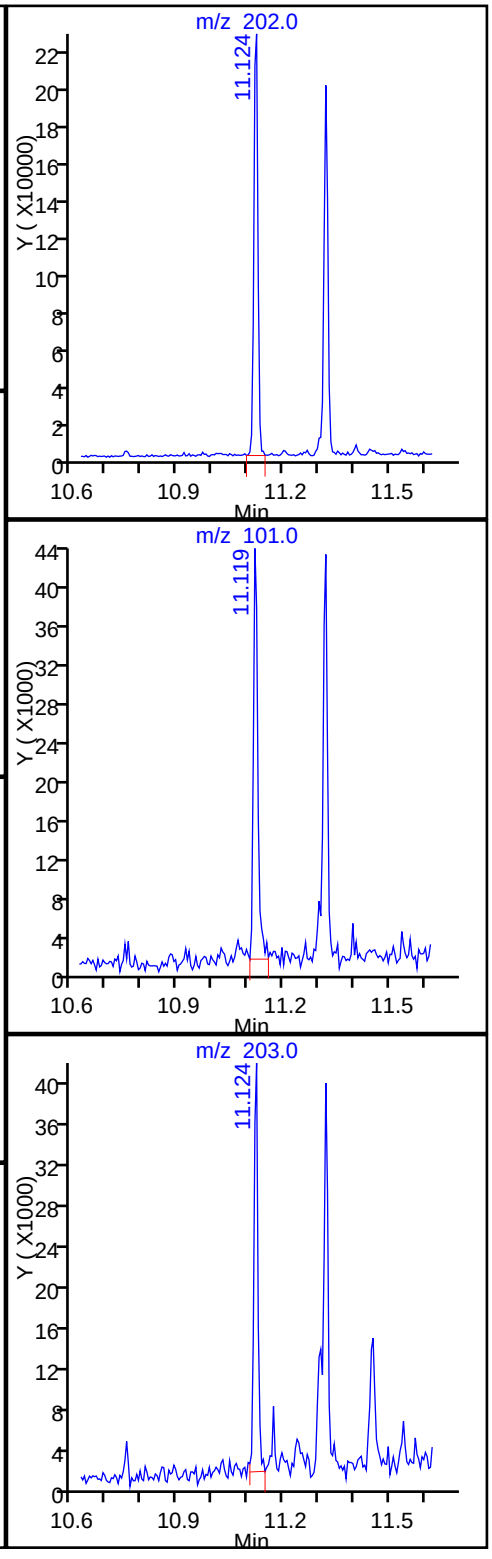
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

159 Fluoranthene, CAS: 206-44-0





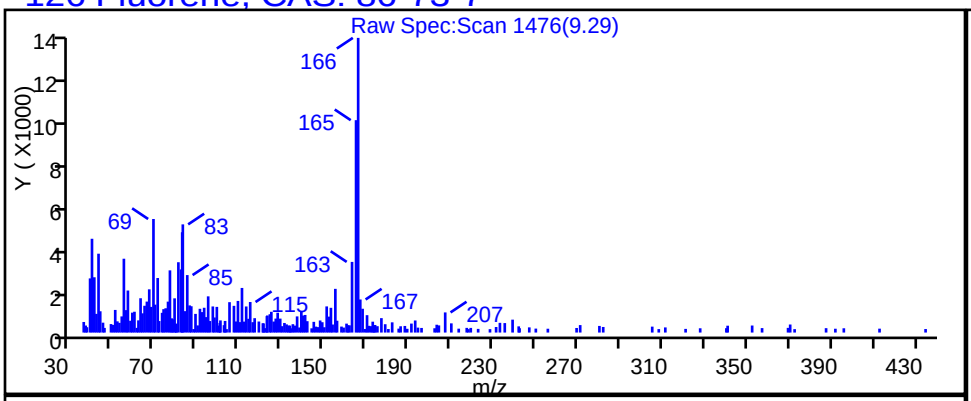
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

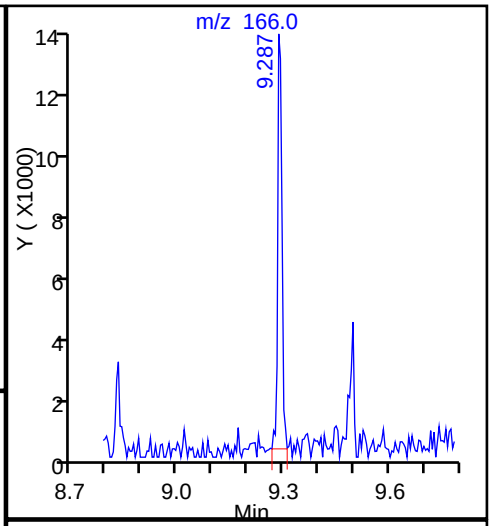
TestAmerica Canton

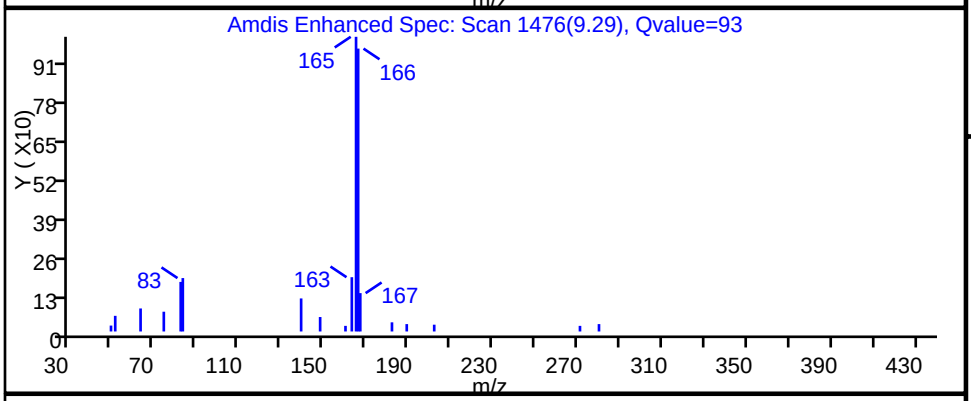
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

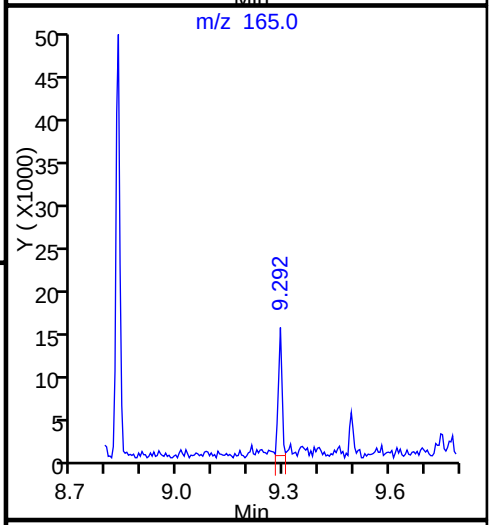
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

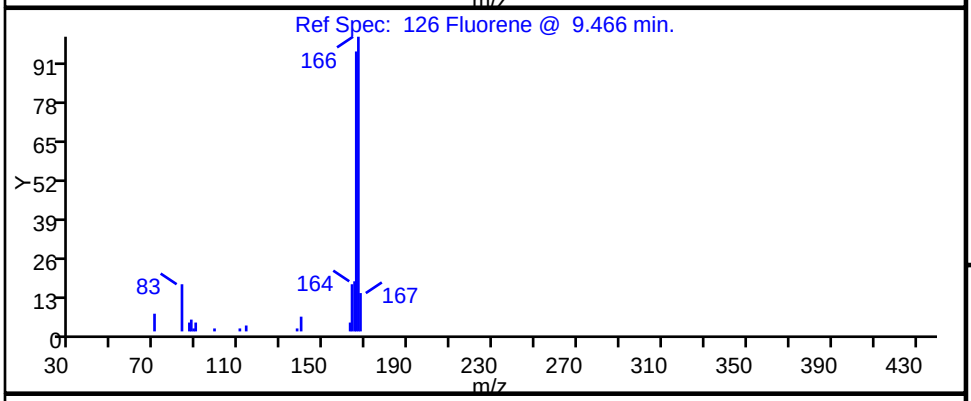
126 Fluorene, CAS: 86-73-7

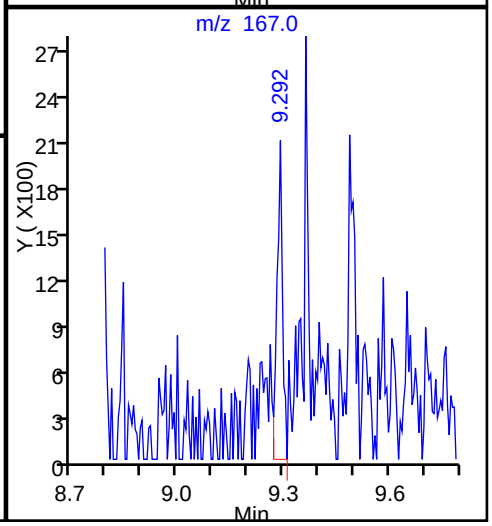


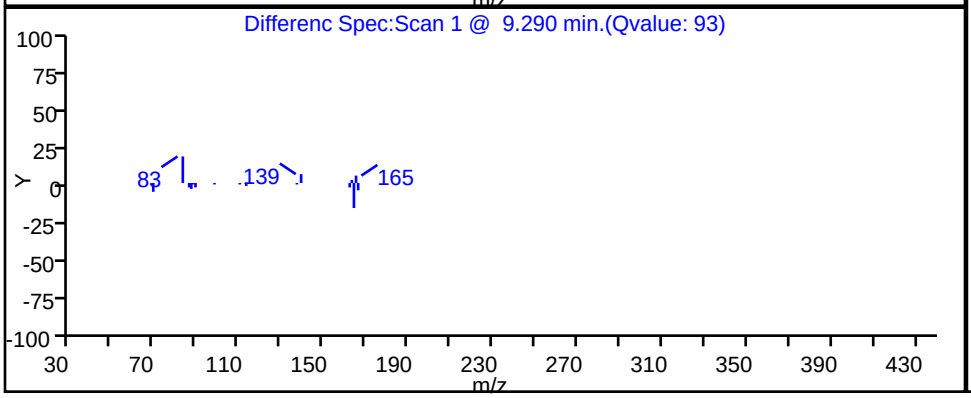












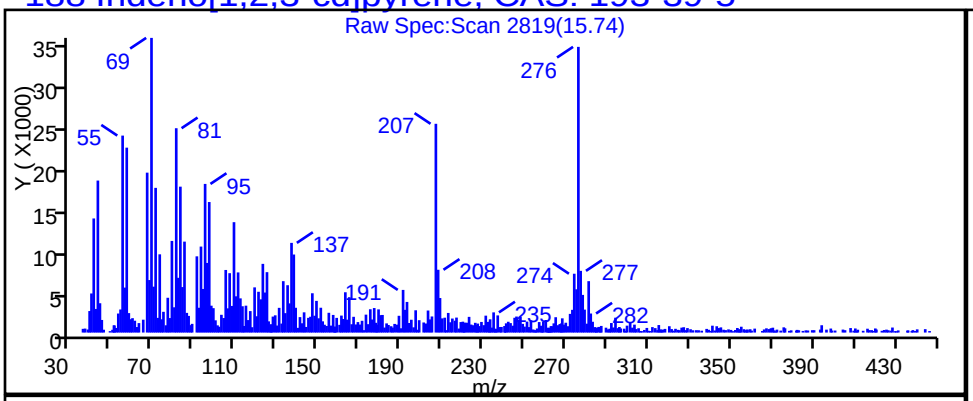
Report Date: 24-Aug-2015 09:27:03 Chrom Revision: 2.2 23-Jul-2015 08:26:08

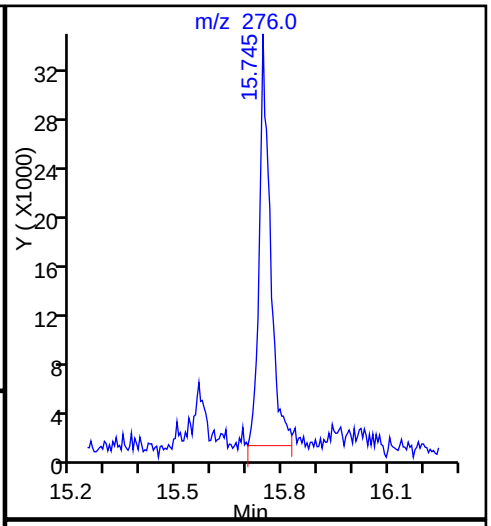
TestAmerica Canton

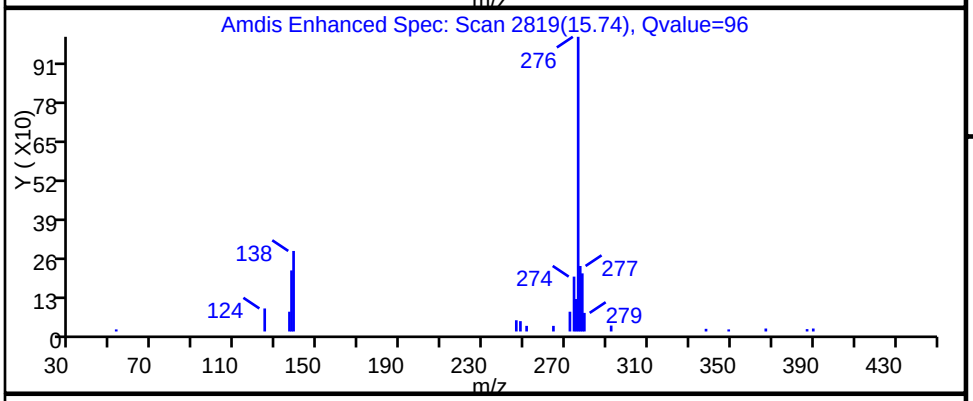
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

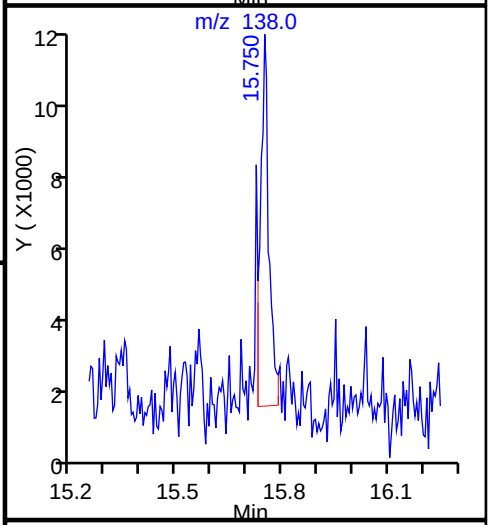
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

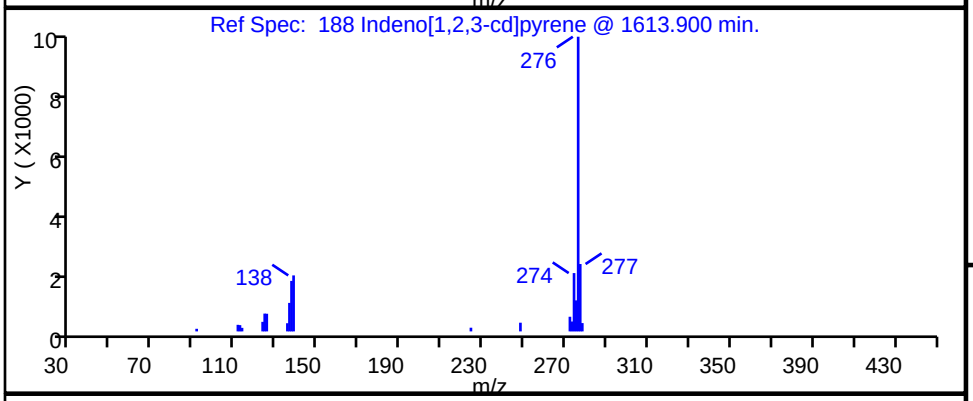
188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

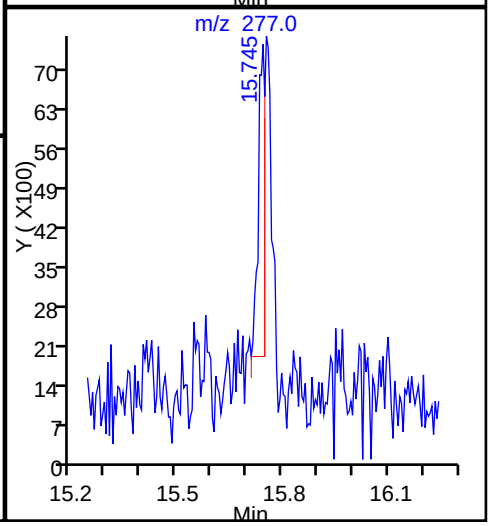


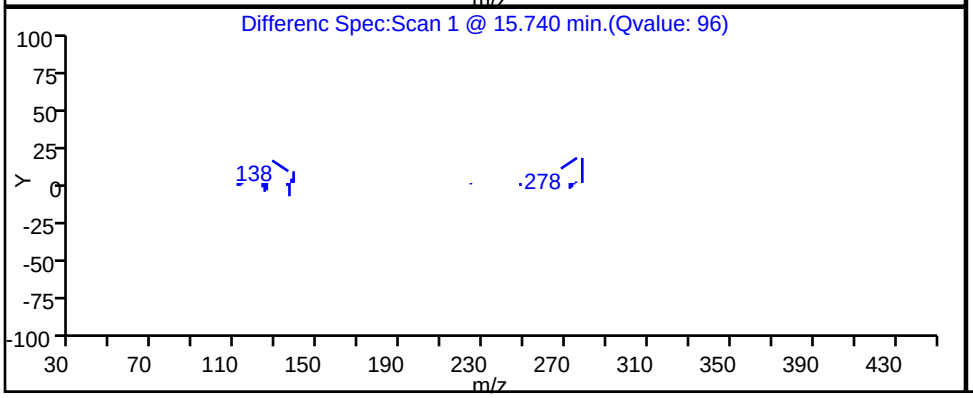












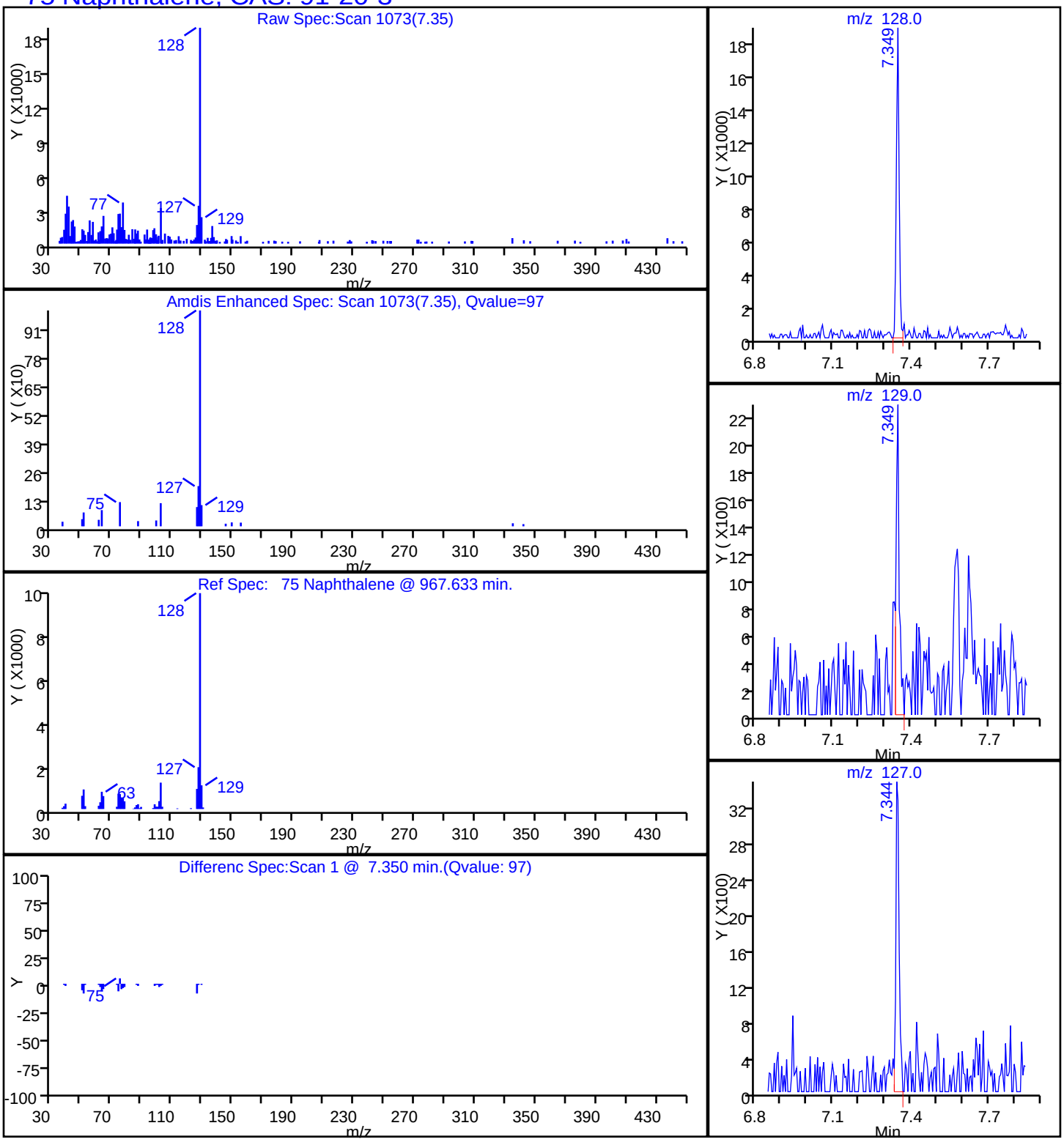
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

75 Naphthalene, CAS: 91-20-3



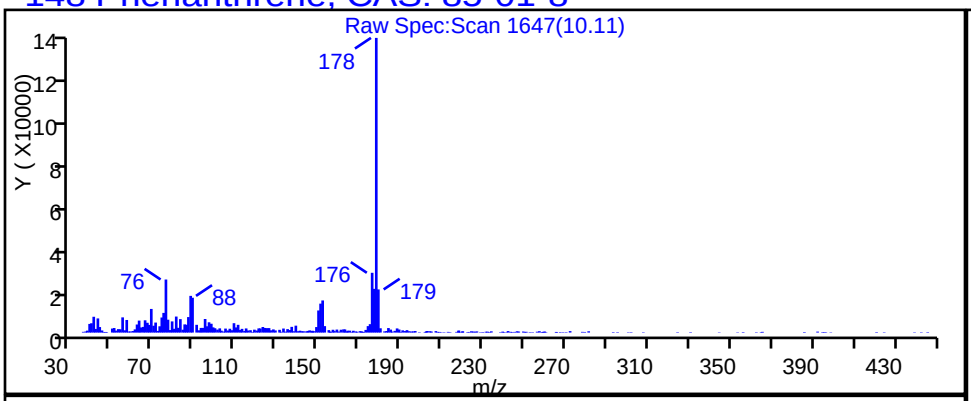
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

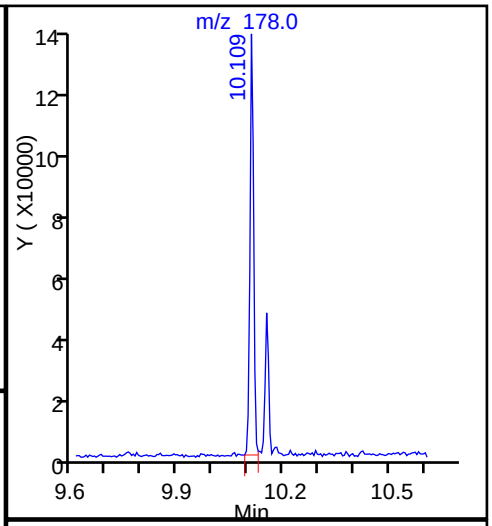
TestAmerica Canton

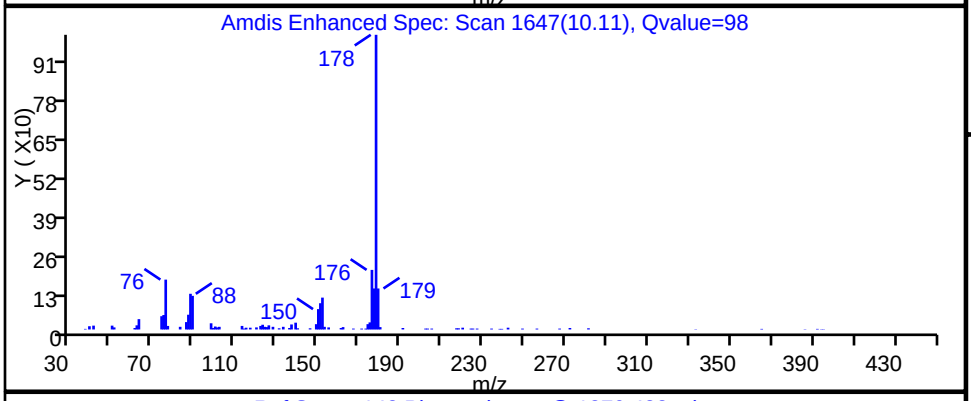
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

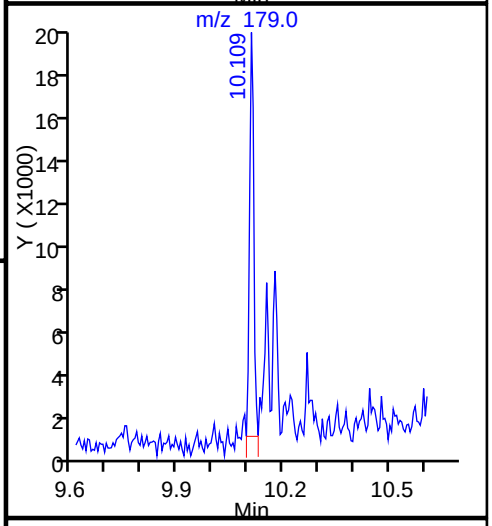
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

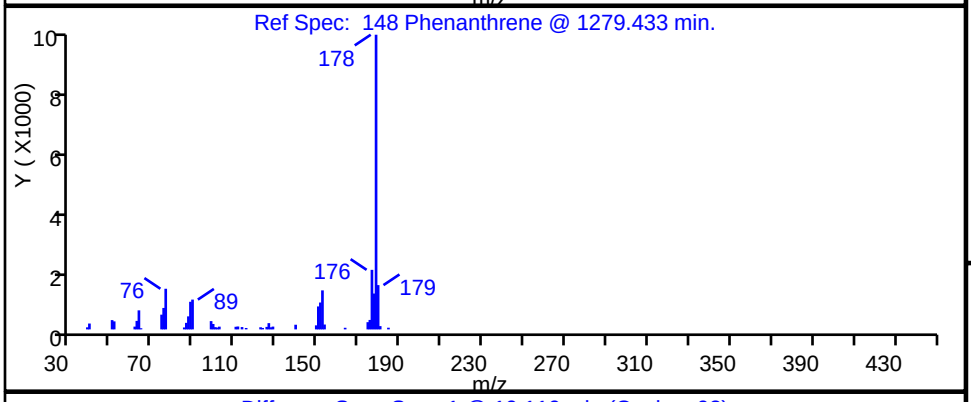
148 Phenanthrene, CAS: 85-01-8

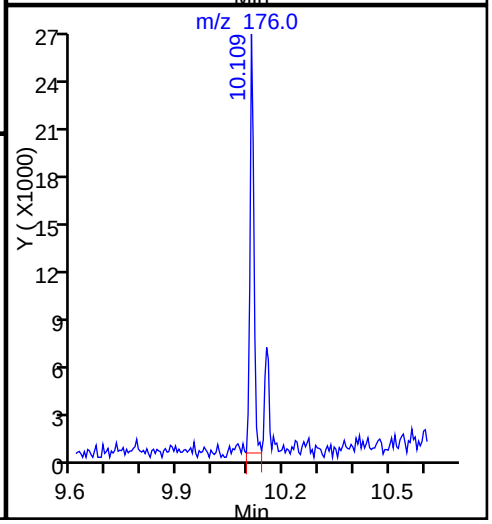


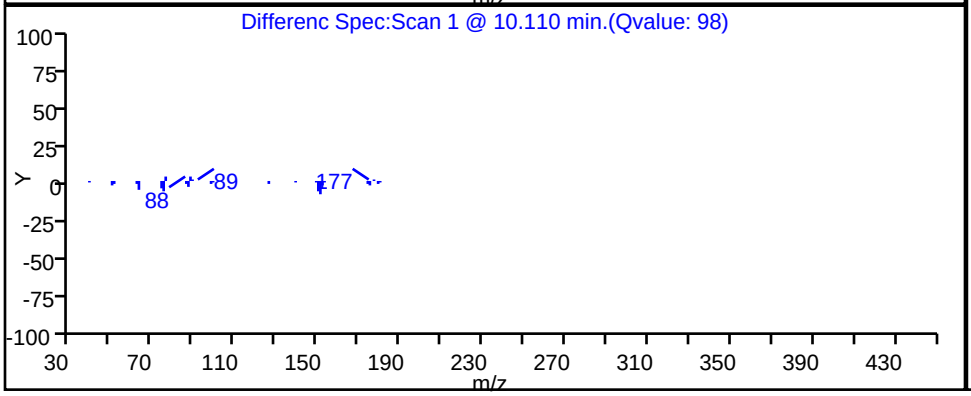












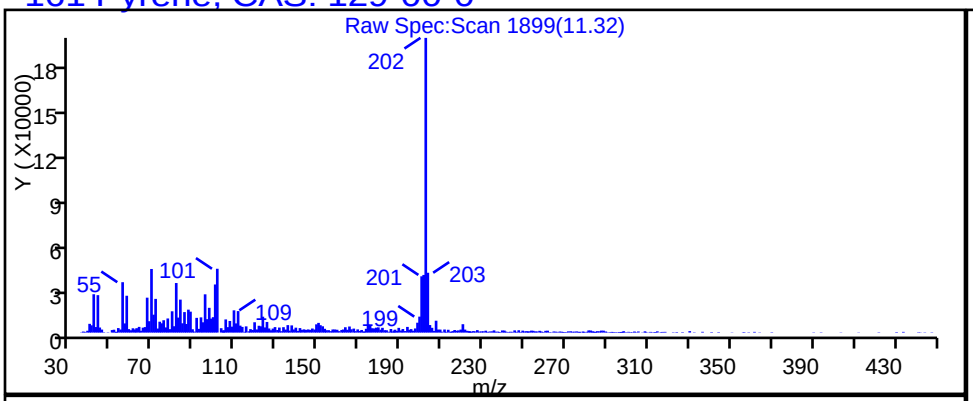
Report Date: 24-Aug-2015 09:27:02 Chrom Revision: 2.2 23-Jul-2015 08:26:08

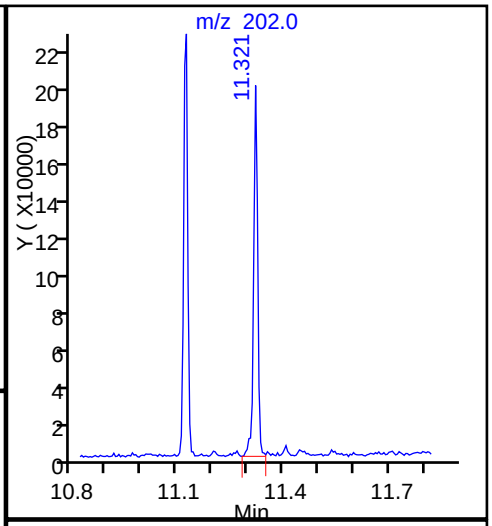
TestAmerica Canton

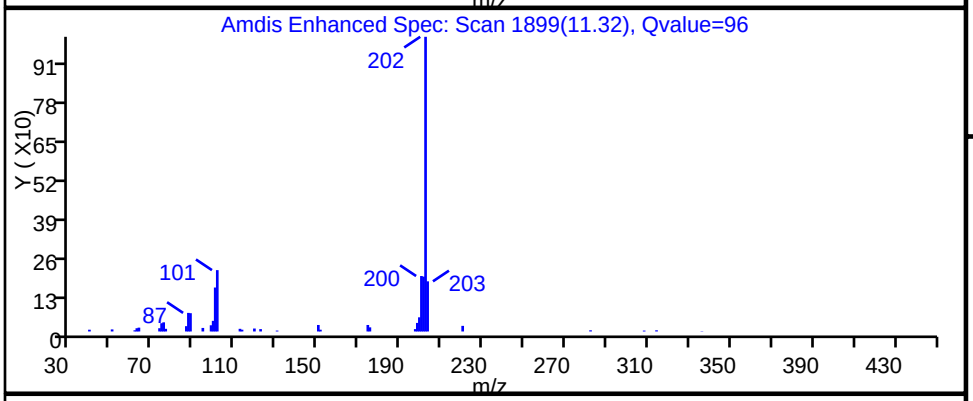
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D

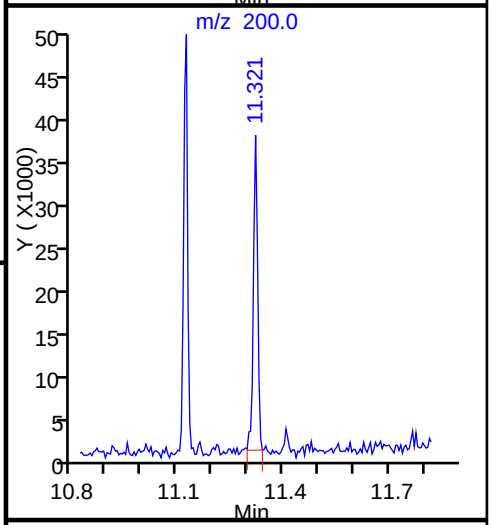
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

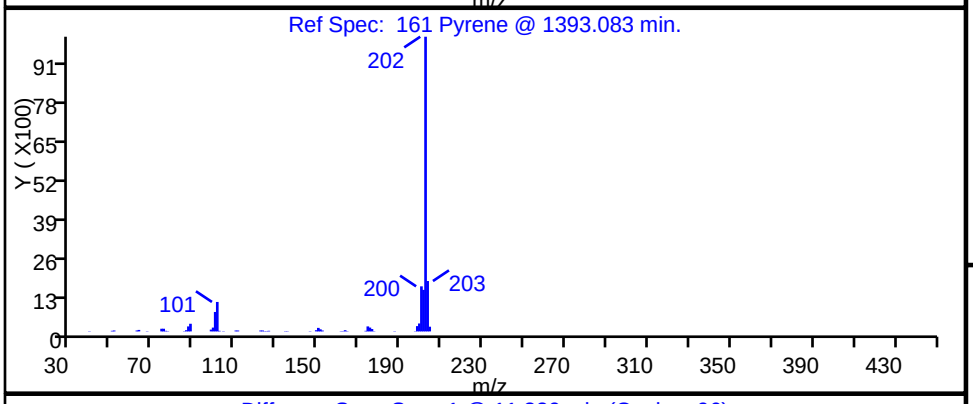
161 Pyrene, CAS: 129-00-0

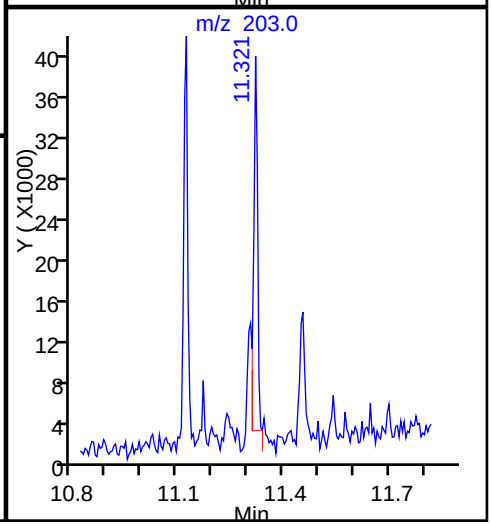


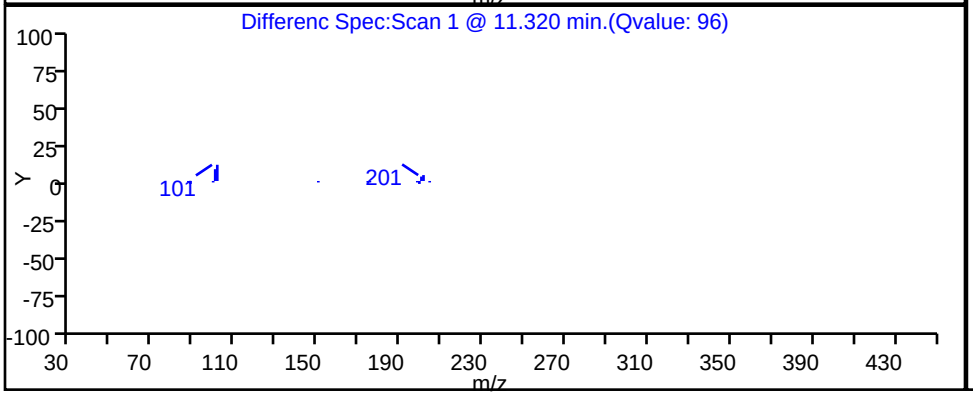












Manual Integration/User Assign Peak Report

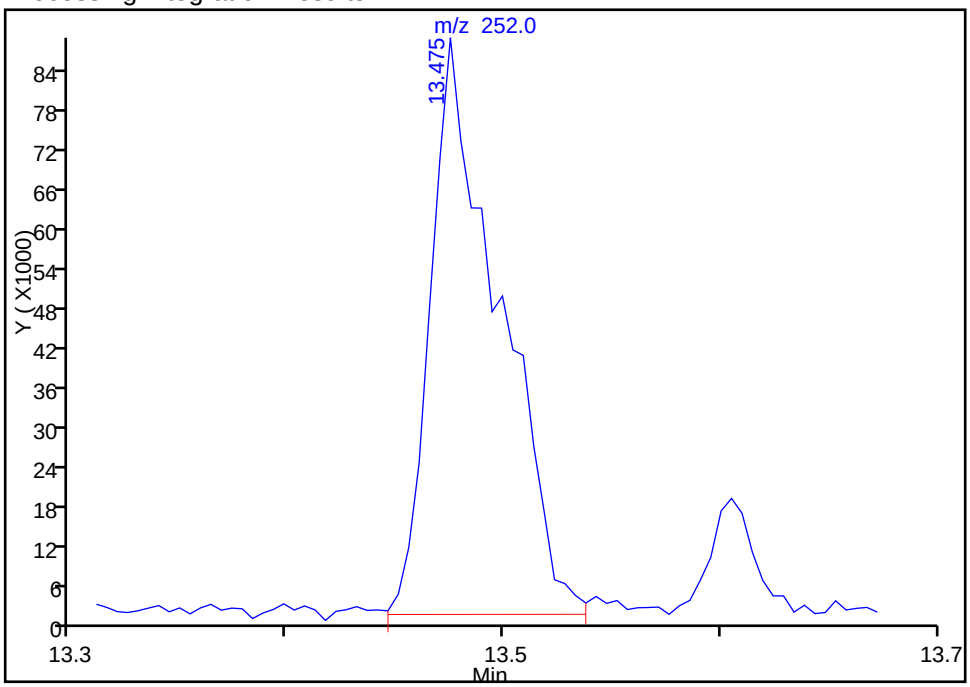
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D				
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

182 Benzo[b]fluoranthene, CAS: 205-99-2

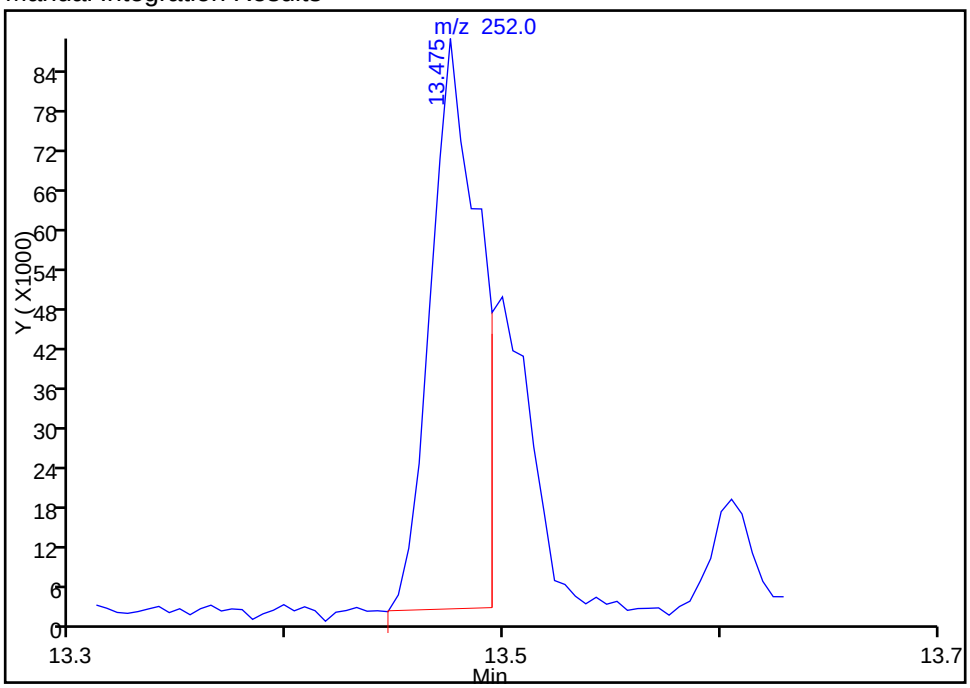
Processing Integration Results

RT: 13.48
Area: 191015
Amount: 1.203443
Amount Units: ng/ul



Manual Integration Results

RT: 13.48
Area: 135428
Amount: 0.853231
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:48:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

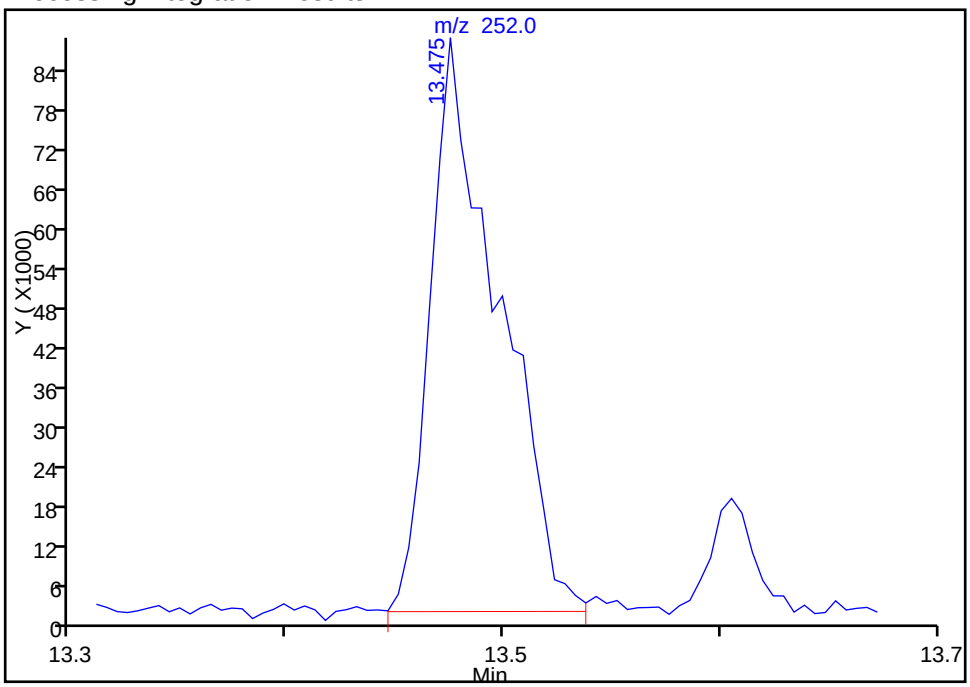
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D				
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

183 Benzo[k]fluoranthene, CAS: 207-08-9

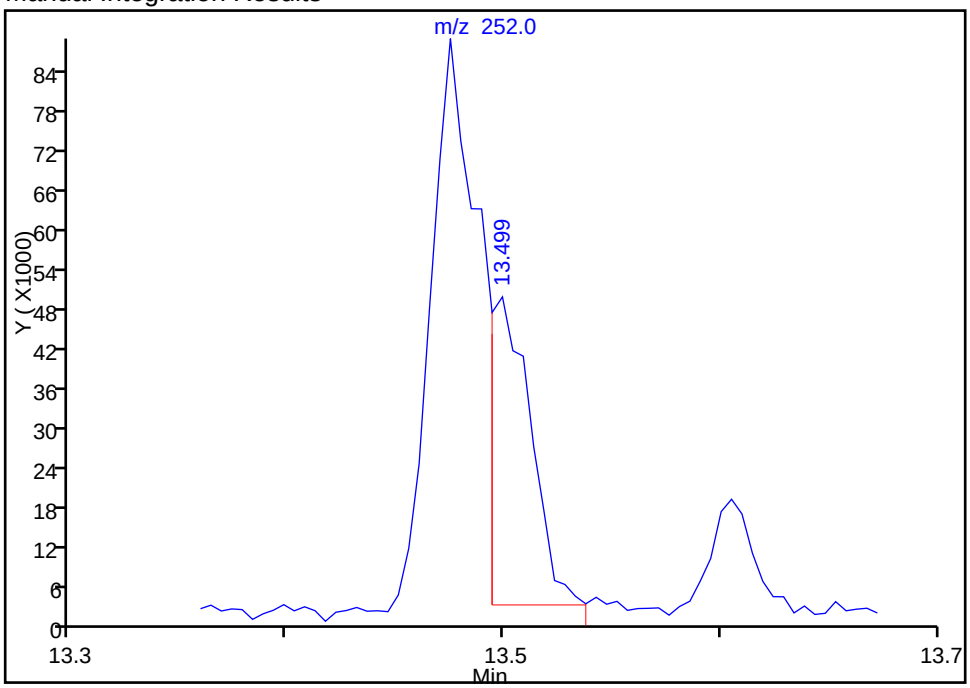
Processing Integration Results

RT: 13.48
Area: 188528
Amount: 1.174872
Amount Units: ng/ul



Manual Integration Results

RT: 13.50
Area: 61423
Amount: 0.382777
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:48:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

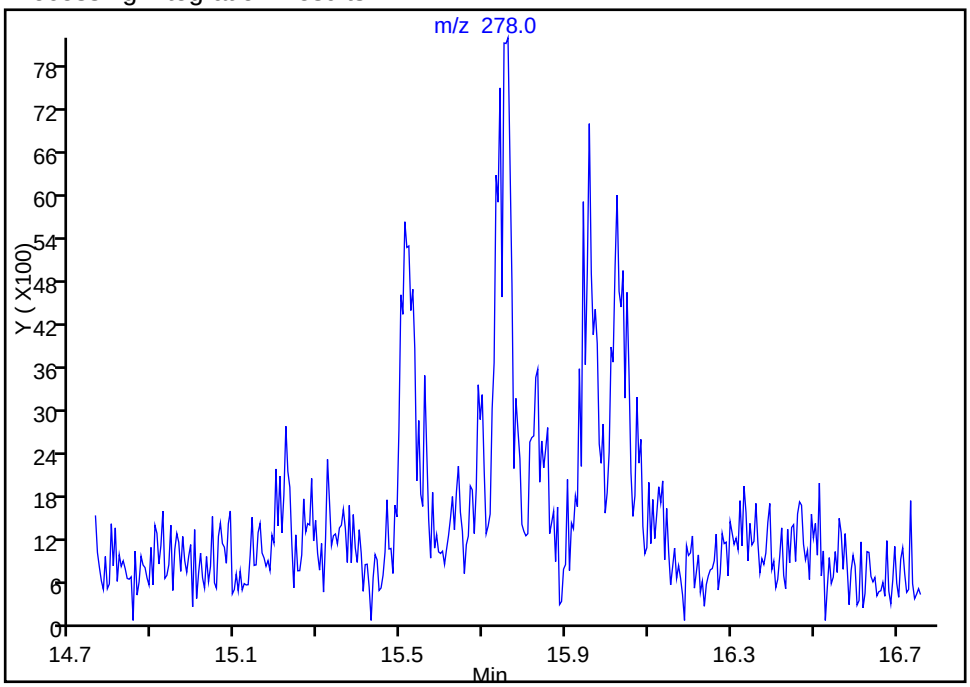
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822020.D				
Injection Date:	22-Aug-2015 17:51:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-5-A	Lab Sample ID:	240-54467-5		
Client ID:	D-VB-F-15-2				
Operator ID:	001710	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

189 Dibenz(a,h)anthracene, CAS: 53-70-3

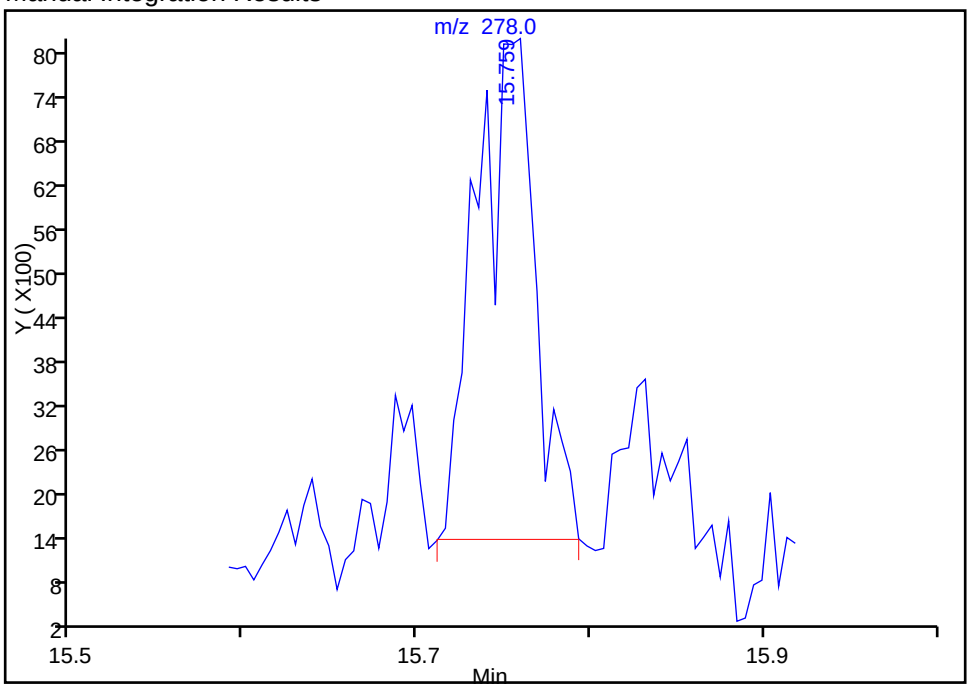
Not Detected
Expected RT: 15.76

Processing Integration Results



Manual Integration Results

RT: 15.76
Area: 16150
Amount: 0.131198
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:48:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-19-2 | Lab Sample ID: 240-54467-6

Matrix: Solid | Lab File ID: 50822019.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:40

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.91(g) | Date Analyzed: 08/22/2015 17:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	5.9	J	7.8	0.91
56-55-3	Benzo[a]anthracene	14		7.8	0.73
50-32-8	Benzo[a]pyrene	10		7.8	0.74
205-99-2	Benzo[b]fluoranthene	36		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	22		7.8	0.41
207-08-9	Benzo[k]fluoranthene	12		7.8	0.79
218-01-9	Chrysene	42		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	34		7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	17		7.8	0.41
91-20-3	Naphthalene	4.1	J	7.8	0.95
85-01-8	Phenanthrene	15		7.8	0.85
129-00-0	Pyrene	30		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D
Lims ID: 240-54467-B-6-A Lab Sample ID: 240-54467-6
Client ID: D-VB-F-19-2
Sample Type: Client
Inject. Date: 22-Aug-2015 17:26:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-019
Misc. Info.: 240-54467-B-6-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 08:47:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.210	6.214	-0.004	94	134468	4.00	
* 2 Naphthalene-d8	136	7.331	7.330	0.001	98	505382	4.00	
* 3 Acenaphthene-d10	164	8.826	8.830	-0.004	91	305107	4.00	
* 4 Phenanthrene-d10	188	10.091	10.090	0.001	96	521908	4.00	
* 5 Chrysene-d12	240	12.346	12.345	0.001	96	572843	4.00	
* 6 Perylene-d12	264	13.981	13.985	-0.004	97	522934	4.00	
$ 7 2-Fluorophenol	112	5.008	4.983	0.025	94	411253	6.99	
$ 8 Phenol-d5	99	5.893	5.882	0.011	97	612512	7.36	
$ 9 Nitrobenzene-d5	82	6.691	6.690	0.001	84	606563	6.20	
$ 10 2-Fluorobiphenyl (Surr)	172	8.230	8.234	-0.004	98	664136	6.66	
$ 11 2,4,6-Tribromophenol	330	9.495	9.499	-0.004	79	40359	4.07	
$ 12 Terphenyl-d14	244	11.409	11.408	0.001	99	879868	8.35	
75 Naphthalene	128	7.345	7.349	-0.004	93	7619	0.0527	
109 Acenaphthylene	152		8.715				ND	
112 Acenaphthene	153		8.859				ND	
126 Fluorene	166		9.292				ND	
148 Phenanthrene	178	10.110	10.114	-0.004	97	31881	0.1926	
149 Anthracene	178	10.154	10.157	-0.003	81	12587	0.0765	
159 Fluoranthene	202	11.120	11.124	-0.004	99	73799	0.4418	
161 Pyrene	202	11.322	11.321	0.001	95	64632	0.3915	
177 Benzo[a]anthracene	228	12.332	12.336	-0.004	94	32788	0.1855	
178 Chrysene	228	12.370	12.369	0.001	97	90372	0.5449	
182 Benzo[b]fluoranthene	252	13.472	13.475	-0.003	96	72913	0.4706	
183 Benzo[k]fluoranthene	252	13.500	13.509	-0.009	98	24162	0.1542	M
184 Benzo[a]pyrene	252	13.909	13.908	0.001	75	19280	0.1307	
188 Indeno[1,2,3-cd]pyrene	276	15.741	15.755	-0.014	60	34594	0.2257	
189 Dibenz(a,h)anthracene	278		15.760				ND	
190 Benzo[g,h,i]perylene	276	16.299	16.303	-0.004	77	36538	0.2869	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011	Amount Added:	5.00	Units: uL	Run Reagent

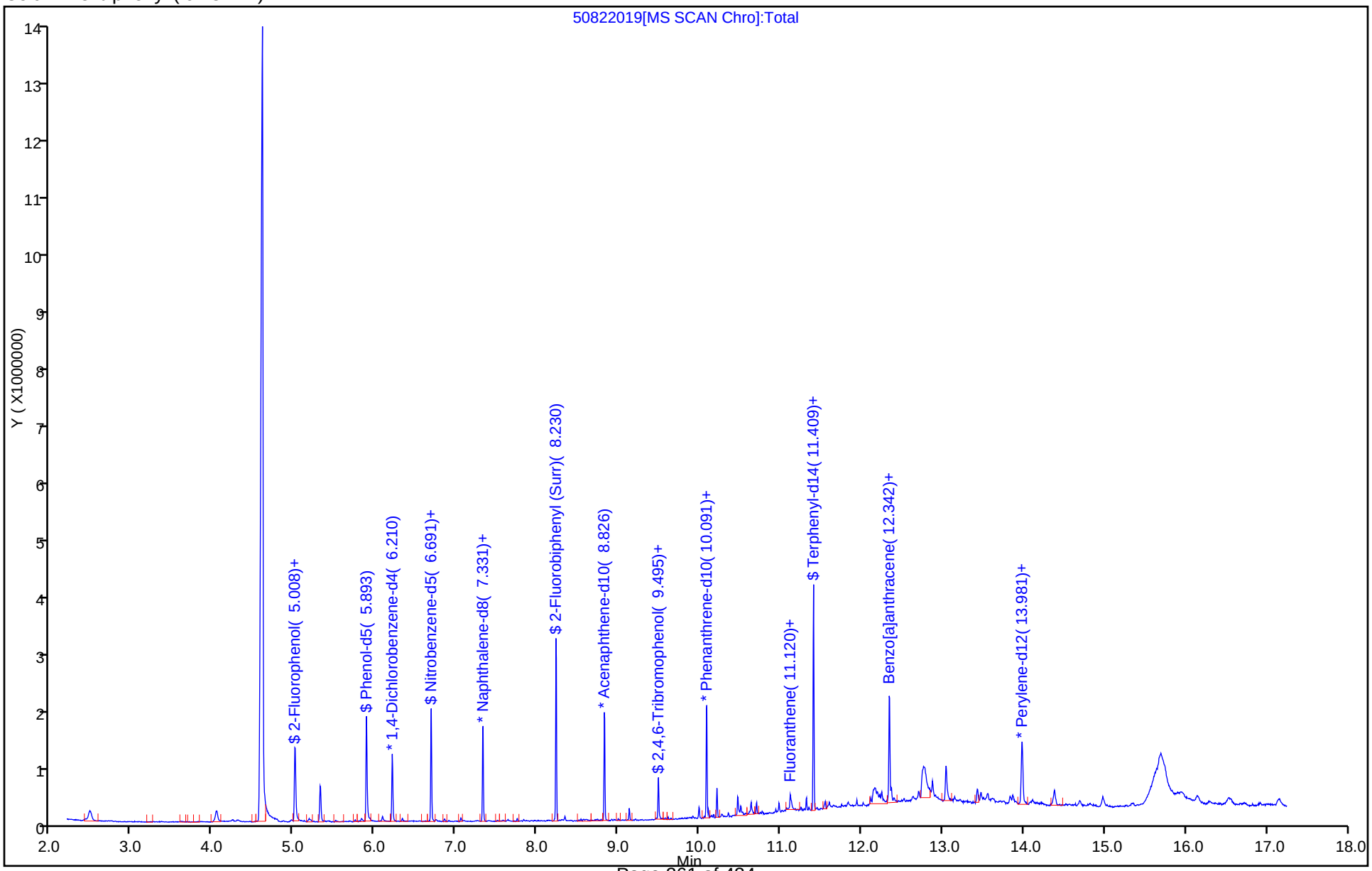
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6	Worklist Smp#:	19
Client ID:	D-VB-F-19-2				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



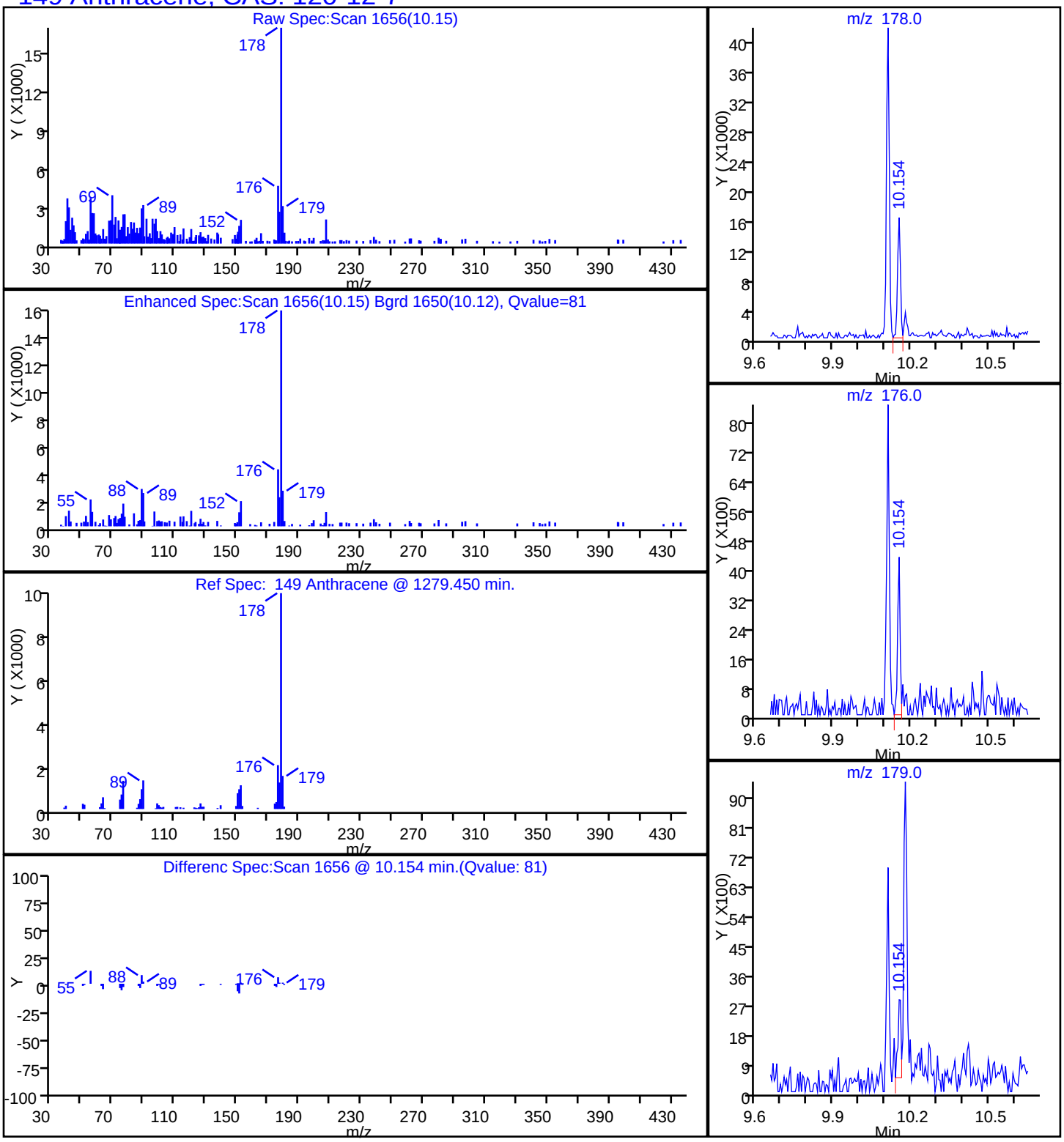
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

149 Anthracene, CAS: 120-12-7



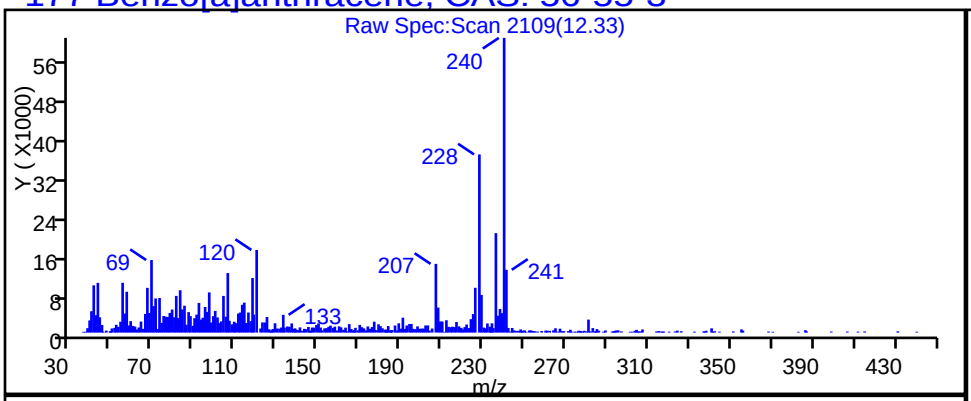
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

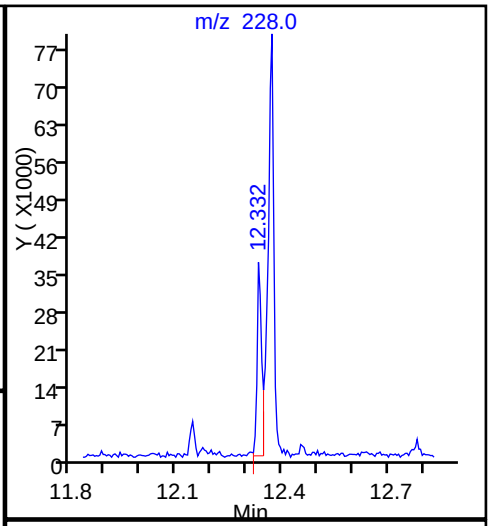
TestAmerica Canton

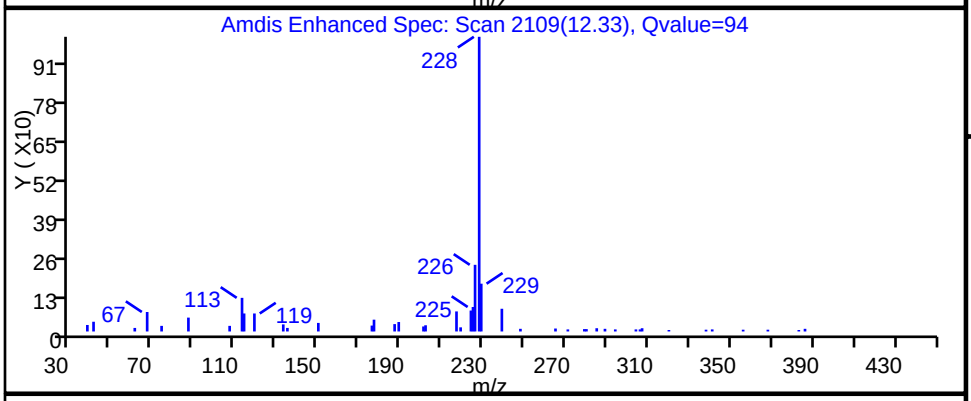
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

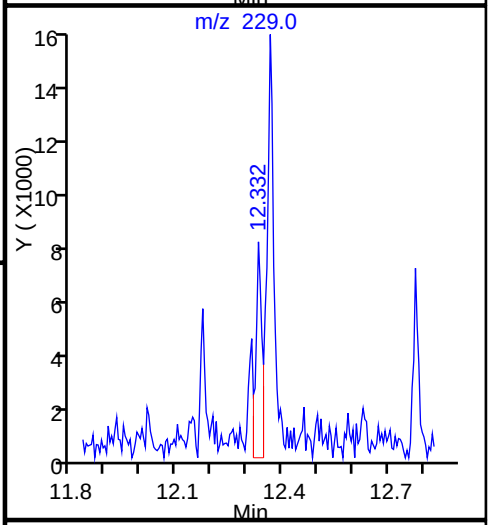
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

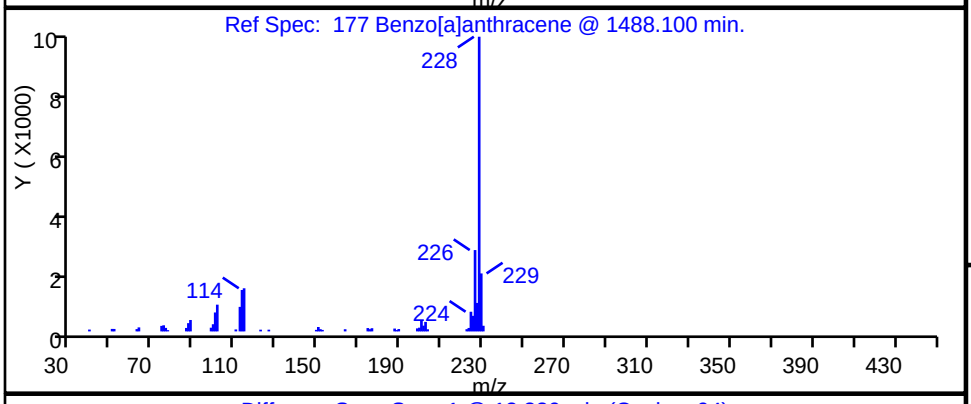
177 Benzo[a]anthracene, CAS: 56-55-3

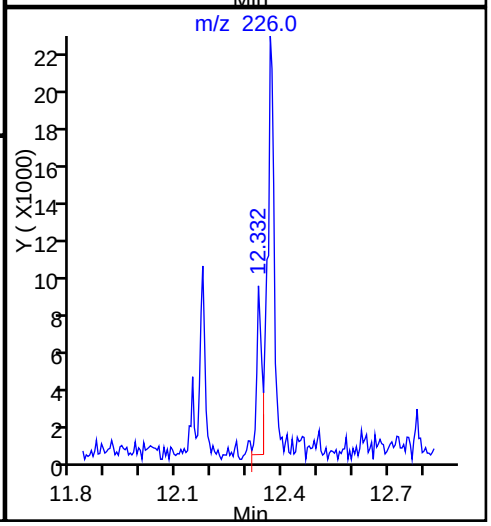


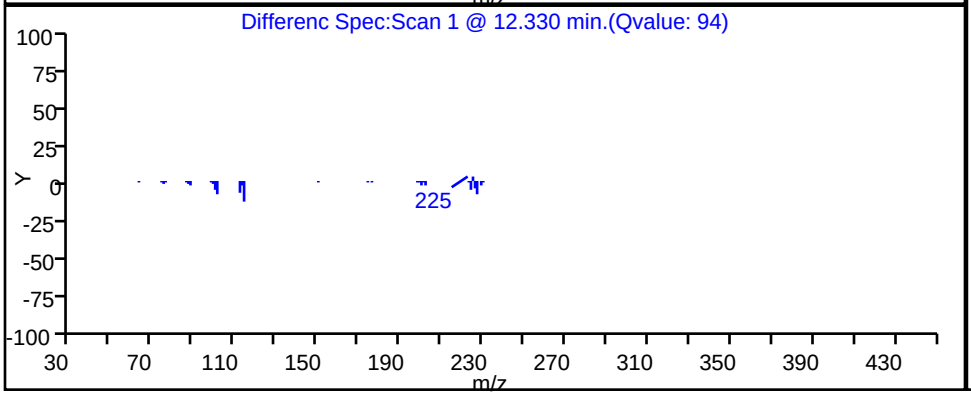












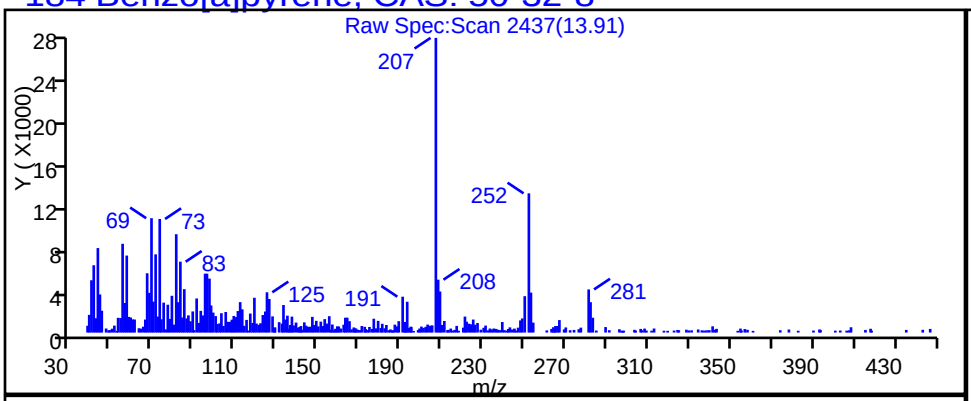
Report Date: 24-Aug-2015 09:27:01 Chrom Revision: 2.2 23-Jul-2015 08:26:08

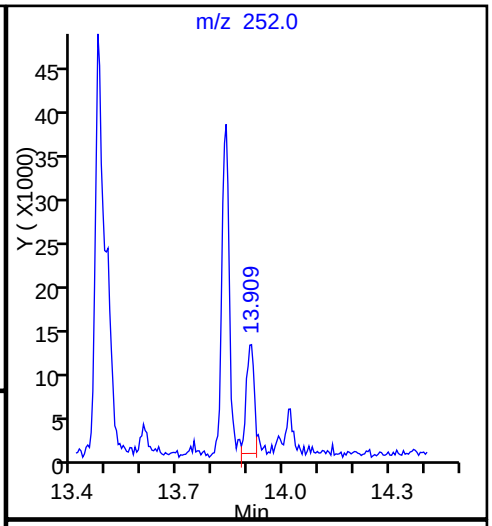
TestAmerica Canton

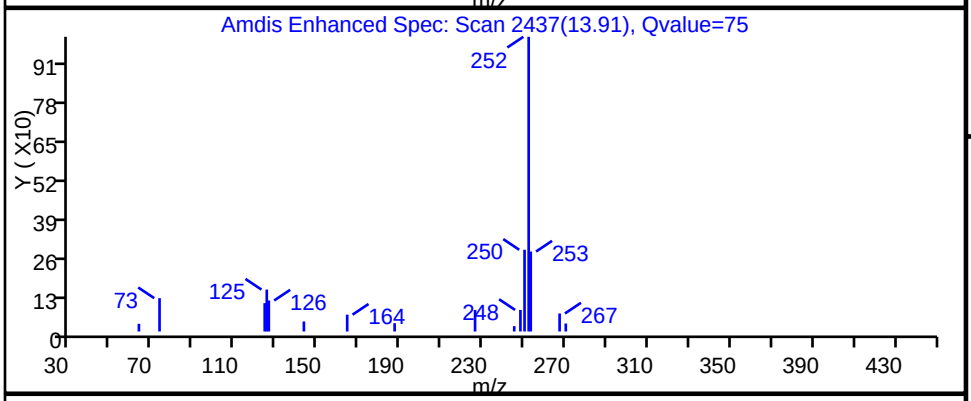
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

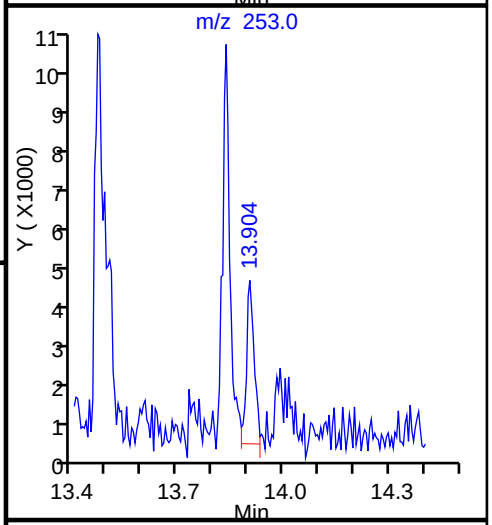
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

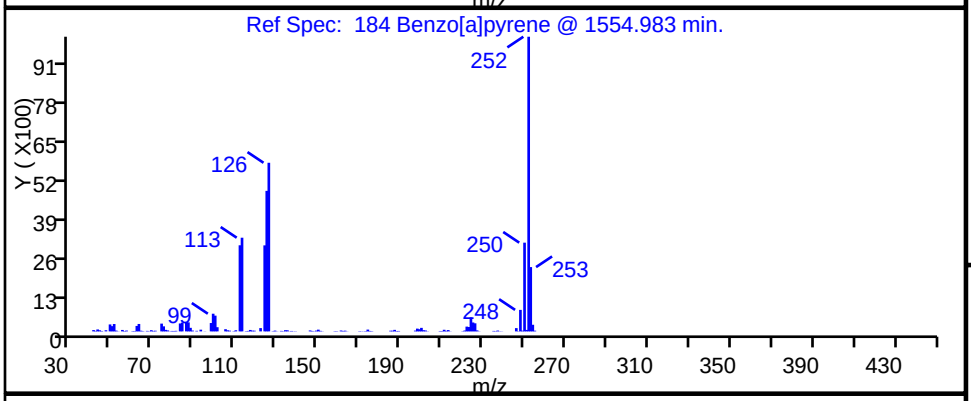
184 Benzo[a]pyrene, CAS: 50-32-8

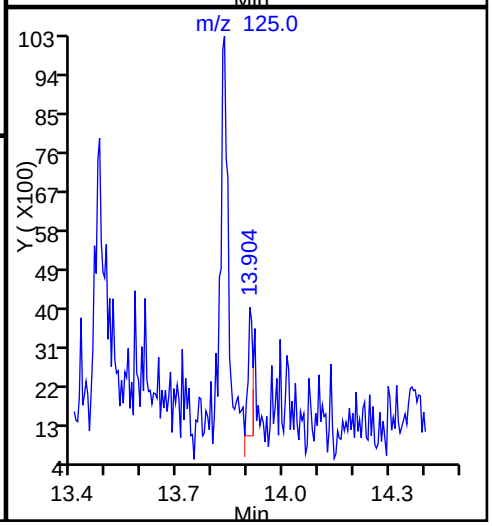


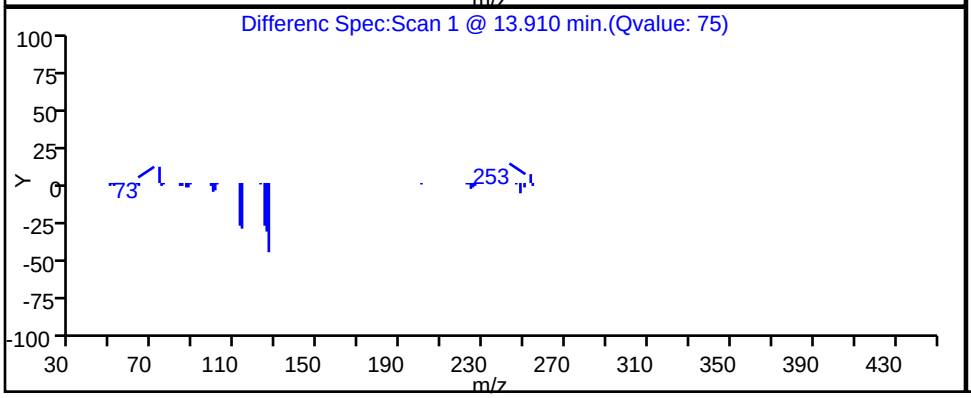












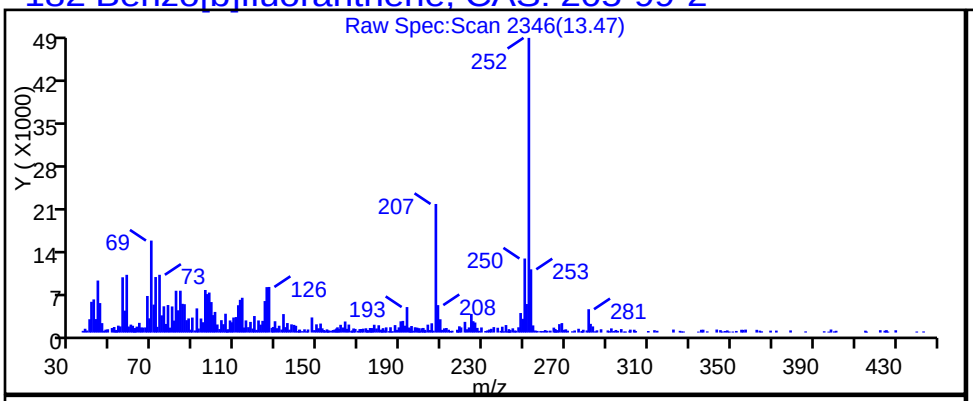
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

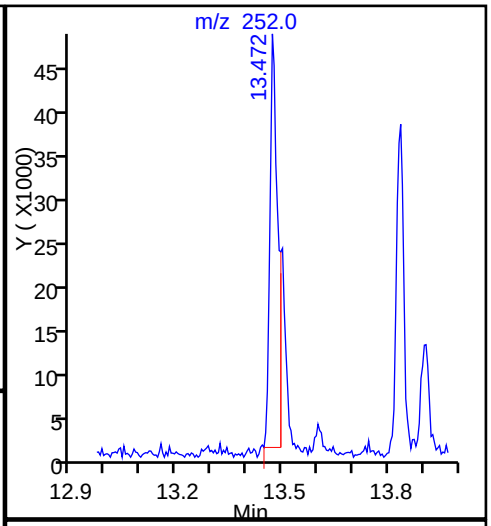
TestAmerica Canton

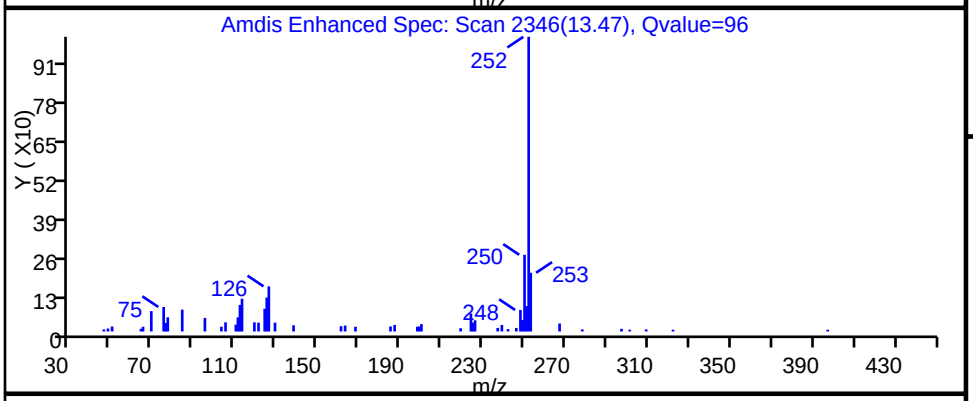
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

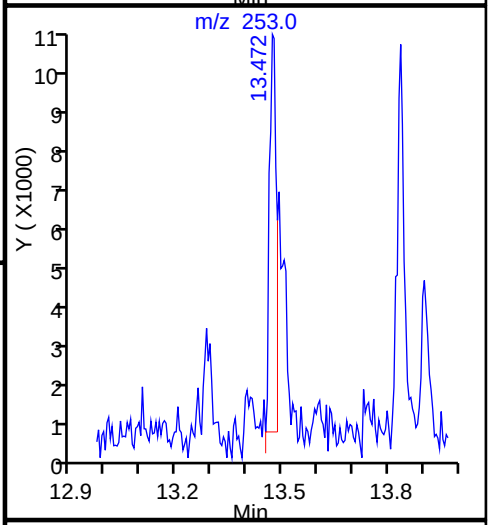
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

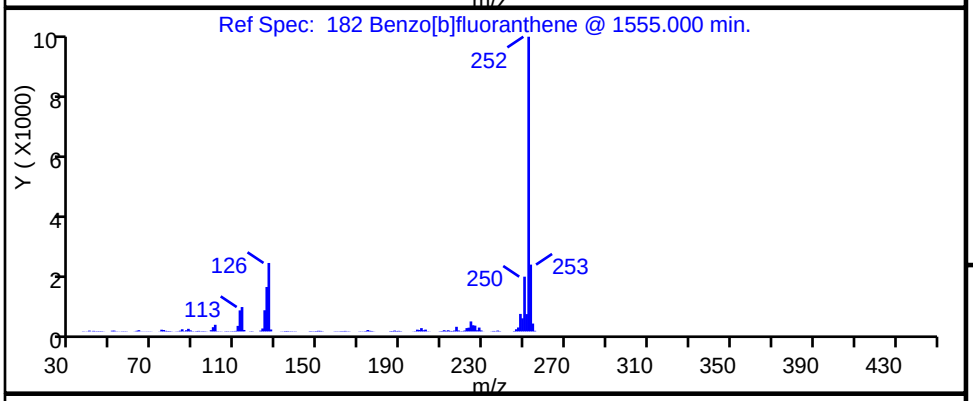
182 Benzo[b]fluoranthene, CAS: 205-99-2

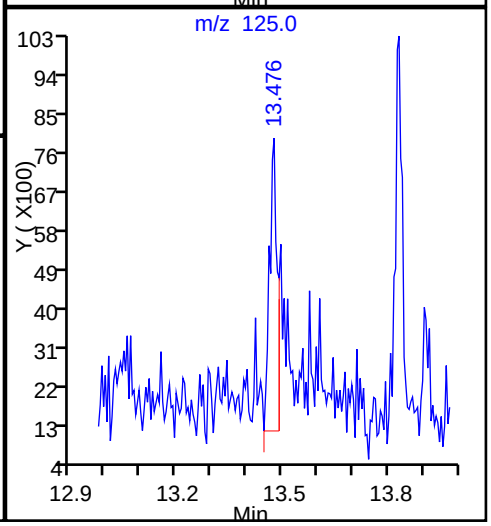


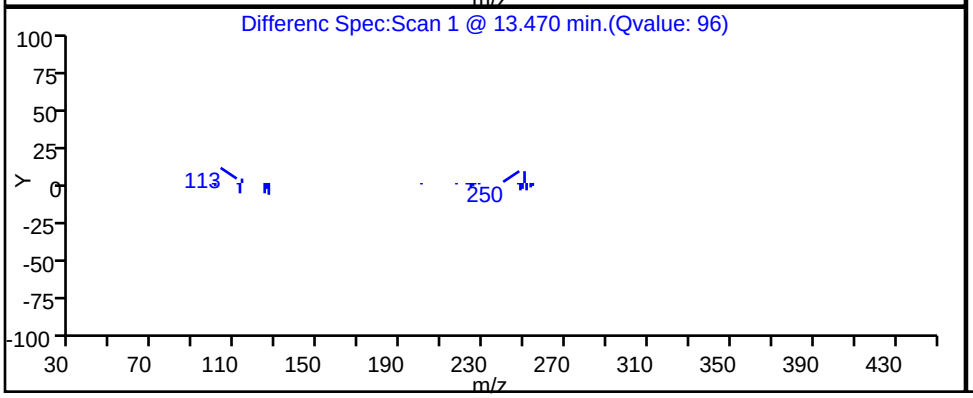












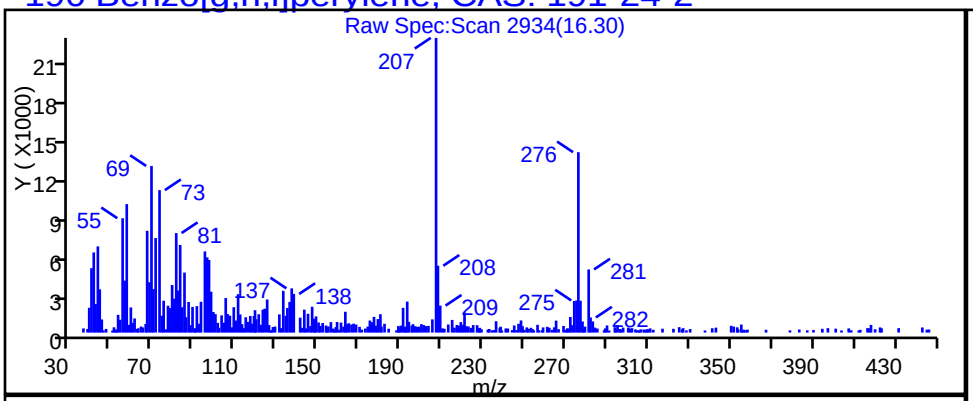
Report Date: 24-Aug-2015 09:27:01 Chrom Revision: 2.2 23-Jul-2015 08:26:08

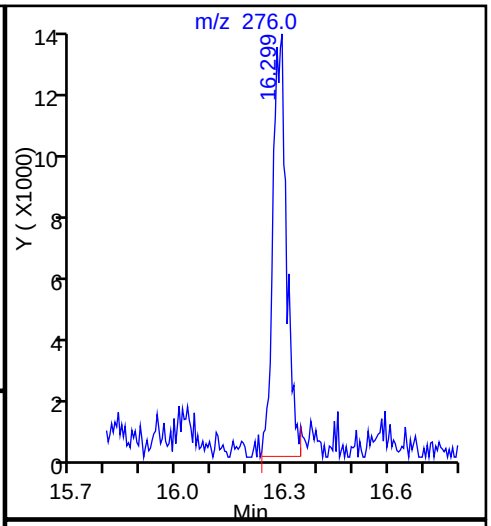
TestAmerica Canton

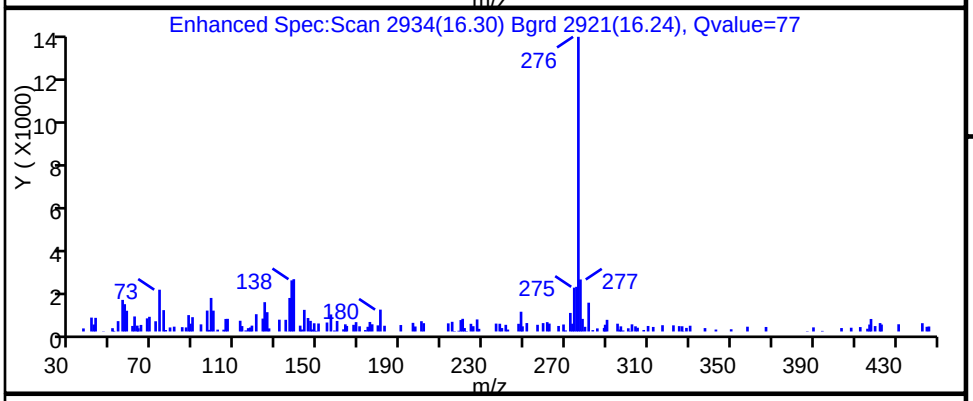
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

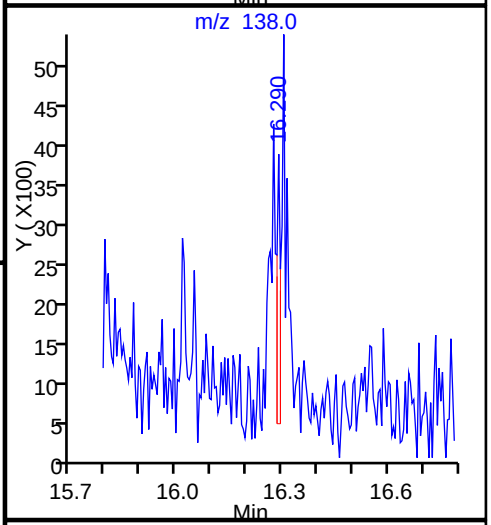
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

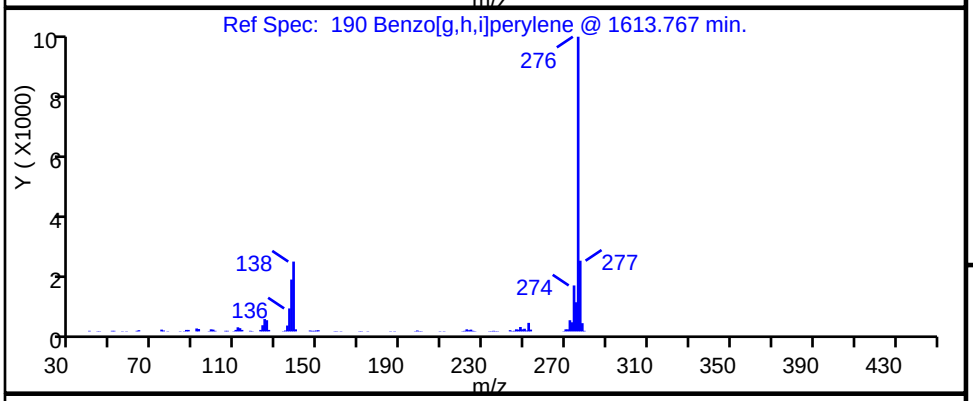
190 Benzo[g,h,i]perylene, CAS: 191-24-2

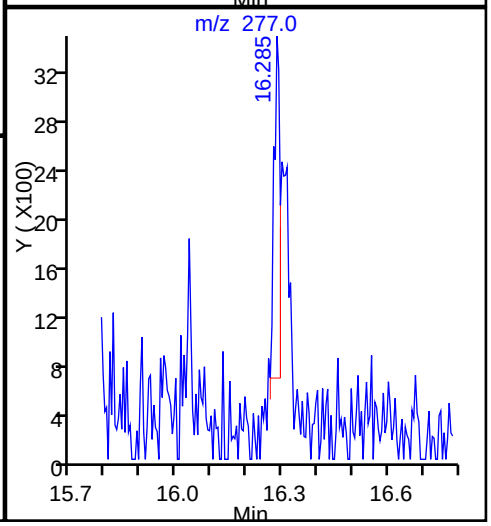


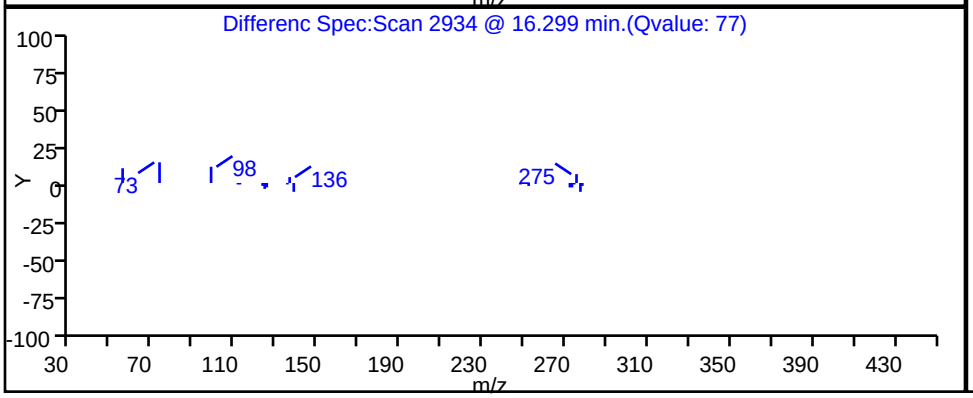












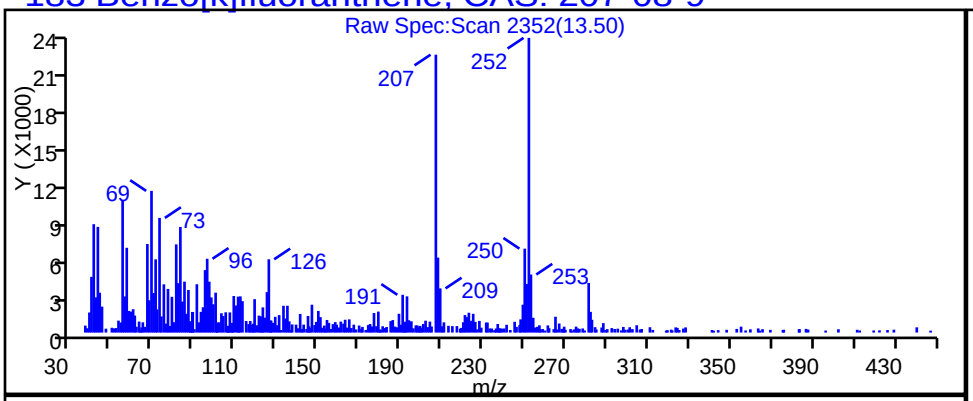
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

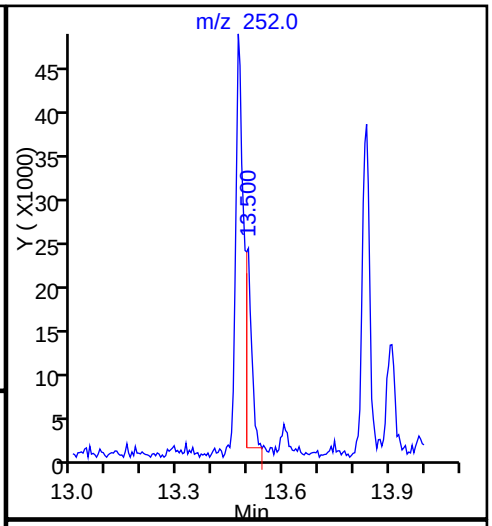
TestAmerica Canton

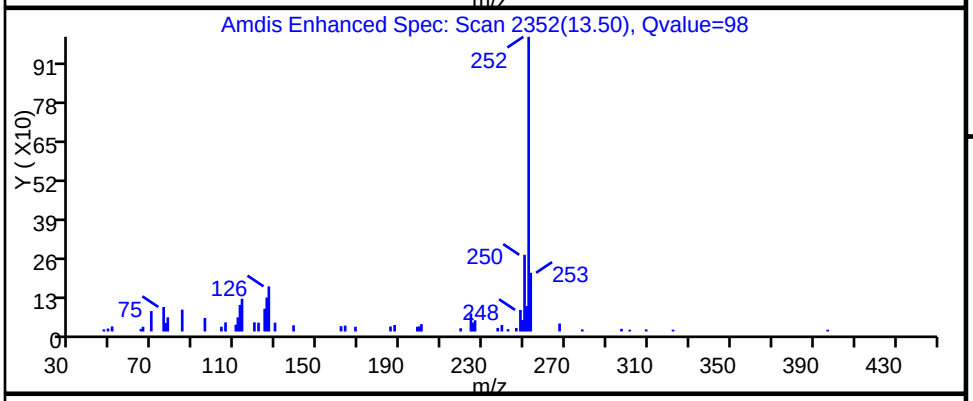
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

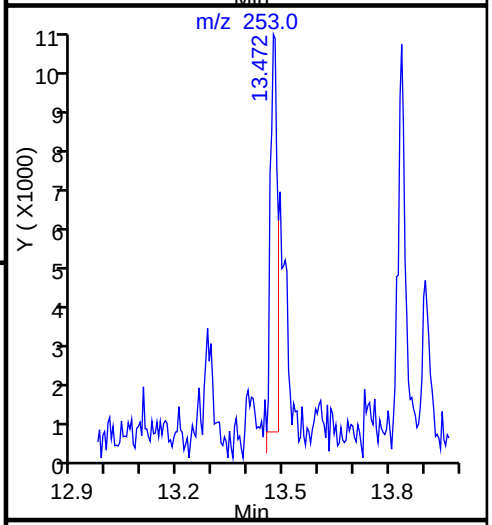
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

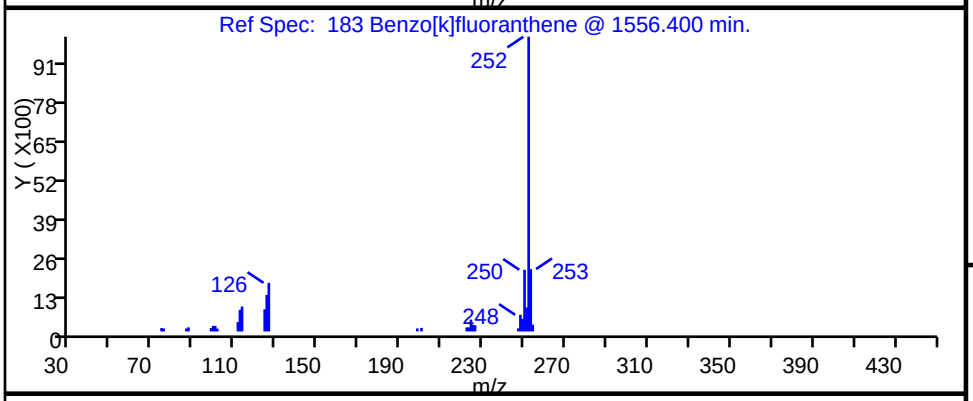
183 Benzo[k]fluoranthene, CAS: 207-08-9

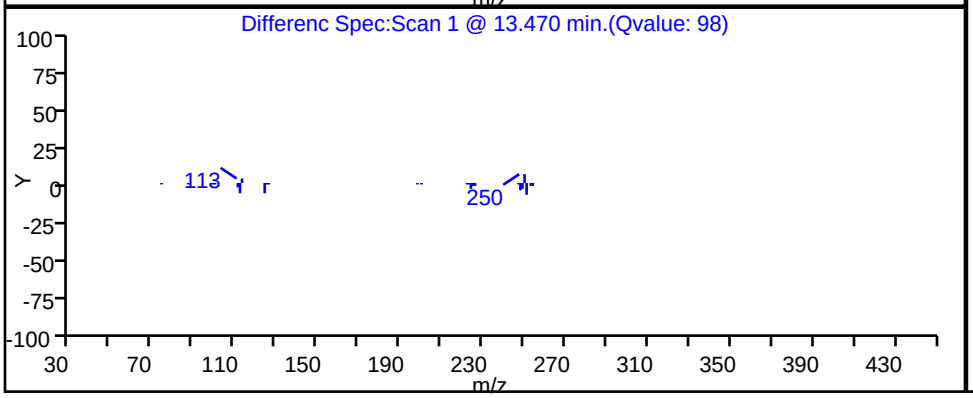


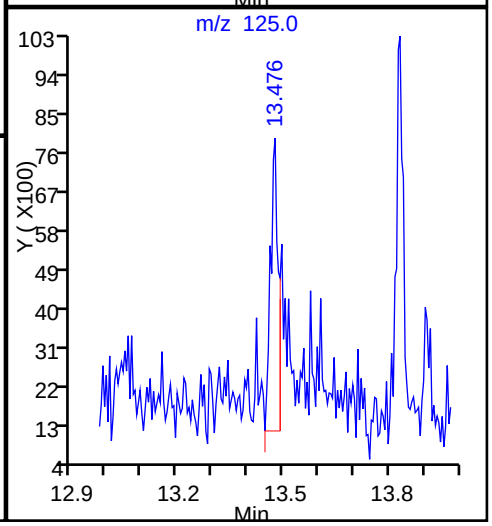












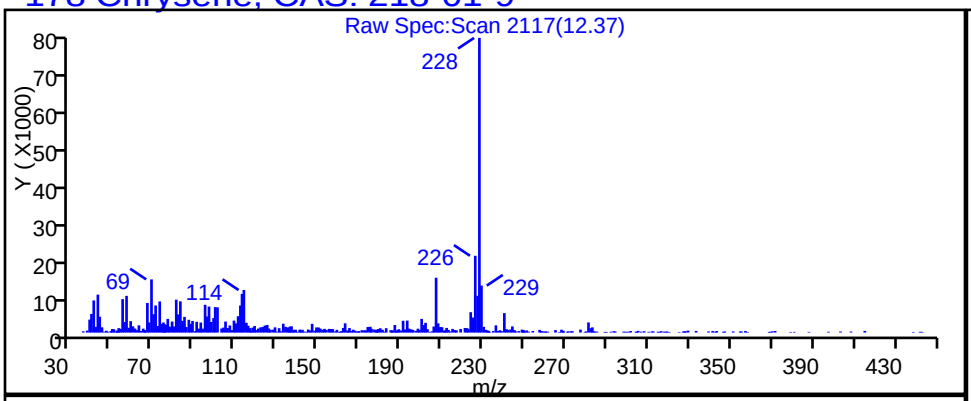
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

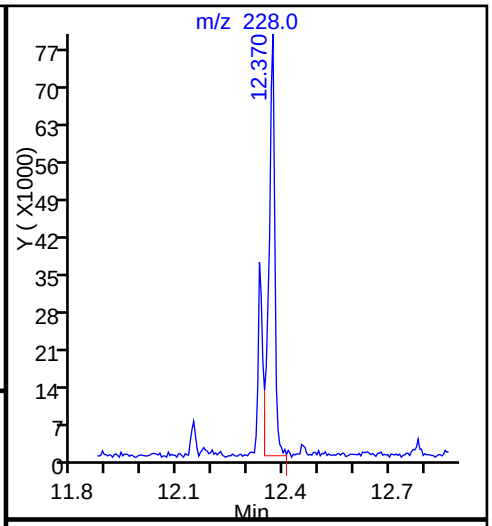
TestAmerica Canton

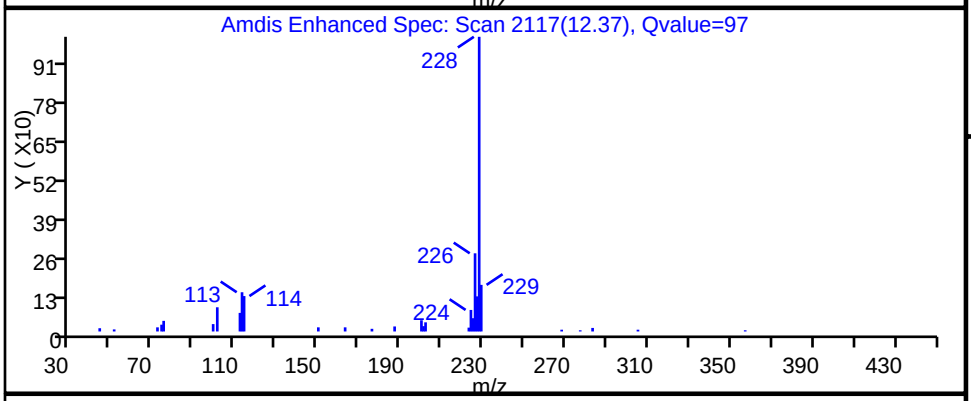
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

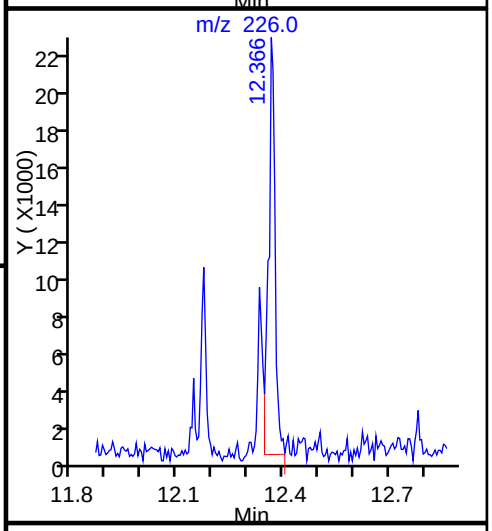
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

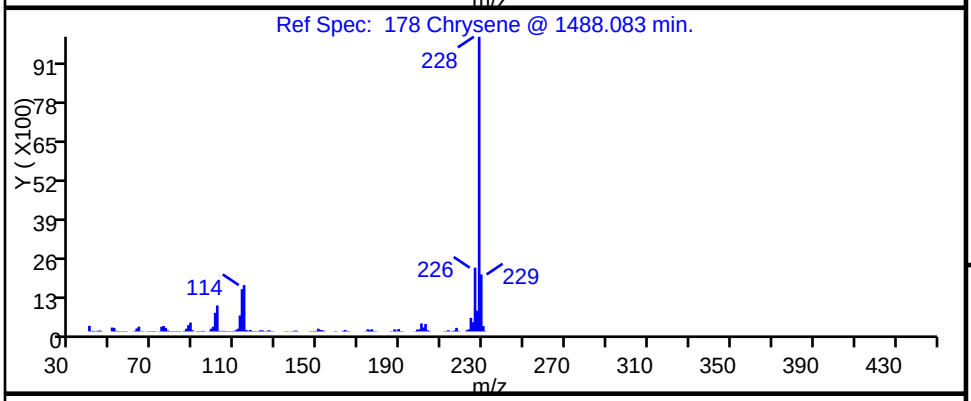
178 Chrysene, CAS: 218-01-9

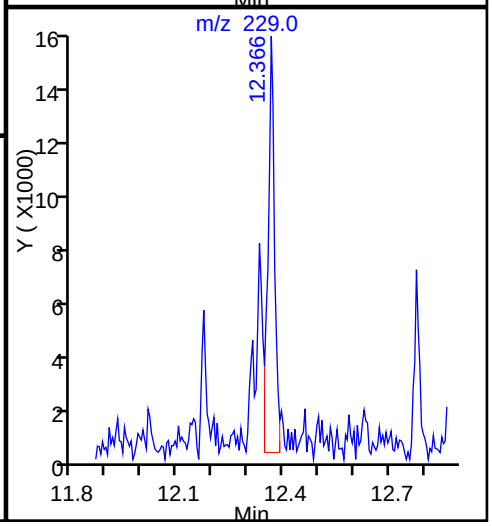


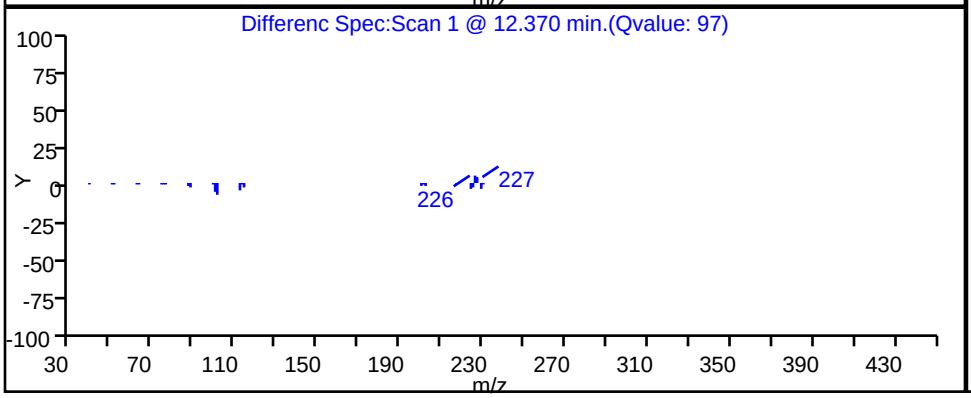












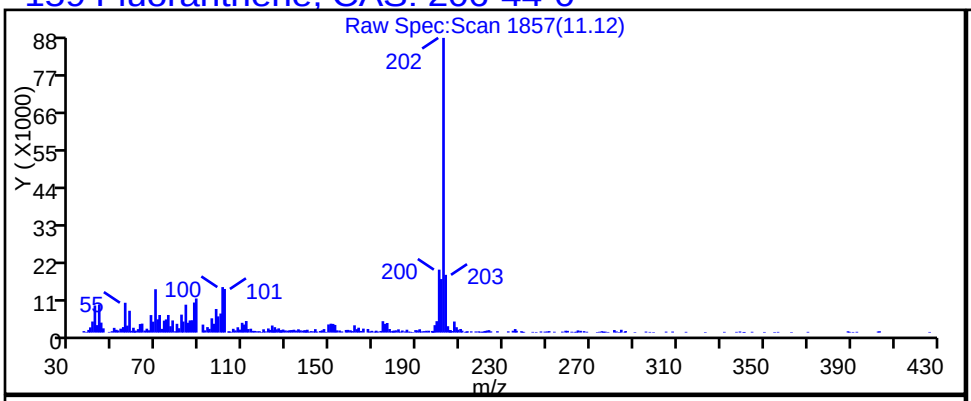
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

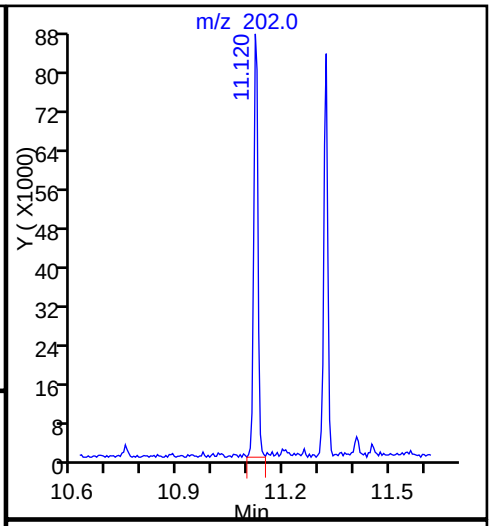
TestAmerica Canton

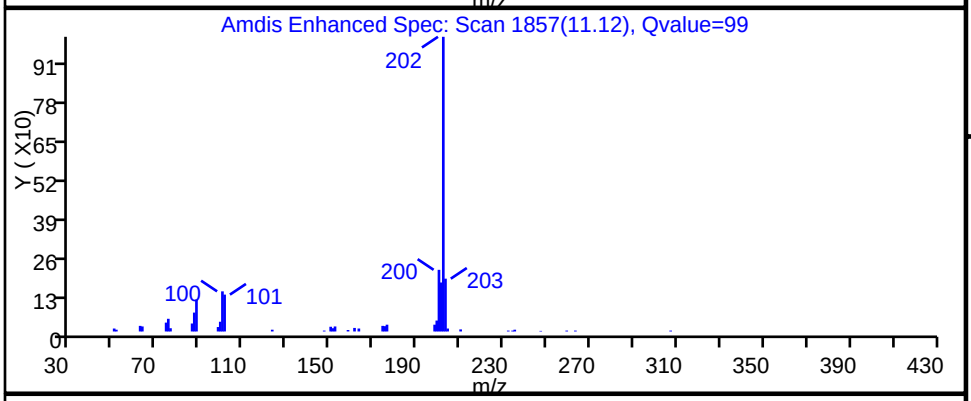
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

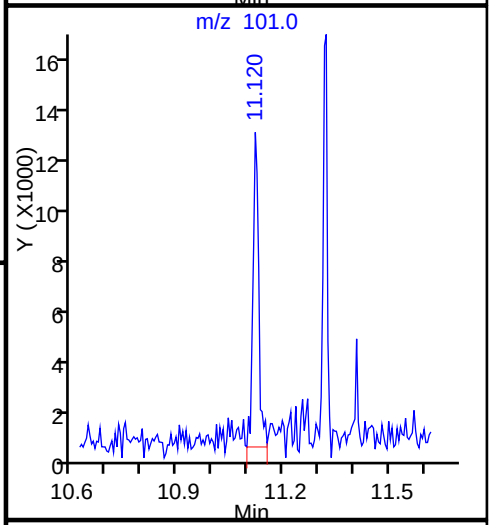
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

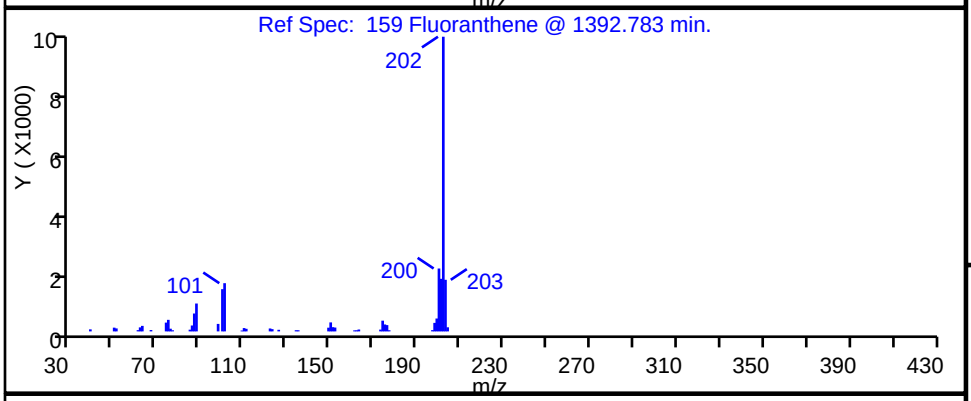
159 Fluoranthene, CAS: 206-44-0

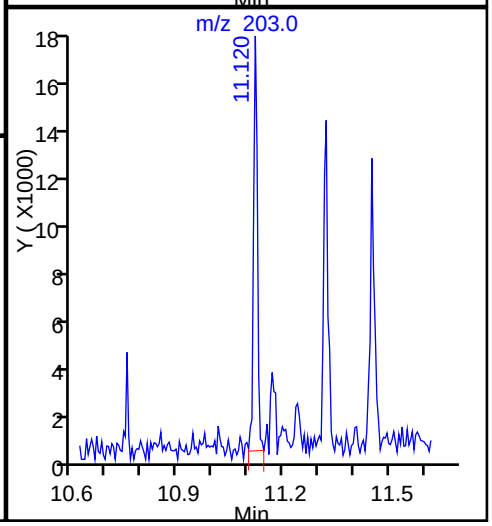


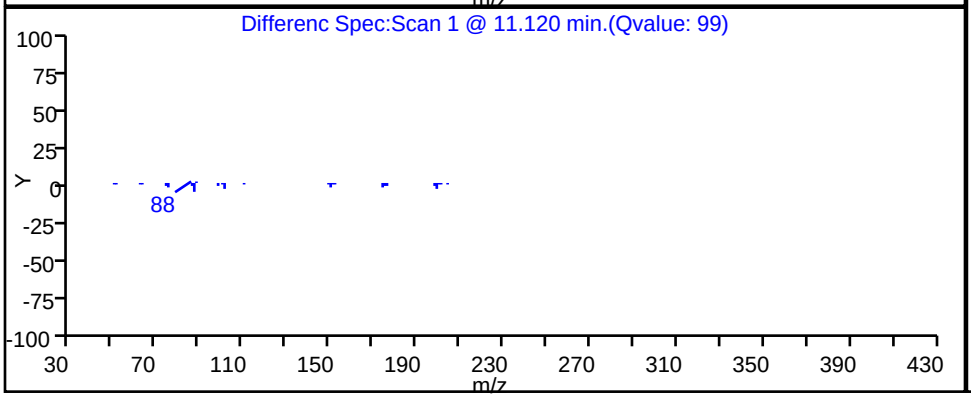












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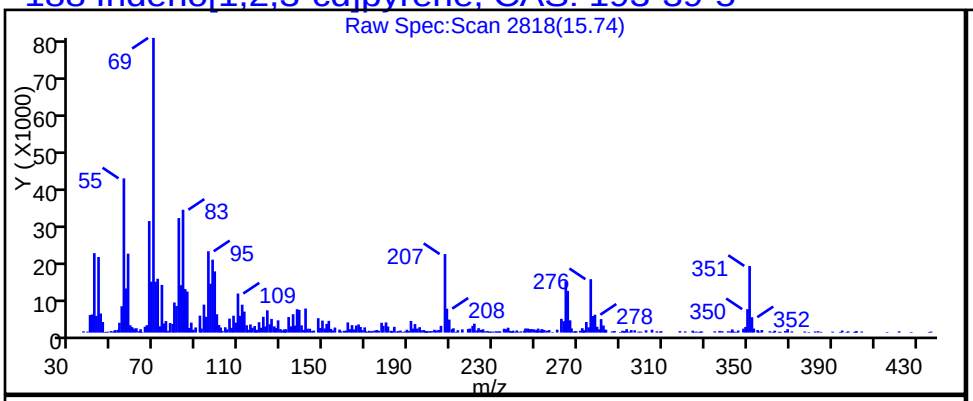
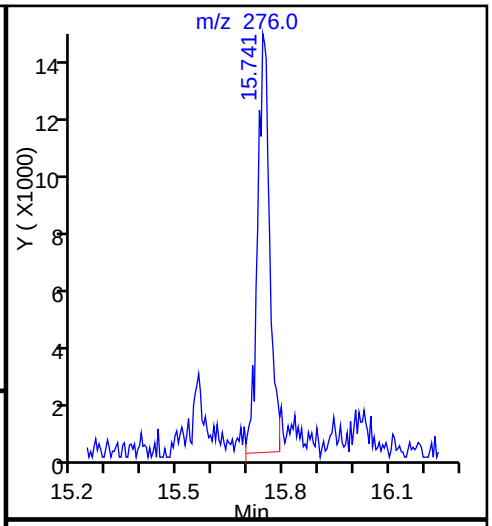
TestAmerica Canton

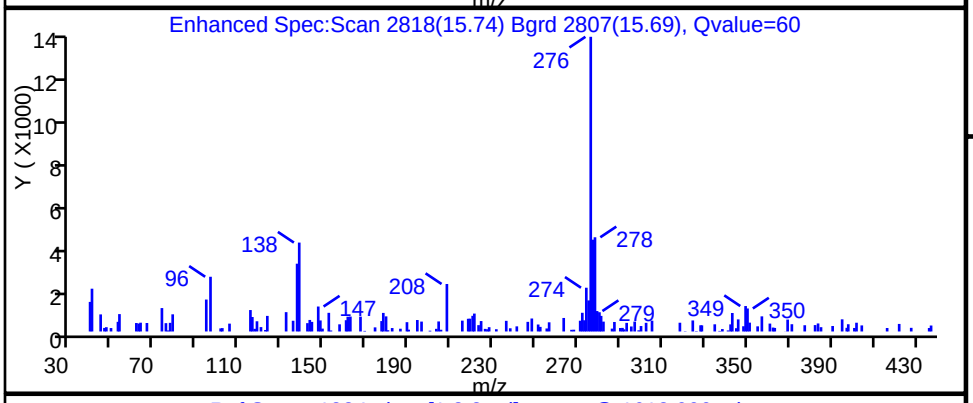
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

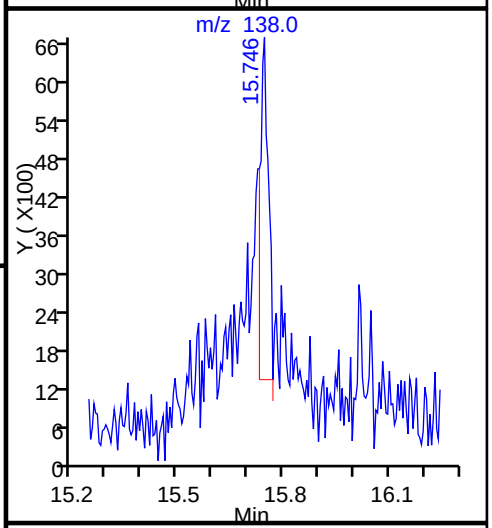
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

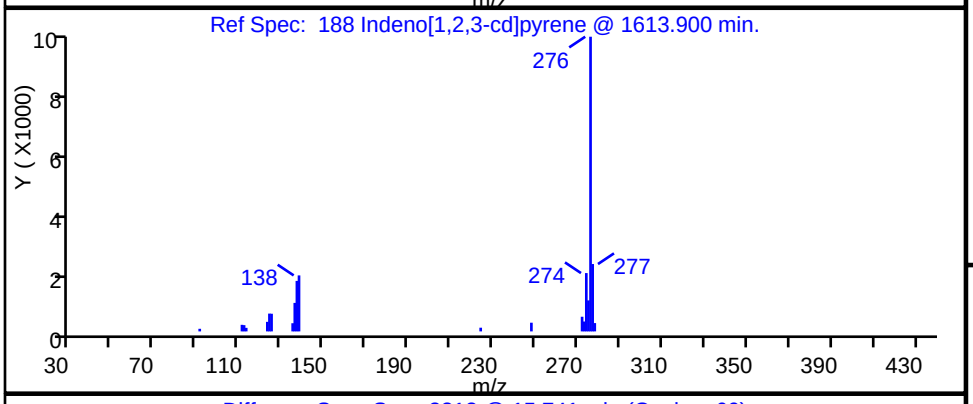
188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

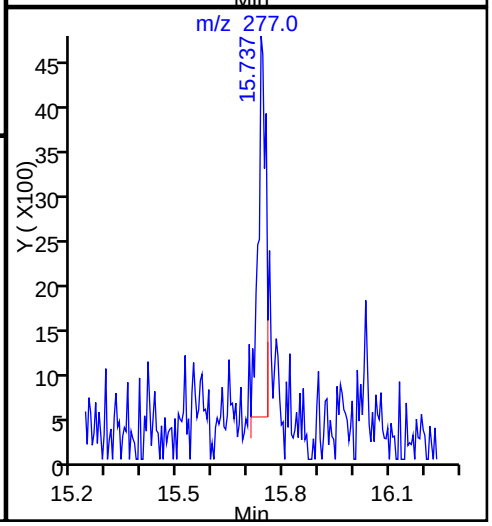


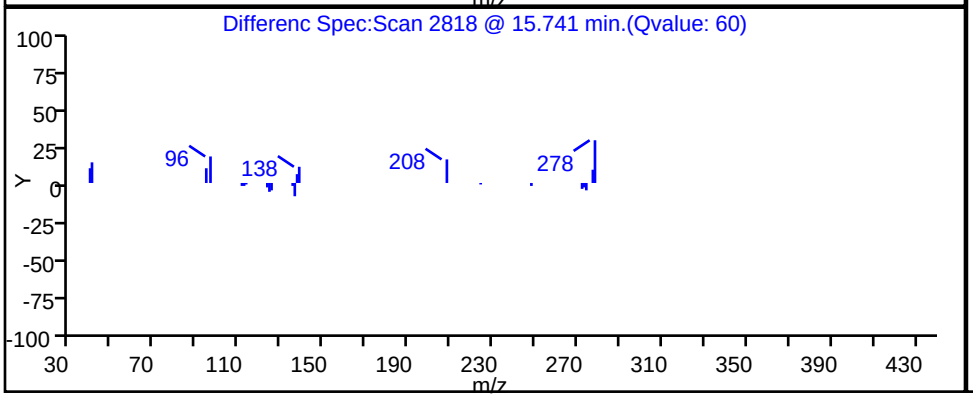












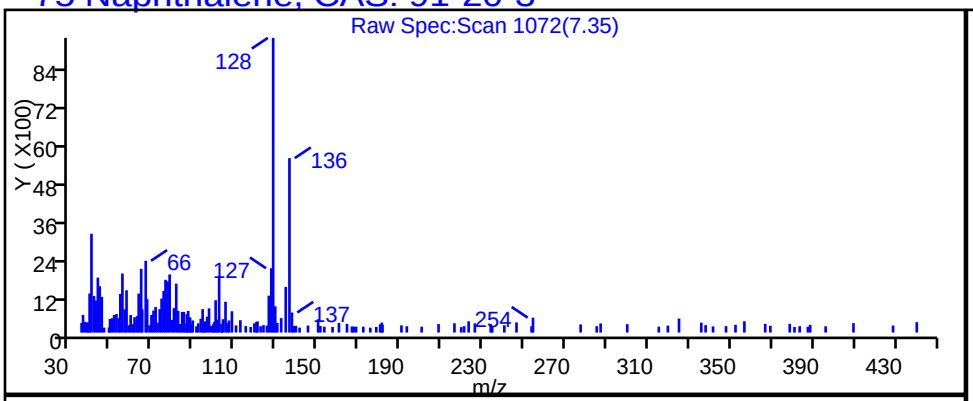
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

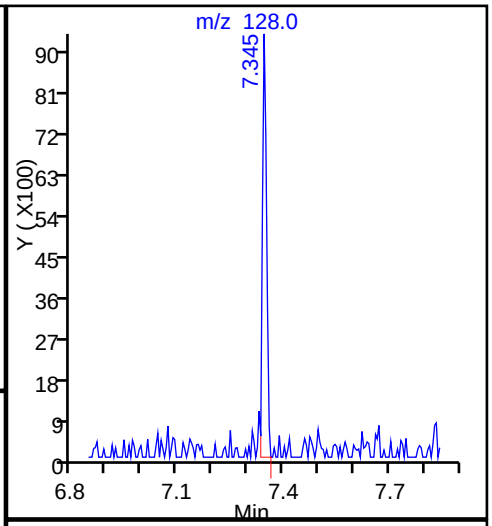
TestAmerica Canton

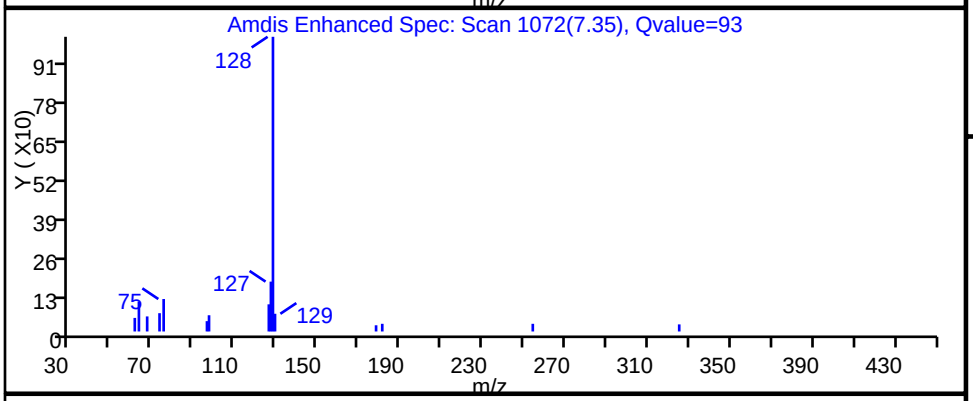
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

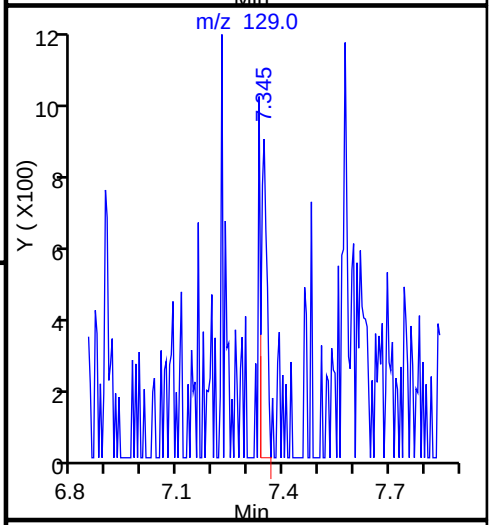
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

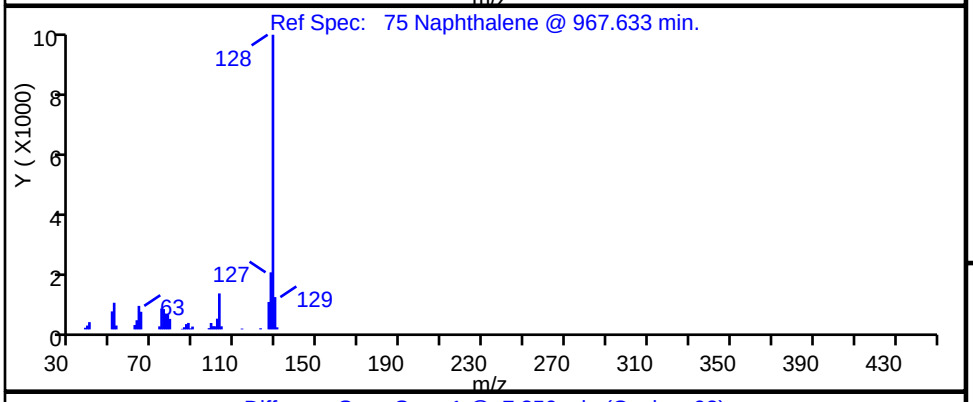
75 Naphthalene, CAS: 91-20-3

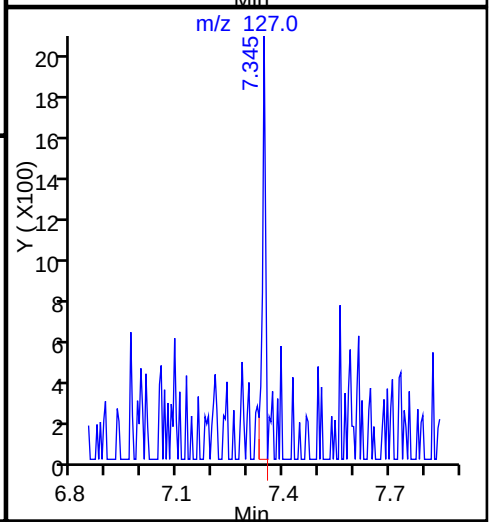


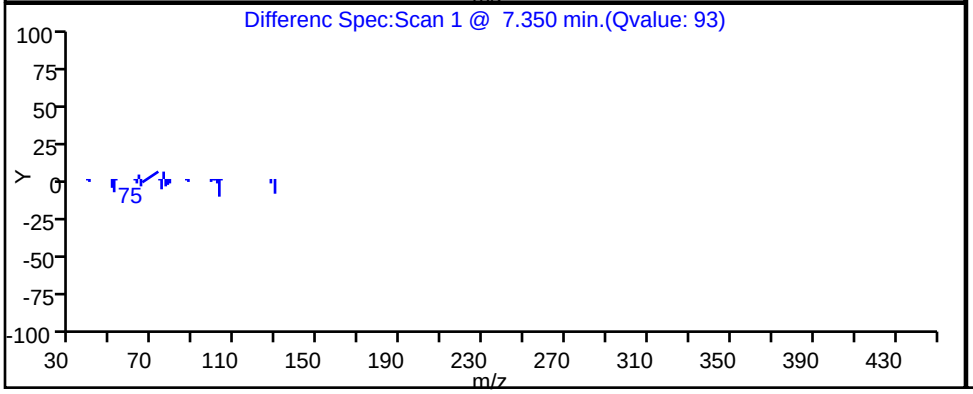












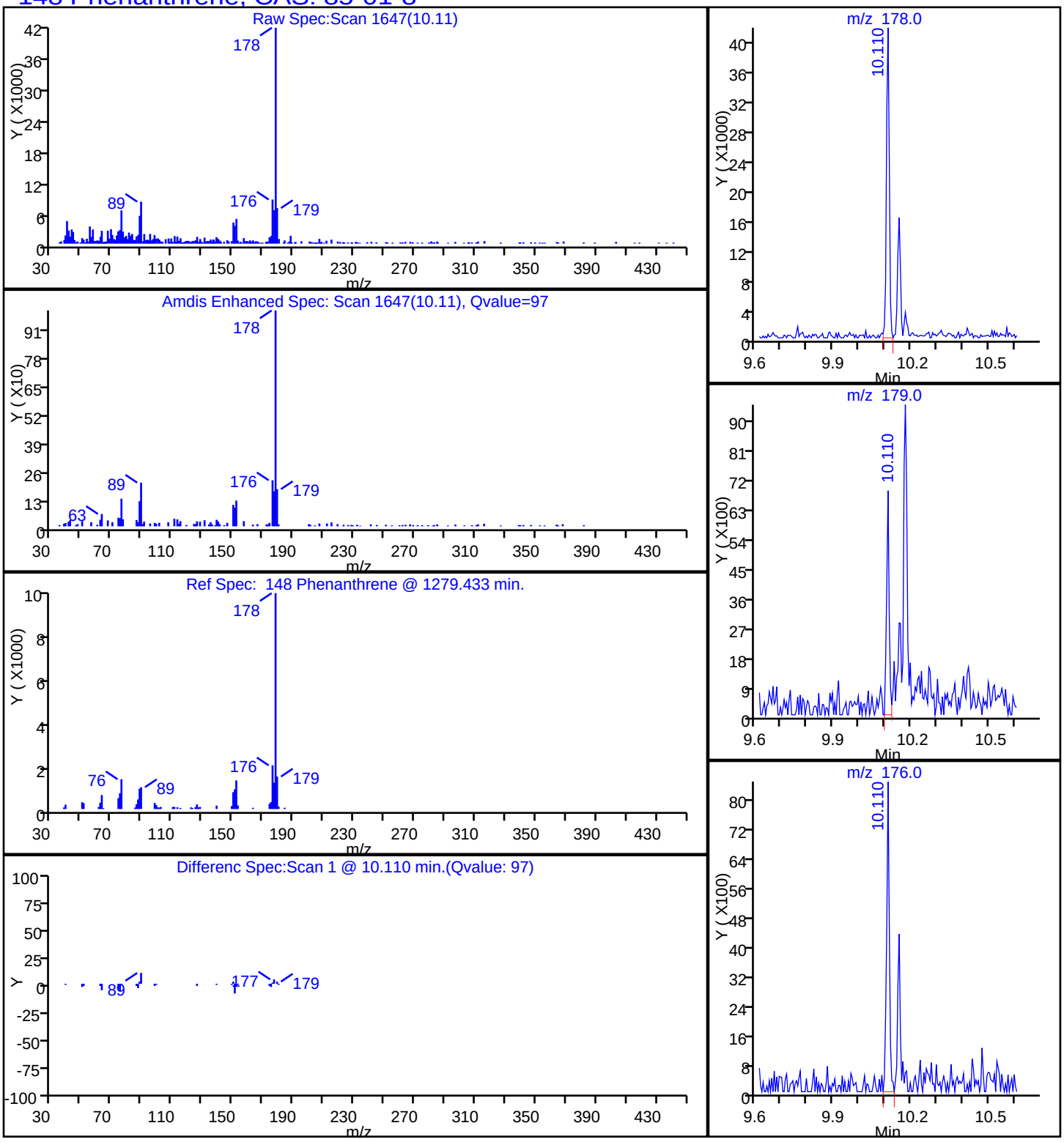
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

148 Phenanthrene, CAS: 85-01-8



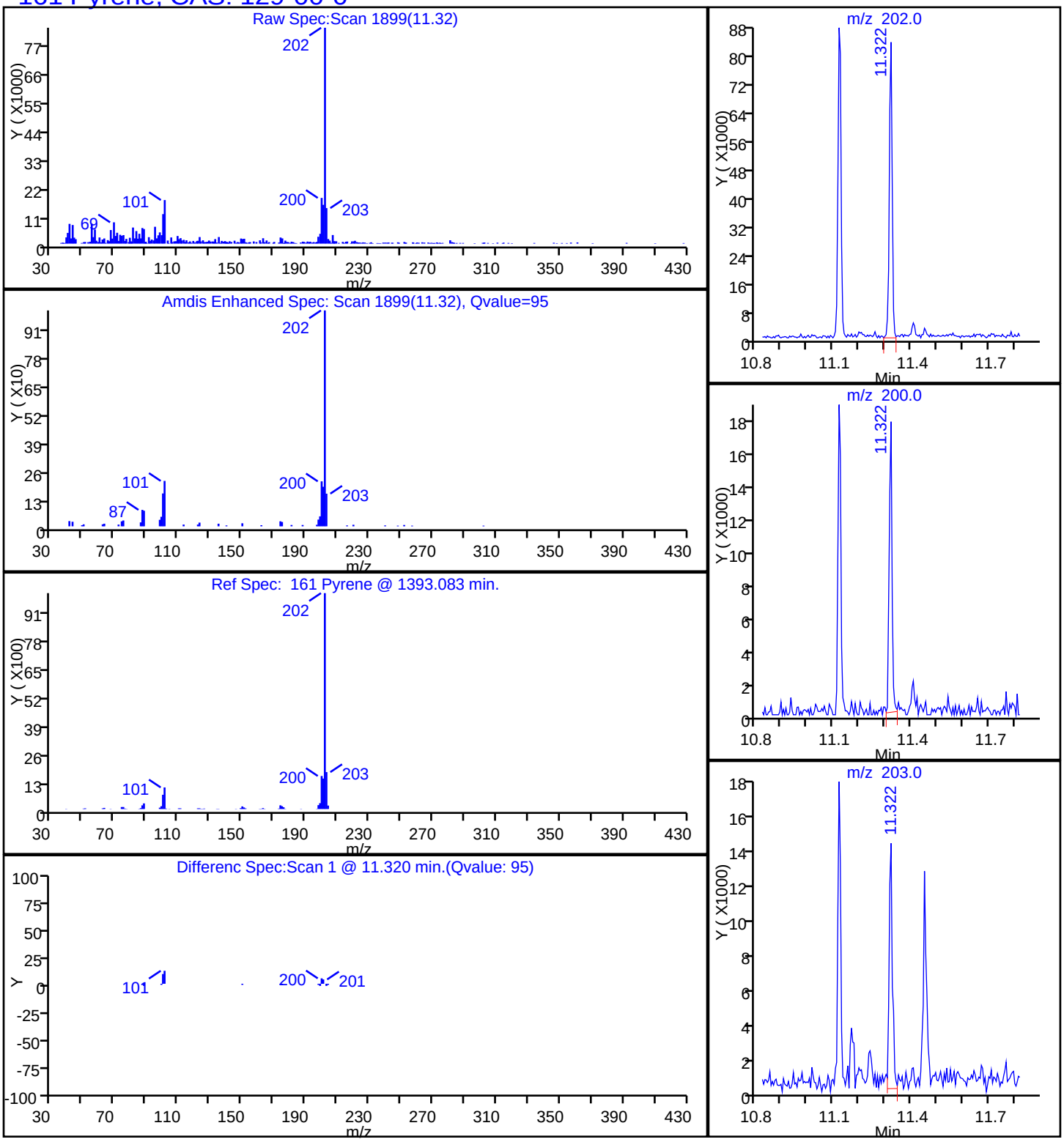
Report Date: 24-Aug-2015 09:27:00 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D

Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

161 Pyrene, CAS: 129-00-0



Manual Integration/User Assign Peak Report

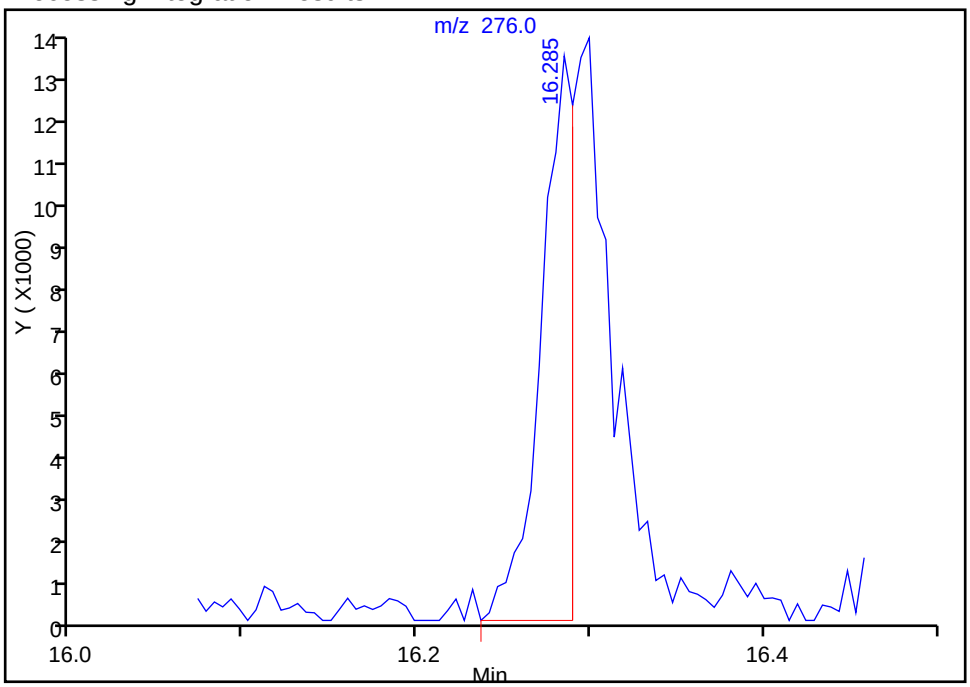
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D				
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

190 Benzo[g,h,i]perylene, CAS: 191-24-2

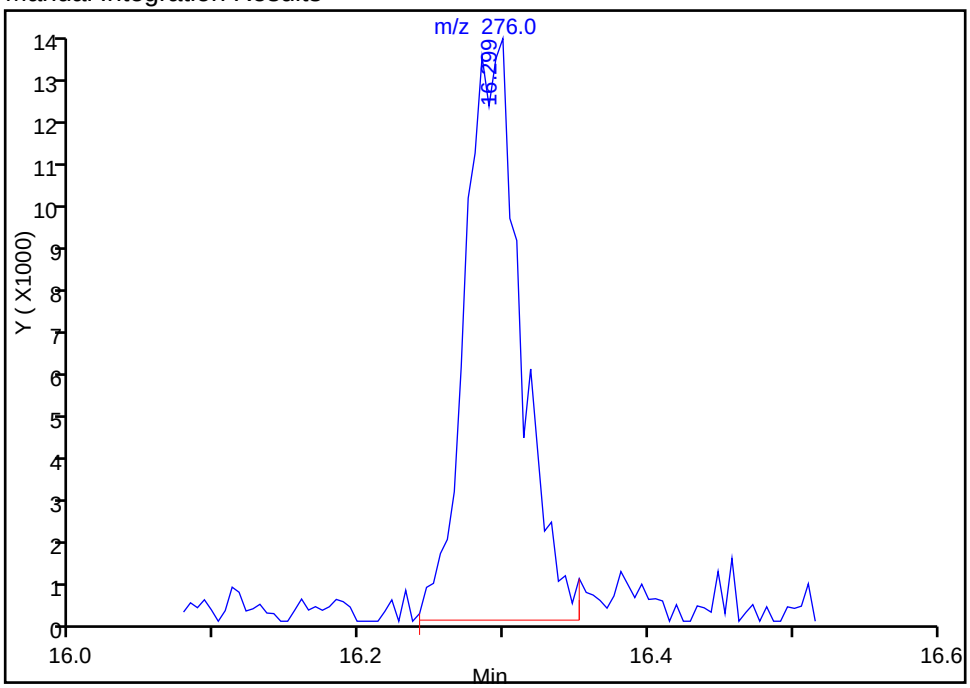
Processing Integration Results

RT: 16.28
Area: 17394
Amount: 0.136593
Amount Units: ng/ul



Manual Integration Results

RT: 16.30
Area: 36538
Amount: 0.286929
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:47:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

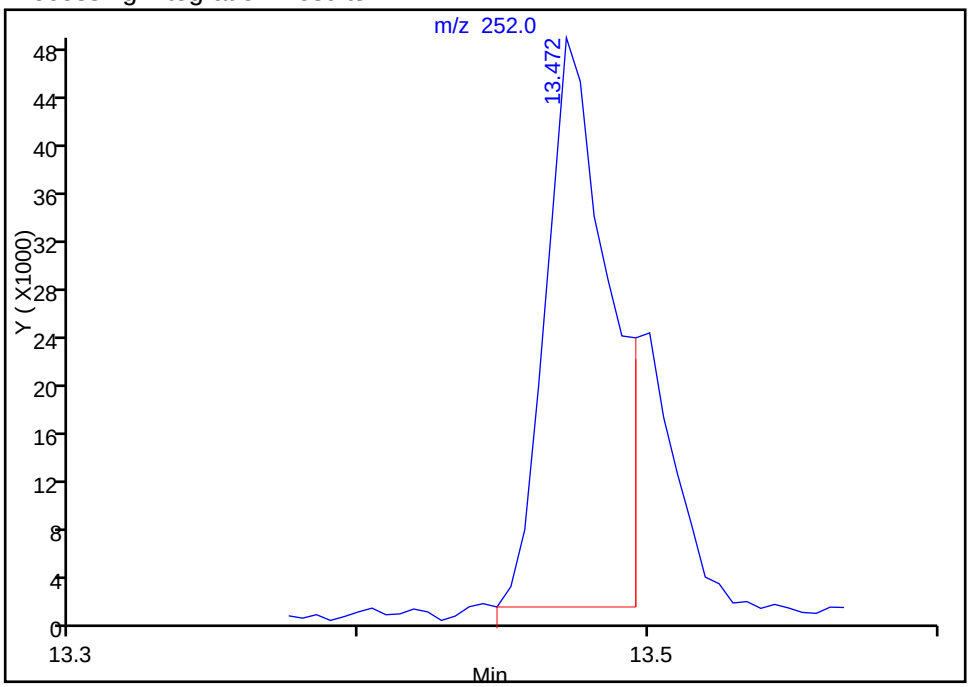
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822019.D				
Injection Date:	22-Aug-2015 17:26:30	Instrument ID:	A4HP9		
Lims ID:	240-54467-B-6-A	Lab Sample ID:	240-54467-6		
Client ID:	D-VB-F-19-2				
Operator ID:	001710	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

183 Benzo[k]fluoranthene, CAS: 207-08-9

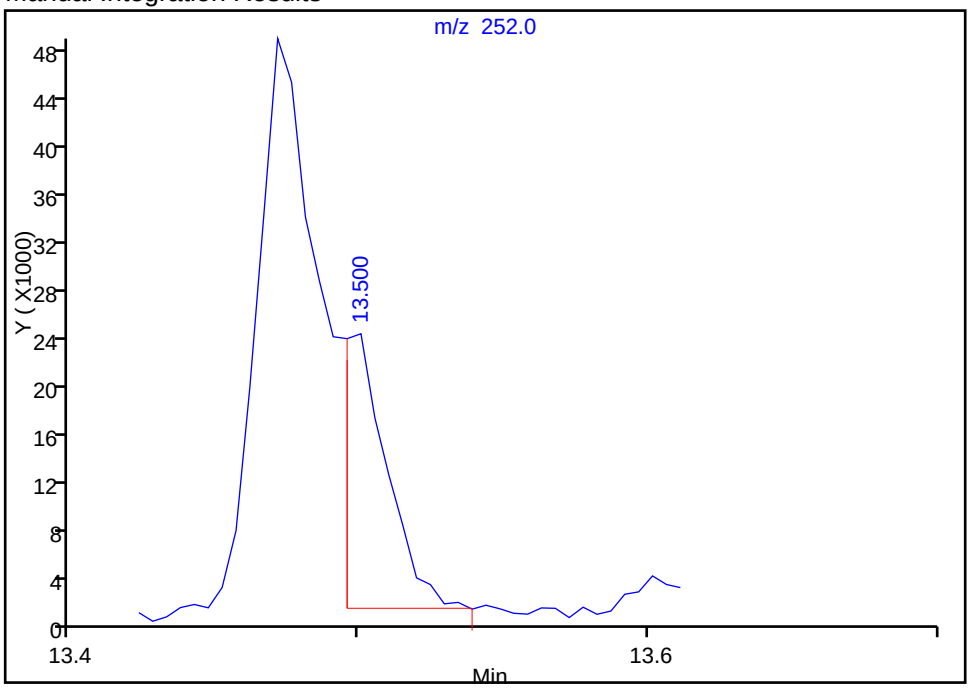
Processing Integration Results

RT: 13.47
Area: 72913
Amount: 0.465441
Amount Units: ng/ul



Manual Integration Results

RT: 13.50
Area: 24162
Amount: 0.154238
Amount Units: ng/ul



Reviewer: ulmanm, 24-Aug-2015 08:47:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808002.D
Lims ID: std5 lst1
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 08-Aug-2015 15:32:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-002
Misc. Info.: STD5 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:22 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 08-Aug-2015 16:06:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.379	6.379	0.000	94	109825	4.00	4.00	
* 2 Naphthalene-d8	136	7.490	7.490	0.000	98	448977	4.00	4.00	
* 3 Acenaphthene-d10	164	8.995	8.995	0.000	92	254631	4.00	4.00	
* 4 Phenanthrene-d10	188	10.264	10.264	0.000	96	393152	4.00	4.00	
* 5 Chrysene-d12	240	12.558	12.558	0.000	97	474956	4.00	4.00	
* 6 Perylene-d12	264	14.333	14.333	0.000	98	413496	4.00	4.00	
$ 7 2-Fluorophenol	112	5.162	5.162	0.000	95	246277	5.00	5.12	
$ 8 Phenol-d5	99	6.009	6.009	0.000	97	356600	5.00	5.25	
$ 9 Nitrobenzene-d5	82	6.850	6.850	0.000	83	420480	5.00	4.84	
$ 10 2-Fluorobiphenyl (Surr)	172	8.394	8.394	0.000	98	399288	5.00	4.80	
$ 11 2,4,6-Tribromophenol	330	9.663	9.663	0.000	79	44194	5.00	5.34	
$ 12 Terphenyl-d14	244	11.587	11.587	0.000	98	428610	5.00	4.90	
25 1,4-Dioxane	88	3.114	3.114	0.000	85	126971	5.00	4.69	M
26 N-Nitrosodimethylamine	74	3.580	3.580	0.000	85	227788	5.00	4.90	M
27 Pyridine	79	3.643	3.643	0.000	89	400630	5.00	4.98	M
41 Benzaldehyde	77	5.980	5.980	0.000	87	658809	10.0	10.3	
43 Phenol	94	6.023	6.023	0.000	95	397911	5.00	5.22	
44 Aniline	93	6.071	6.071	0.000	96	515980	5.00	5.25	
69 Bis(2-chloroethyl)ether	93	6.110	6.110	0.000	97	353959	5.00	5.14	
46 2-Chlorophenol	128	6.191	6.191	0.000	88	215606	5.00	5.16	
243 n-Decane	57	6.220	6.220	0.000	96	294584	5.00	5.37	
47 1,3-Dichlorobenzene	146	6.331	6.331	0.000	88	233158	5.00	5.21	
48 1,4-Dichlorobenzene	146	6.393	6.393	0.000	83	229456	5.00	5.02	
49 Benzyl alcohol	108	6.470	6.470	0.000	83	165174	5.00	4.88	
50 1,2-Dichlorobenzene	146	6.533	6.533	0.000	86	221813	5.00	5.11	
51 2-Methylphenol	108	6.562	6.562	0.000	91	244222	5.00	5.21	
53 2,2'-oxybis[1-chloropropan	45	6.595	6.595	0.000	98	266080	5.00	5.14	
52 Indene	115	6.610	6.610	0.000	88	902569	10.0	10.3	
21 3 & 4 Methylphenol	108	6.687	6.687	0.000	94	255293	5.00	5.17	
57 N-Nitrosodi-n-propylamine	70	6.701	6.701	0.000	98	285919	5.00	5.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.711	6.711	0.000	88	397661	5.00	5.14	
61 Hexachloroethane	117	6.840	6.840	0.000	88	115168	5.00	5.14	
62 Nitrobenzene	77	6.865	6.865	0.000	78	429634	5.00	4.94	
64 Isophorone	82	7.066	7.066	0.000	97	686479	5.00	4.99	
66 2-Nitrophenol	139	7.148	7.148	0.000	78	102806	5.00	5.10	
65 2,4-Dimethylphenol	107	7.153	7.153	0.000	93	273113	5.00	4.97	
71 Benzoic acid	122	7.192	7.192	0.000	82	250489	10.0	10.2	M
70 Bis(2-chloroethoxy)methane	93	7.230	7.230	0.000	97	379807	5.00	5.01	
73 2,4-Dichlorophenol	162	7.350	7.350	0.000	90	168722	5.00	4.91	
74 1,2,4-Trichlorobenzene	180	7.437	7.437	0.000	88	182005	5.00	4.98	
75 Naphthalene	128	7.509	7.509	0.000	97	636998	5.00	4.96	
76 4-Chloroaniline	127	7.528	7.528	0.000	88	292166	5.00	5.28	
77 2,6-Dichlorophenol	162	7.547	7.547	0.000	86	162413	5.00	4.88	
79 Hexachlorobutadiene	225	7.615	7.615	0.000	94	112094	5.00	4.95	
84 Caprolactam	113	7.797	7.797	0.000	86	142931	10.0	9.20	
86 4-Chloro-3-methylphenol	107	7.918	7.918	0.000	85	236131	5.00	5.03	
87 2-Methylnaphthalene	142	8.096	8.096	0.000	90	395021	5.00	5.02	
88 1-Methylnaphthalene	142	8.187	8.187	0.000	90	339675	5.00	4.91	
89 Hexachlorocyclopentadiene	237	8.240	8.240	0.000	93	105526	5.00	5.00	
91 1,2,4,5-Tetrachlorobenzene	216	8.245	8.245	0.000	94	177692	5.00	4.91	
92 2,4,6-Trichlorophenol	196	8.326	8.326	0.000	89	122851	5.00	5.15	
93 2,4,5-Trichlorophenol	196	8.360	8.360	0.000	90	127748	5.00	5.09	
98 1,1'-Biphenyl	154	8.485	8.485	0.000	97	461017	5.00	4.88	
100 2-Chloronaphthalene	162	8.519	8.519	0.000	98	366260	5.00	4.92	
102 2-Nitroaniline	65	8.576	8.576	0.000	70	193207	5.00	4.97	
105 Dimethyl phthalate	163	8.711	8.711	0.000	92	407874	5.00	5.06	
106 1,3-Dinitrobenzene	168	8.745	8.745	0.000	77	62669	5.00	4.99	
107 2,6-Dinitrotoluene	165	8.769	8.769	0.000	76	92898	5.00	5.20	
109 Acenaphthylene	152	8.875	8.875	0.000	98	585443	5.00	4.92	
110 3-Nitroaniline	138	8.918	8.918	0.000	84	98521	5.00	5.06	
111 2,4-Dinitrophenol	184	9.004	9.004	0.000	95	80255	10.0	9.19	
112 Acenaphthene	153	9.024	9.024	0.000	97	371031	5.00	4.85	
113 4-Nitrophenol	109	9.028	9.028	0.000	84	158751	10.0	9.79	
114 2,4-Dinitrotoluene	165	9.115	9.115	0.000	80	125683	5.00	5.28	
116 Dibenzofuran	168	9.168	9.168	0.000	96	512071	5.00	4.88	
119 2,3,4,6-Tetrachlorophenol	232	9.264	9.264	0.000	79	109169	5.00	5.45	
121 Diethyl phthalate	149	9.303	9.303	0.000	95	404042	5.00	5.10	
247 Hexadecane	57	9.307	9.307	0.000	96	329826	5.00	5.10	
123 4-Chlorophenyl phenyl ethe	204	9.432	9.432	0.000	91	197069	5.00	5.04	
125 4-Nitroaniline	138	9.437	9.437	0.000	73	79723	5.00	4.22	
126 Fluorene	166	9.461	9.461	0.000	99	430663	5.00	4.91	
128 4,6-Dinitro-2-methylphenol	198	9.471	9.471	0.000	94	108301	10.0	9.37	
131 N-Nitrosodiphenylamine	169	9.524	9.524	0.000	97	590399	10.0	10.6	
133 Azobenzene	77	9.567	9.567	0.000	93	809713	5.00	5.21	
132 1,2-Diphenylhydrazine	77	9.567	9.567	0.000	99	809713	5.00	5.21	
139 4-Bromophenyl phenyl ether	248	9.851	9.851	0.000	74	111567	5.00	5.31	
142 Atrazine	200	9.947	9.947	0.000	86	219502	10.0	10.5	
141 Hexachlorobenzene	284	9.947	9.947	0.000	73	105048	5.00	5.06	
244 n-Octadecane	57	10.082	10.082	0.000	84	337589	5.00	5.35	
143 Pentachlorophenol	266	10.096	10.096	0.000	88	136704	10.0	9.63	
148 Phenanthrene	178	10.284	10.284	0.000	99	608063	5.00	4.88	
149 Anthracene	178	10.327	10.327	0.000	99	612851	5.00	4.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.442	10.442	0.000	97	504871	5.00	4.89	
154 Di-n-butyl phthalate	149	10.683	10.683	0.000	100	664456	5.00	5.41	
159 Fluoranthene	202	11.303	11.303	0.000	100	635495	5.00	5.05	
160 Benzidine	184	11.370	11.370	0.000	99	612312	10.0	8.90	
161 Pyrene	202	11.505	11.505	0.000	96	685510	5.00	5.01	
168 Butyl benzyl phthalate	149	11.962	11.962	0.000	88	322729	5.00	5.05	
173 Bis(2-ethylhexyl) phthalat	149	12.443	12.443	0.000	93	446737	5.00	5.15	
175 3,3'-Dichlorobenzidine	252	12.476	12.476	0.000	77	421935	10.0	9.88	
177 Benzo[a]anthracene	228	12.544	12.544	0.000	99	704257	5.00	4.81	
178 Chrysene	228	12.582	12.582	0.000	97	651460	5.00	4.74	
180 Di-n-octyl phthalate	149	13.102	13.102	0.000	99	762125	5.00	5.19	
182 Benzo[b]fluoranthene	252	13.780	13.780	0.000	97	605774	5.00	4.94	
183 Benzo[k]fluoranthene	252	13.813	13.813	0.000	98	643840	5.00	5.20	
184 Benzo[a]pyrene	252	14.251	14.251	0.000	78	598596	5.00	5.13	
188 Indeno[1,2,3-cd]pyrene	276	16.271	16.271	0.000	98	615026	5.00	5.07	
189 Dibenz(a,h)anthracene	278	16.275	16.275	0.000	94	499134	5.00	5.25	
190 Benzo[g,h,i]perylene	276	16.876	16.876	0.000	92	522578	5.00	5.19	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L5 W_00006 Amount Added: 1.00 Units: mL

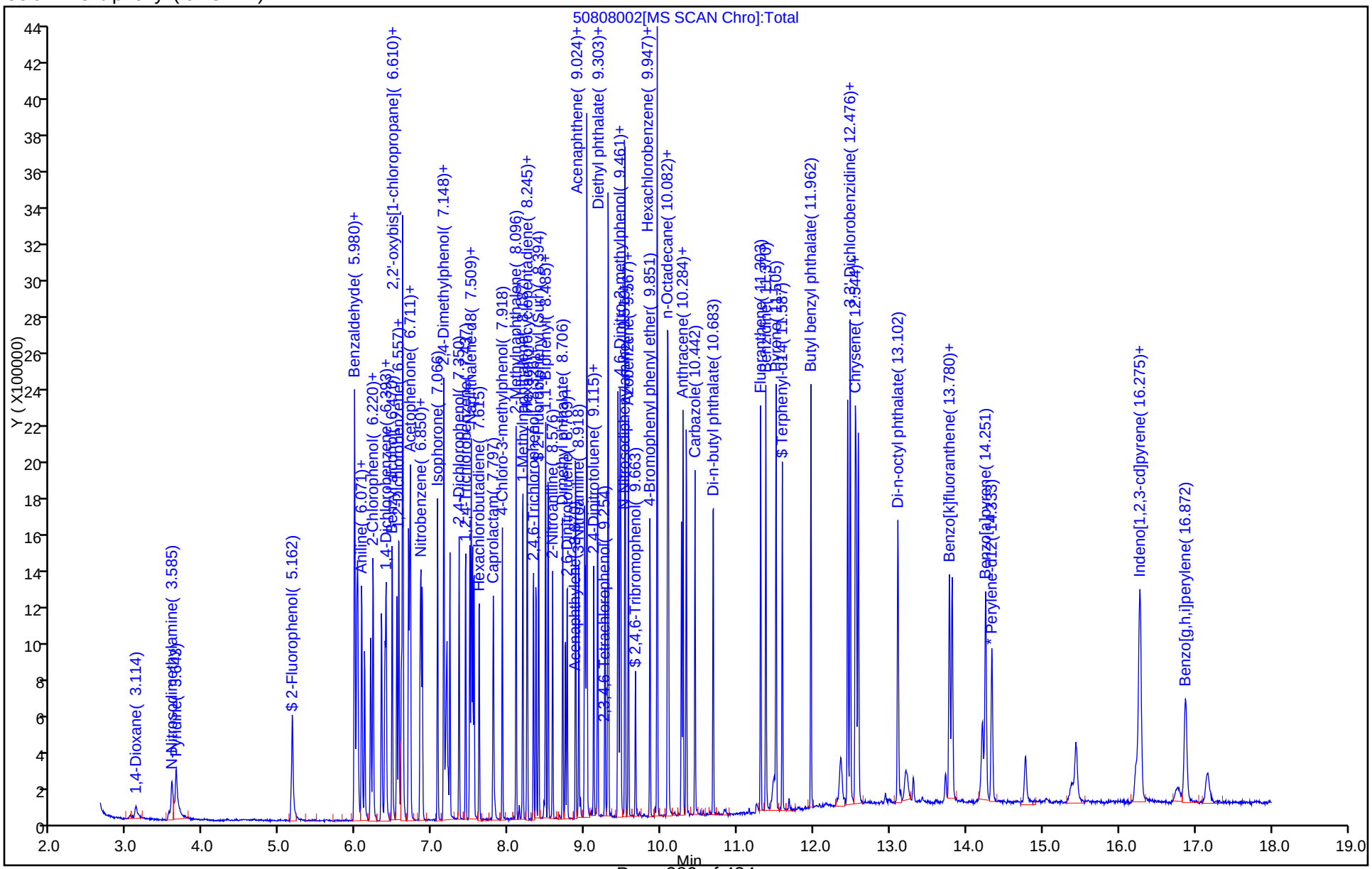
Report Date: 09-Aug-2015 17:32:23 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808002.D

Injection Date:	08-Aug-2015 15:32:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std5 lst1			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

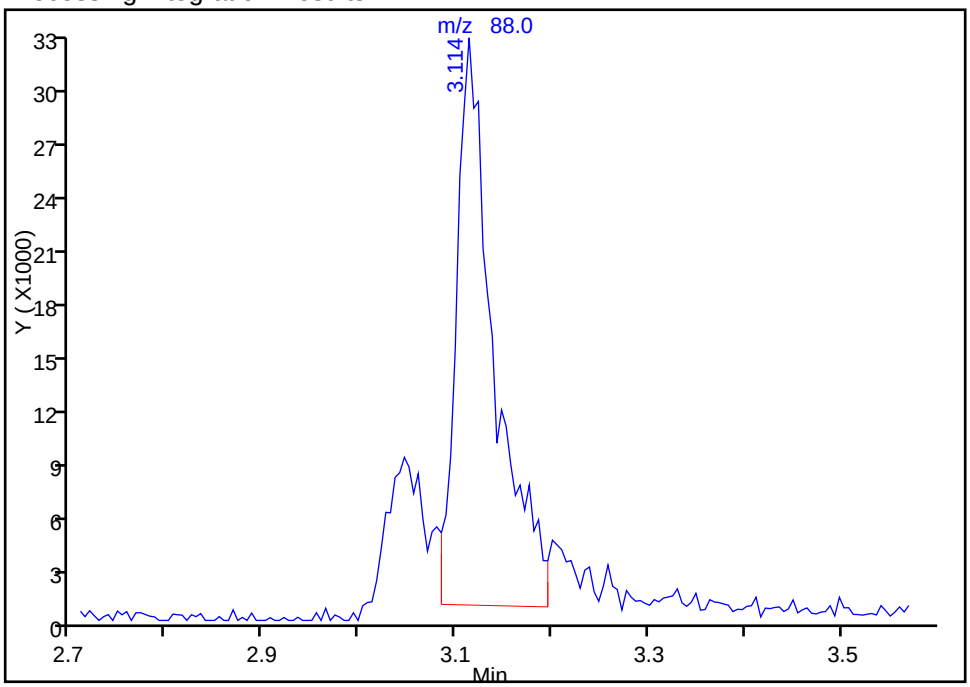
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808002.D
Injection Date: 08-Aug-2015 15:32:30 Instrument ID: A4HP9
Lims ID: std5 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

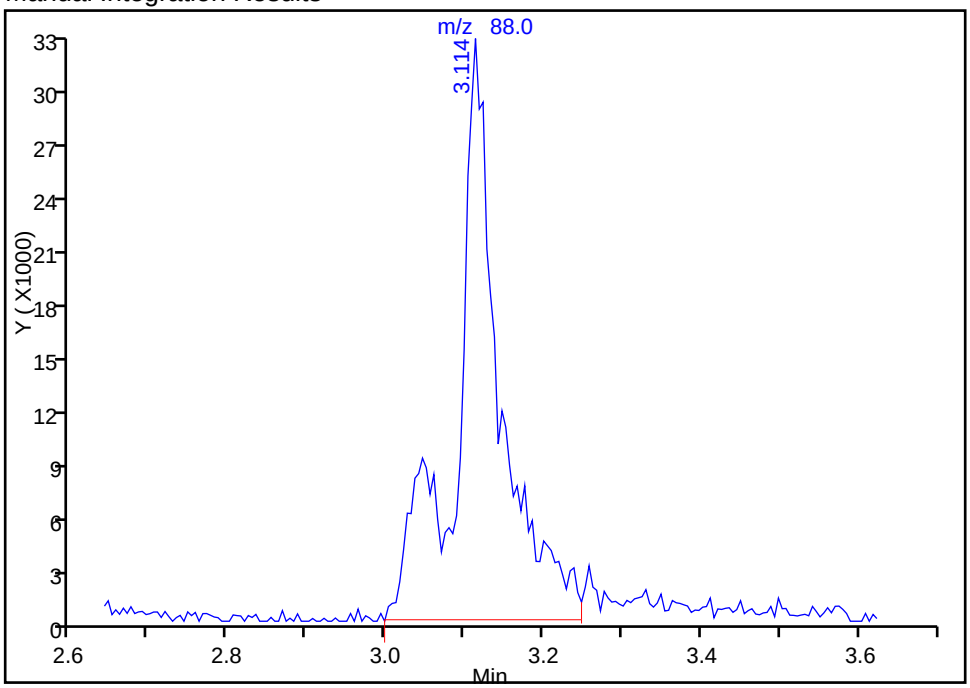
Processing Integration Results

RT: 3.11
Area: 87106
Amount: 5.000000
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 126971
Amount: 4.691802
Amount Units: ng/ul



Reviewer: ulmanm, 08-Aug-2015 16:08:35
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

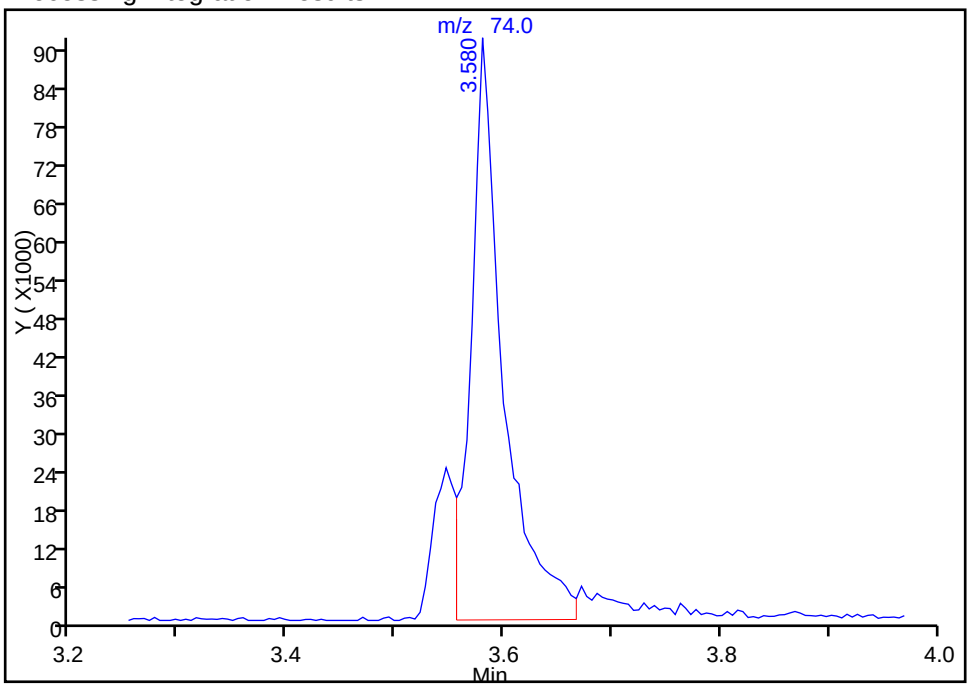
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808002.D
Injection Date: 08-Aug-2015 15:32:30 Instrument ID: A4HP9
Lims ID: std5 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

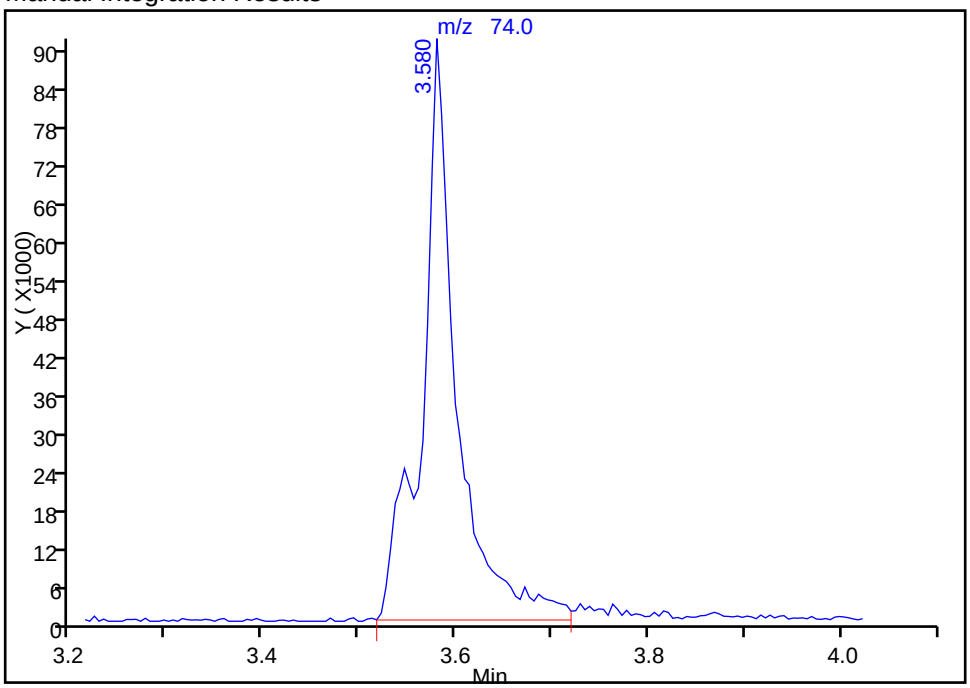
Processing Integration Results

RT: 3.58
Area: 189404
Amount: 5.000000
Amount Units: ng/ul



Manual Integration Results

RT: 3.58
Area: 227788
Amount: 4.899548
Amount Units: ng/ul



Reviewer: ulmanm, 08-Aug-2015 16:08:35
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

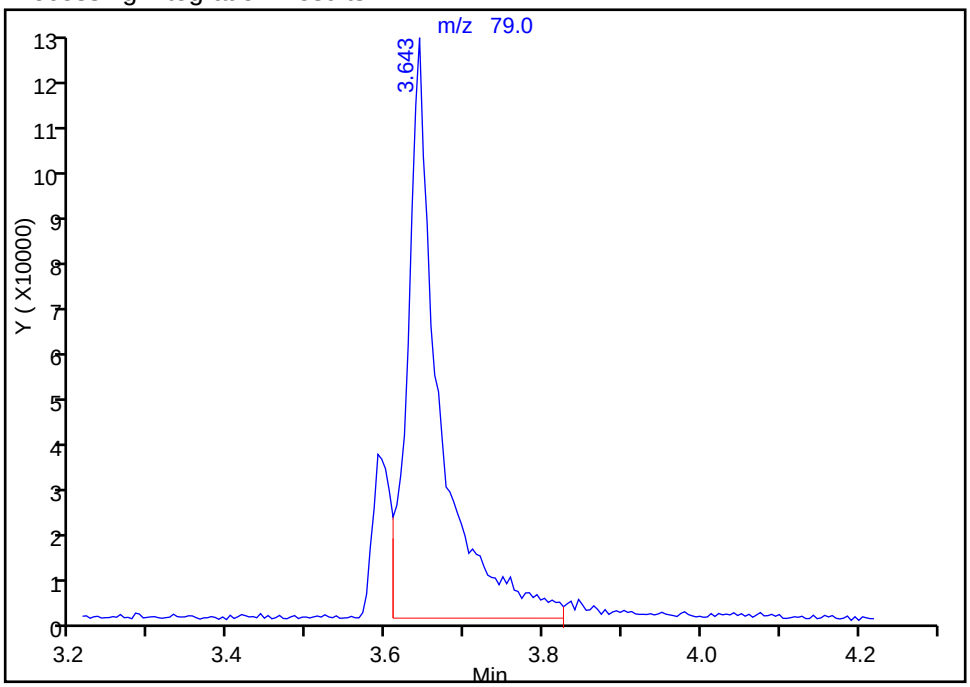
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808002.D
Injection Date: 08-Aug-2015 15:32:30 Instrument ID: A4HP9
Lims ID: std5 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

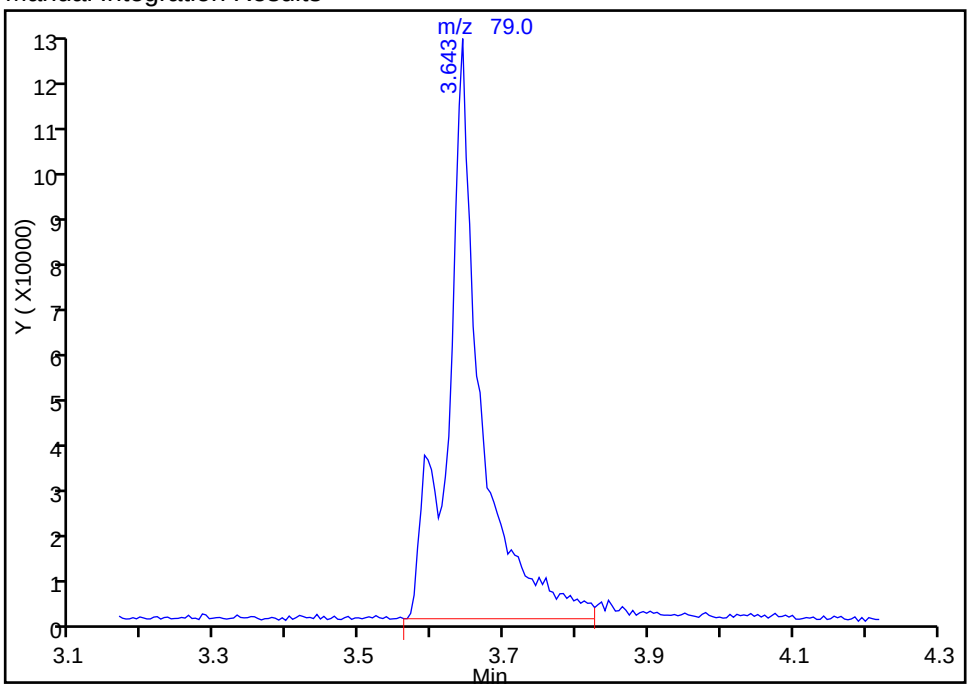
Processing Integration Results

RT: 3.64
Area: 350850
Amount: 5.000000
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 400630
Amount: 4.979912
Amount Units: ng/ul



Reviewer: ulmanm, 08-Aug-2015 16:08:35
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

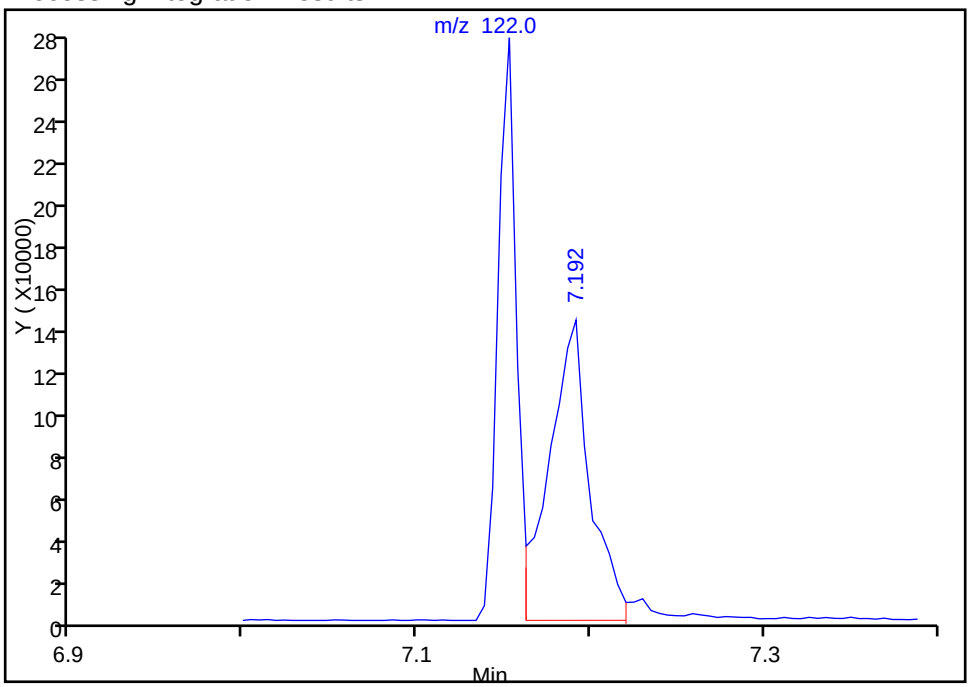
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808002.D
Injection Date: 08-Aug-2015 15:32:30 Instrument ID: A4HP9
Lims ID: std5 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

71 Benzoic acid, CAS: 65-85-0

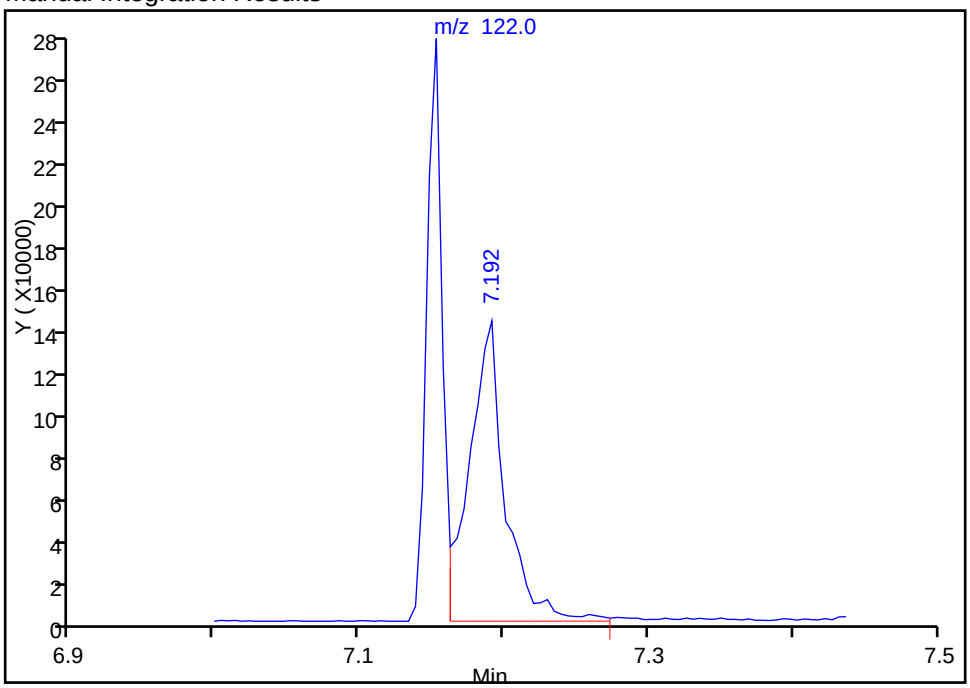
Processing Integration Results

RT: 7.19
Area: 237939
Amount: 10.000000
Amount Units: ng/ul



Manual Integration Results

RT: 7.19
Area: 250489
Amount: 10.241297
Amount Units: ng/ul



Reviewer: ulmanm, 08-Aug-2015 16:06:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808003.D
Lims ID: std4 lst1
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 08-Aug-2015 15:57:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-003
Misc. Info.: STD4 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:28 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:14:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.375	6.379	-0.004	93	121695	4.00	4.00	
* 2 Naphthalene-d8	136	7.491	7.490	0.001	98	470157	4.00	4.00	
* 3 Acenaphthene-d10	164	8.996	8.995	0.001	93	264550	4.00	4.00	
* 4 Phenanthrene-d10	188	10.265	10.264	0.001	97	431497	4.00	4.00	
* 5 Chrysene-d12	240	12.559	12.558	0.001	97	449330	4.00	4.00	
* 6 Perylene-d12	264	14.334	14.333	0.001	97	402560	4.00	4.00	
$ 7 2-Fluorophenol	112	5.158	5.162	-0.004	95	106639	2.00	2.00	
$ 8 Phenol-d5	99	6.010	6.009	0.001	96	158160	2.00	2.10	
$ 9 Nitrobenzene-d5	82	6.846	6.850	-0.004	82	185604	2.00	2.04	
$ 10 2-Fluorobiphenyl (Surr)	172	8.395	8.394	0.001	98	168703	2.00	1.95	
$ 11 2,4,6-Tribromophenol	330	9.664	9.663	0.001	78	18116	2.00	2.11	
$ 12 Terphenyl-d14	244	11.588	11.587	0.001	98	158736	2.00	1.92	
25 1,4-Dioxane	88	3.105	3.114	-0.009	86	60904	2.00	2.03	M
26 N-Nitrosodimethylamine	74	3.576	3.580	-0.004	87	94518	2.00	1.83	M
27 Pyridine	79	3.634	3.643	-0.009	89	162701	2.00	1.83	M
41 Benzaldehyde	77	5.981	5.980	0.001	87	297231	4.00	4.20	
43 Phenol	94	6.019	6.023	-0.004	95	173035	2.00	2.05	
44 Aniline	93	6.072	6.071	0.001	96	221840	2.00	2.04	
69 Bis(2-chloroethyl)ether	93	6.111	6.110	0.001	97	153973	2.00	2.02	
46 2-Chlorophenol	128	6.192	6.191	0.001	90	94318	2.00	2.04	
243 n-Decane	57	6.221	6.220	0.001	96	127088	2.00	2.09	
47 1,3-Dichlorobenzene	146	6.332	6.331	0.001	88	102552	2.00	2.07	
48 1,4-Dichlorobenzene	146	6.394	6.393	0.001	87	103712	2.00	2.05	
49 Benzyl alcohol	108	6.471	6.470	0.001	84	75967	2.00	2.03	
50 1,2-Dichlorobenzene	146	6.534	6.533	0.001	82	93223	2.00	1.94	
51 2-Methylphenol	108	6.558	6.562	-0.004	91	107735	2.00	2.08	
53 2,2'-oxybis[1-chloropropan	45	6.591	6.595	-0.004	97	118862	2.00	2.07	
52 Indene	115	6.611	6.610	0.001	88	390567	4.00	4.03	
21 3 & 4 Methylphenol	108	6.688	6.687	0.001	94	108201	2.00	1.98	
57 N-Nitrosodi-n-propylamine	70	6.702	6.701	0.001	98	122845	2.00	2.04	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.712	6.711	0.001	88	174546	2.00	2.04	
61 Hexachloroethane	117	6.842	6.840	0.002	91	48367	2.00	1.95	
62 Nitrobenzene	77	6.866	6.865	0.001	79	180479	2.00	1.98	
64 Isophorone	82	7.068	7.066	0.002	97	295838	2.00	2.05	
66 2-Nitrophenol	139	7.144	7.148	-0.004	80	44063	2.00	2.09	
65 2,4-Dimethylphenol	107	7.149	7.153	-0.004	94	120125	2.00	2.09	
71 Benzoic acid	122	7.173	7.192	-0.019	76	82463	4.00	3.67	M
70 Bis(2-chloroethoxy)methane	93	7.231	7.230	0.001	97	162584	2.00	2.05	
73 2,4-Dichlorophenol	162	7.351	7.350	0.001	92	74427	2.00	2.07	
74 1,2,4-Trichlorobenzene	180	7.433	7.437	-0.004	88	78697	2.00	2.06	
75 Naphthalene	128	7.510	7.509	0.001	97	268744	2.00	2.00	
76 4-Chloroaniline	127	7.524	7.528	-0.004	90	115864	2.00	2.00	
77 2,6-Dichlorophenol	162	7.544	7.547	-0.003	86	68597	2.00	1.97	
79 Hexachlorobutadiene	225	7.616	7.615	0.001	94	49817	2.00	2.10	
84 Caprolactam	113	7.794	7.797	-0.003	86	65379	4.00	4.02	
86 4-Chloro-3-methylphenol	107	7.914	7.918	-0.004	86	101835	2.00	2.07	
87 2-Methylnaphthalene	142	8.097	8.096	0.001	91	171176	2.00	2.08	
88 1-Methylnaphthalene	142	8.183	8.187	-0.004	91	150940	2.00	2.08	
89 Hexachlorocyclopentadiene	237	8.241	8.240	0.001	94	42153	2.00	1.92	
91 1,2,4,5-Tetrachlorobenzene	216	8.246	8.245	0.001	93	78376	2.00	2.08	
92 2,4,6-Trichlorophenol	196	8.327	8.326	0.001	93	52518	2.00	2.12	
93 2,4,5-Trichlorophenol	196	8.356	8.360	-0.004	89	56043	2.00	2.15	
98 1,1'-Biphenyl	154	8.486	8.485	0.001	97	200935	2.00	2.05	
100 2-Chloronaphthalene	162	8.515	8.519	-0.004	97	161094	2.00	2.08	
102 2-Nitroaniline	65	8.573	8.576	-0.003	70	78176	2.00	1.93	
105 Dimethyl phthalate	163	8.707	8.711	-0.004	92	179540	2.00	2.14	
106 1,3-Dinitrobenzene	168	8.741	8.745	-0.004	76	25707	2.00	1.97	
107 2,6-Dinitrotoluene	165	8.765	8.769	-0.004	76	37915	2.00	2.04	
109 Acenaphthylene	152	8.876	8.875	0.001	98	246450	2.00	1.99	
110 3-Nitroaniline	138	8.919	8.918	0.001	85	43252	2.00	2.14	
111 2,4-Dinitrophenol	184	9.005	9.004	0.001	77	27041	4.00	3.60	
112 Acenaphthene	153	9.025	9.024	0.001	97	166162	2.00	2.09	
113 4-Nitrophenol	109	9.025	9.028	-0.003	85	64800	4.00	3.84	
114 2,4-Dinitrotoluene	165	9.116	9.115	0.001	80	50118	2.00	2.03	
116 Dibenzofuran	168	9.164	9.168	-0.004	96	222974	2.00	2.05	
119 2,3,4,6-Tetrachlorophenol	232	9.260	9.264	-0.004	81	41501	2.00	1.99	
121 Diethyl phthalate	149	9.299	9.303	-0.004	95	170844	2.00	2.08	
247 Hexadecane	57	9.304	9.307	-0.003	92	144537	2.00	2.15	
123 4-Chlorophenyl phenyl ethe	204	9.433	9.432	0.001	90	83133	2.00	2.05	
125 4-Nitroaniline	138	9.438	9.437	0.001	76	41338	2.00	2.11	
126 Fluorene	166	9.458	9.461	-0.003	98	190687	2.00	2.09	
128 4,6-Dinitro-2-methylphenol	198	9.472	9.471	0.001	92	37229	4.00	3.42	
131 N-Nitrosodiphenylamine	169	9.525	9.524	0.001	97	257163	4.00	4.19	
133 Azobenzene	77	9.568	9.567	0.001	93	345872	2.00	2.03	
132 1,2-Diphenylhydrazine	77	9.568	9.567	0.001	99	345638	2.00	2.03	
139 4-Bromophenyl phenyl ether	248	9.852	9.851	0.001	74	45785	2.00	1.99	
142 Atrazine	200	9.948	9.947	0.001	87	86109	4.00	3.74	
141 Hexachlorobenzene	284	9.948	9.947	0.001	75	45997	2.00	2.02	
244 n-Octadecane	57	10.083	10.082	0.001	83	147982	2.00	2.14	
143 Pentachlorophenol	266	10.092	10.096	-0.004	87	58963	4.00	3.79	
148 Phenanthrene	178	10.285	10.284	0.001	99	269978	2.00	1.97	
149 Anthracene	178	10.328	10.327	0.001	99	271831	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.443	10.442	0.001	97	208338	2.00	1.84	
154 Di-n-butyl phthalate	149	10.679	10.683	-0.004	99	222183	2.00	1.65	
159 Fluoranthene	202	11.304	11.303	0.001	99	218365	2.00	1.58	
160 Benzidine	184	11.371	11.370	0.001	98	171667	4.00	3.27	
161 Pyrene	202	11.506	11.505	0.001	96	225647	2.00	1.74	
168 Butyl benzyl phthalate	149	11.963	11.962	0.001	89	117594	2.00	1.95	
173 Bis(2-ethylhexyl) phthalat	149	12.444	12.443	0.001	93	162649	2.00	1.98	
175 3,3'-Dichlorobenzidine	252	12.477	12.476	0.001	77	156321	4.00	3.87	
177 Benzo[a]anthracene	228	12.545	12.544	0.001	99	267203	2.00	1.93	
178 Chrysene	228	12.583	12.582	0.001	97	257394	2.00	1.98	
180 Di-n-octyl phthalate	149	13.103	13.102	0.001	99	282293	2.00	1.98	
182 Benzo[b]fluoranthene	252	13.776	13.780	-0.004	97	230451	2.00	1.93	
183 Benzo[k]fluoranthene	252	13.814	13.813	0.001	99	241847	2.00	2.01	
184 Benzo[a]pyrene	252	14.252	14.251	0.001	78	220045	2.00	1.94	
188 Indeno[1,2,3-cd]pyrene	276	16.272	16.271	0.001	94	234046	2.00	1.98	
189 Dibenz(a,h)anthracene	278	16.281	16.275	0.006	48	192826	2.00	2.08	
190 Benzo[g,h,i]perylene	276	16.868	16.876	-0.008	96	198700	2.00	2.03	
S 191 Methyl Phenols,Total	100				0			4.05	
S 245 Total Cresols	100				0			4.05	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L4 W_00006 Amount Added: 1.00 Units: mL

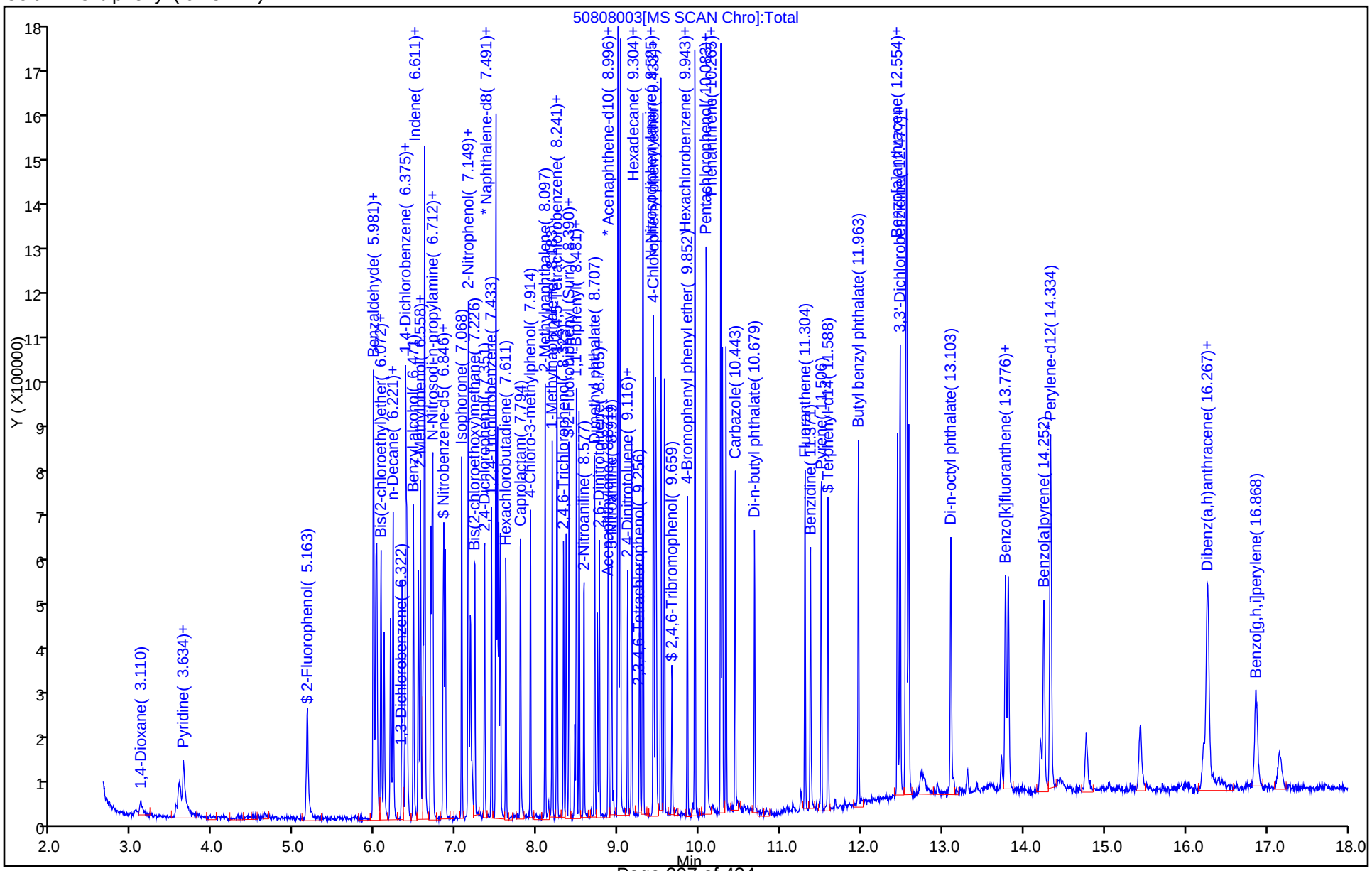
Report Date: 09-Aug-2015 17:32:29 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808003.D

Injection Date:	08-Aug-2015 15:57:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std4 lst1			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

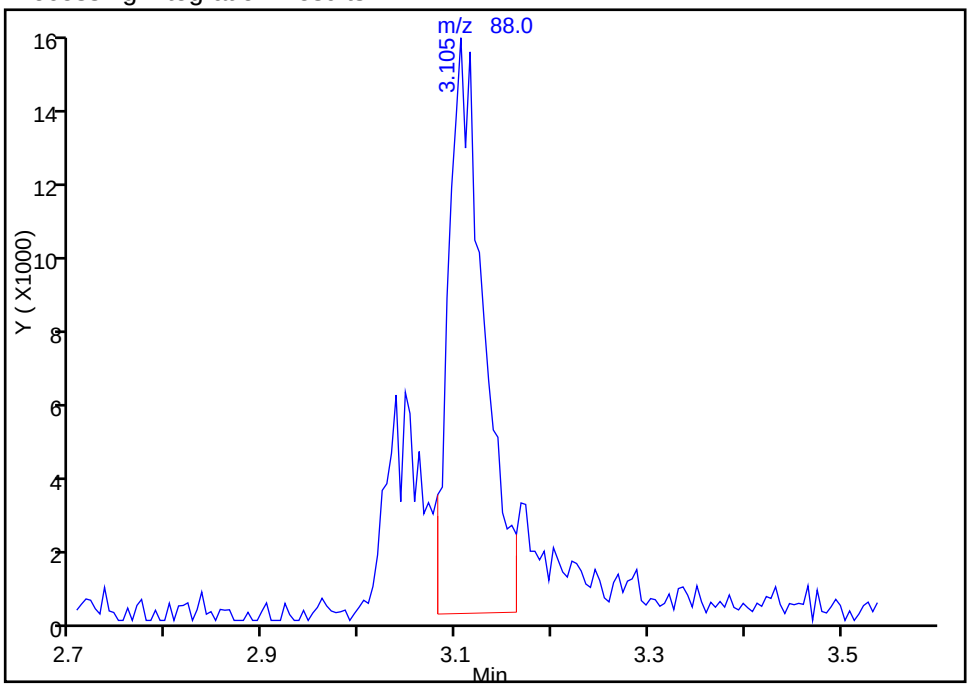
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808003.D
Injection Date: 08-Aug-2015 15:57:30 Instrument ID: A4HP9
Lims ID: std4 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

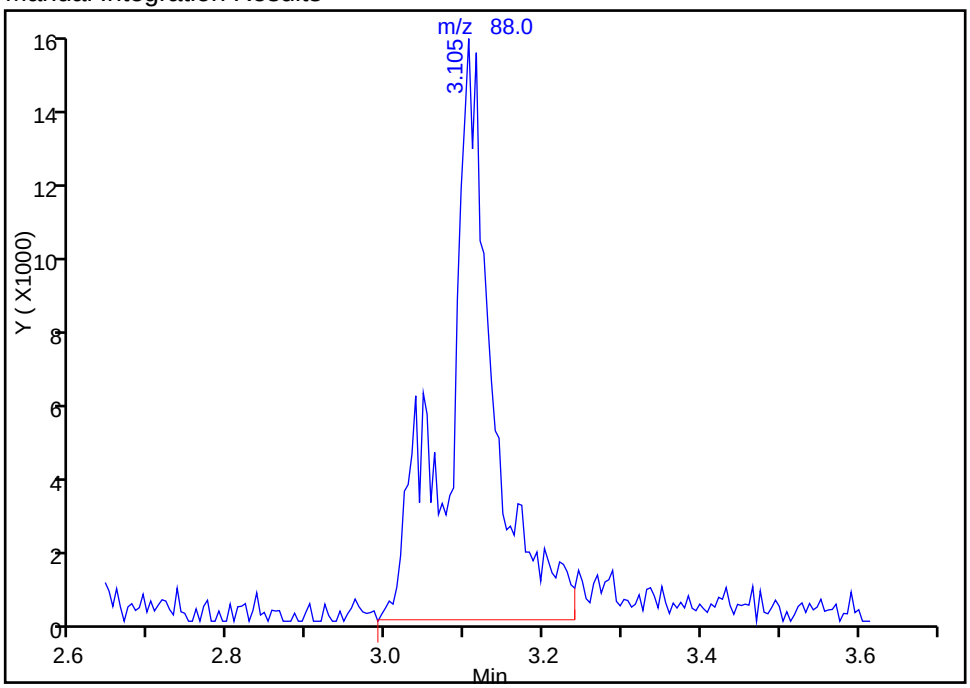
Processing Integration Results

RT: 3.11
Area: 38008
Amount: 1.732538
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 60904
Amount: 2.030998
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:14:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

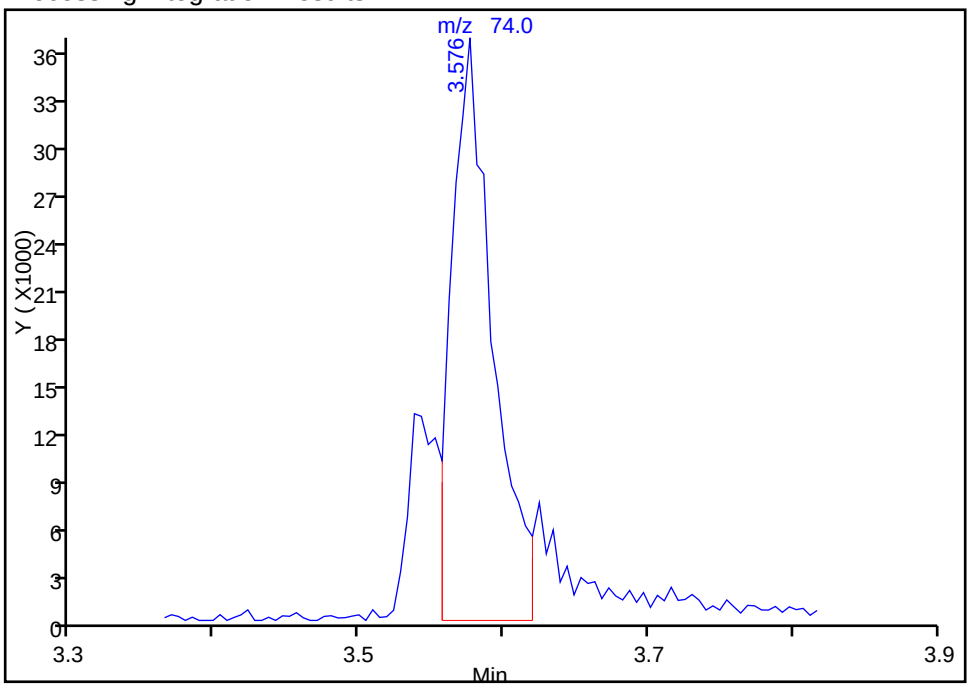
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808003.D
Injection Date: 08-Aug-2015 15:57:30 Instrument ID: A4HP9
Lims ID: std4 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

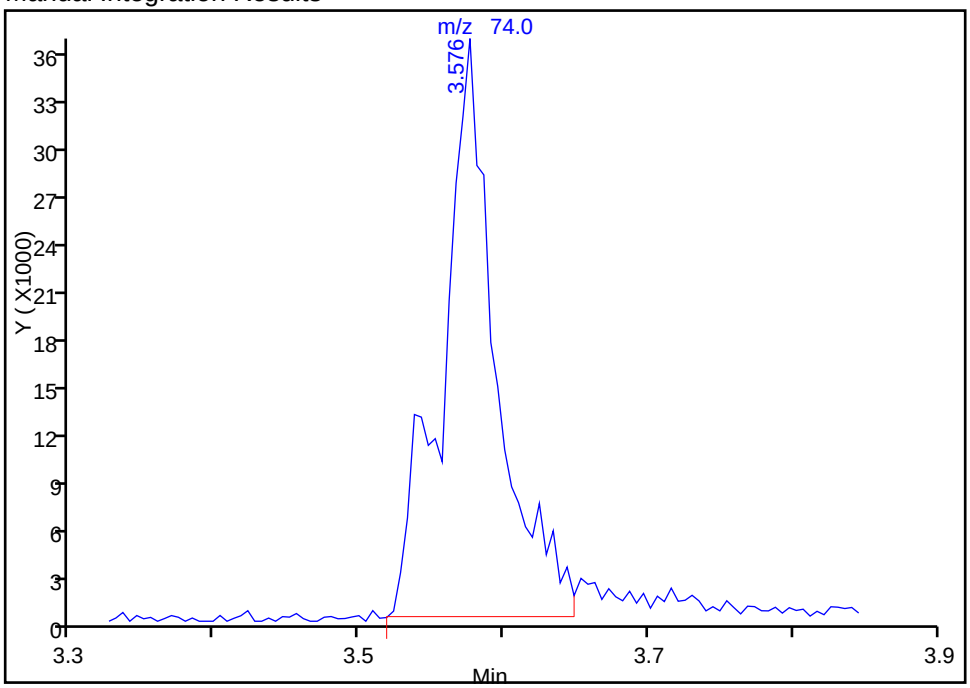
Processing Integration Results

RT: 3.58
Area: 72829
Amount: 1.660463
Amount Units: ng/ul



Manual Integration Results

RT: 3.58
Area: 94518
Amount: 1.834713
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:14:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

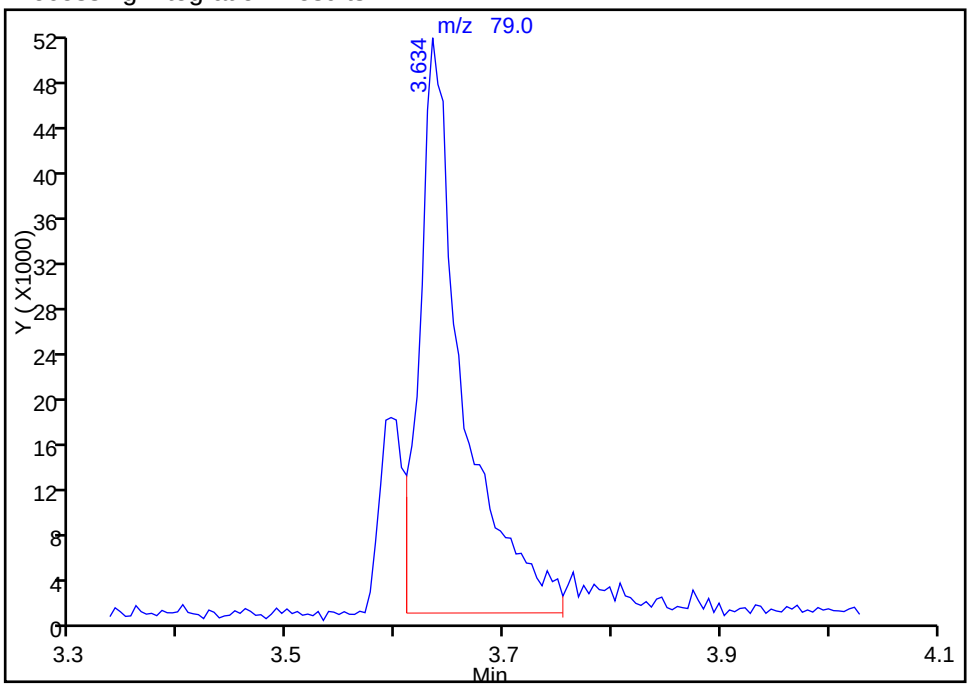
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808003.D
Injection Date: 08-Aug-2015 15:57:30 Instrument ID: A4HP9
Lims ID: std4 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

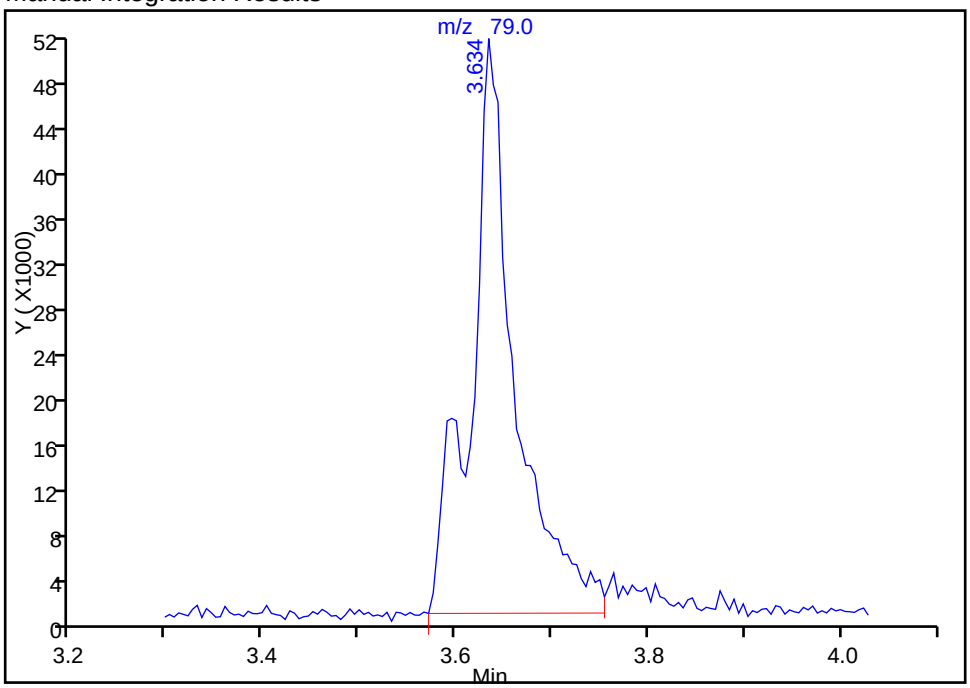
Processing Integration Results

RT: 3.63
Area: 139218
Amount: 1.837824
Amount Units: ng/ul



Manual Integration Results

RT: 3.63
Area: 162701
Amount: 1.825143
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:14:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

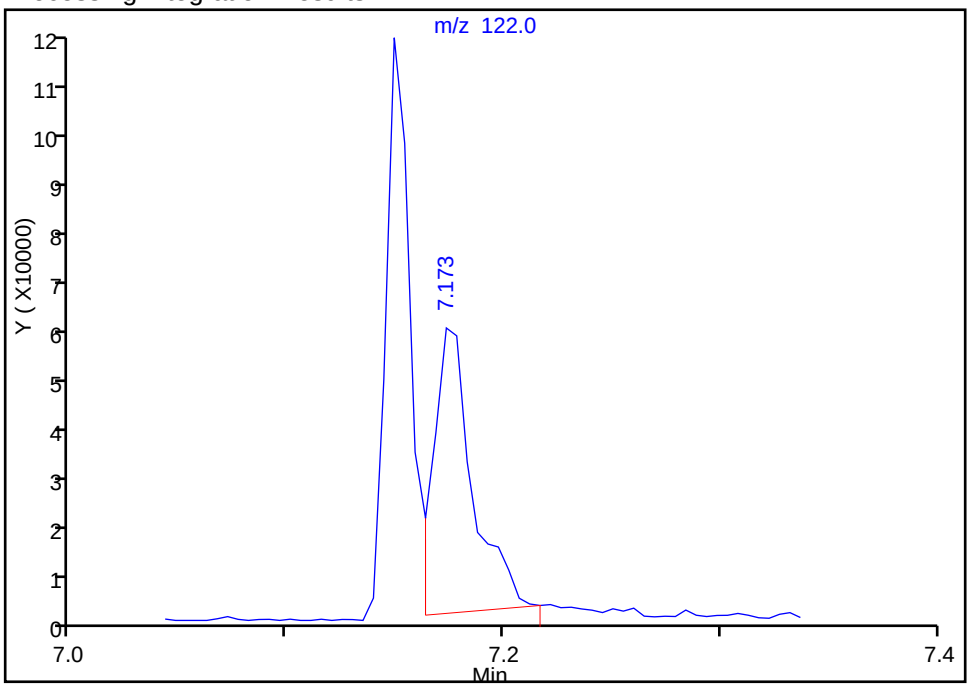
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808003.D				
Injection Date:	08-Aug-2015 15:57:30	Instrument ID:	A4HP9		
Lims ID:	std4 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

71 Benzoic acid, CAS: 65-85-0

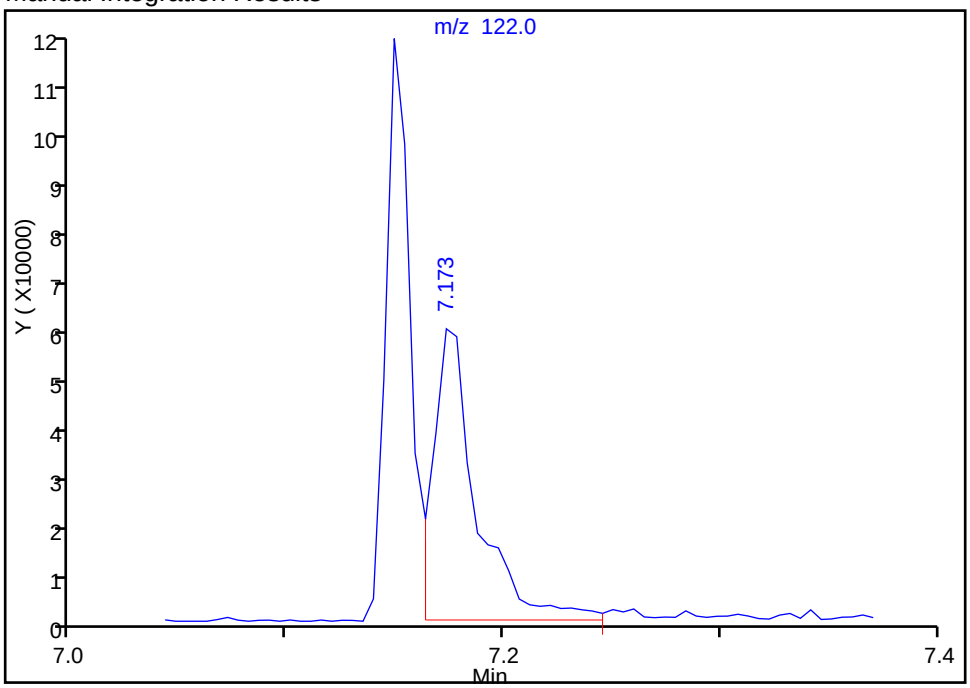
Processing Integration Results

RT: 7.17
Area: 72547
Amount: 3.661554
Amount Units: ng/ul



Manual Integration Results

RT: 7.17
Area: 82463
Amount: 3.673538
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:14:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808004.D
Lims ID: std3 lst1
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 08-Aug-2015 16:23:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-004
Misc. Info.: STD3 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:33 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:17:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.375	6.379	-0.004	93	121003	4.00	4.00	
* 2 Naphthalene-d8	136	7.491	7.490	0.001	98	465459	4.00	4.00	
* 3 Acenaphthene-d10	164	8.996	8.995	0.001	92	268610	4.00	4.00	
* 4 Phenanthrene-d10	188	10.266	10.264	0.002	97	433773	4.00	4.00	
* 5 Chrysene-d12	240	12.559	12.558	0.001	97	494281	4.00	4.00	
* 6 Perylene-d12	264	14.334	14.333	0.001	96	419012	4.00	4.00	
$ 7 2-Fluorophenol	112	5.164	5.162	0.002	94	51389	1.00	0.9705	
$ 8 Phenol-d5	99	6.010	6.009	0.001	95	75432	1.00	1.01	
$ 9 Nitrobenzene-d5	82	6.851	6.850	0.001	84	90660	1.00	1.01	
$ 10 2-Fluorobiphenyl (Surr)	172	8.390	8.394	-0.004	97	88812	1.00	1.01	
$ 11 2,4,6-Tribromophenol	330	9.660	9.663	-0.003	76	8365	1.00	0.9576	
$ 12 Terphenyl-d14	244	11.588	11.587	0.001	98	86783	1.00	0.9539	
25 1,4-Dioxane	88	3.115	3.114	0.001	84	28651	1.00	0.9609	M
26 N-Nitrosodimethylamine	74	3.586	3.580	0.006	85	47391	1.00	0.9252	M
27 Pyridine	79	3.639	3.643	-0.004	86	86283	1.00	0.9734	M
41 Benzaldehyde	77	5.981	5.980	0.001	88	151440	2.00	2.15	
43 Phenol	94	6.019	6.023	-0.004	95	86861	1.00	1.03	
44 Aniline	93	6.072	6.071	0.001	96	108459	1.00	1.00	
69 Bis(2-chloroethyl)ether	93	6.111	6.110	0.001	95	78000	1.00	1.03	
46 2-Chlorophenol	128	6.193	6.191	0.002	86	47497	1.00	1.03	
243 n-Decane	57	6.221	6.220	0.001	96	61280	1.00	1.01	
47 1,3-Dichlorobenzene	146	6.332	6.331	0.001	86	51113	1.00	1.04	
48 1,4-Dichlorobenzene	146	6.390	6.393	-0.003	89	52742	1.00	1.05	
49 Benzyl alcohol	108	6.472	6.470	0.002	84	37583	1.00	1.01	
50 1,2-Dichlorobenzene	146	6.534	6.533	0.001	86	48700	1.00	1.02	
51 2-Methylphenol	108	6.558	6.562	-0.004	89	51889	1.00	1.01	
53 2,2'-oxybis[1-chloropropan	45	6.592	6.595	-0.003	99	59150	1.00	1.04	
52 Indene	115	6.611	6.610	0.001	89	206181	2.00	2.14	
21 3 & 4 Methylphenol	108	6.688	6.687	0.001	94	54759	1.00	1.01	
57 N-Nitrosodi-n-propylamine	70	6.702	6.701	0.001	96	64855	1.00	1.08	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.712	6.711	0.001	90	89429	1.00	1.05	
61 Hexachloroethane	117	6.837	6.840	-0.003	90	24521	1.00	0.99	
62 Nitrobenzene	77	6.866	6.865	0.001	79	91825	1.00	1.02	
64 Isophorone	82	7.068	7.066	0.002	97	148099	1.00	1.04	
66 2-Nitrophenol	139	7.145	7.148	-0.003	73	19303	1.00	0.9239	
65 2,4-Dimethylphenol	107	7.150	7.153	-0.003	92	63152	1.00	1.11	
71 Benzoic acid	122	7.169	7.192	-0.023	80	31759	2.00	1.83	M
70 Bis(2-chloroethoxy)methane	93	7.227	7.230	-0.004	97	82411	1.00	1.05	
73 2,4-Dichlorophenol	162	7.352	7.350	0.002	93	38673	1.00	1.09	
74 1,2,4-Trichlorobenzene	180	7.433	7.437	-0.004	86	39376	1.00	1.04	
75 Naphthalene	128	7.510	7.509	0.001	98	138972	1.00	1.04	
76 4-Chloroaniline	127	7.525	7.528	-0.003	87	60135	1.00	1.05	
77 2,6-Dichlorophenol	162	7.544	7.547	-0.003	87	37223	1.00	1.08	
79 Hexachlorobutadiene	225	7.616	7.615	0.001	92	23685	1.00	1.01	
84 Caprolactam	113	7.789	7.797	-0.008	86	33462	2.00	2.08	
86 4-Chloro-3-methylphenol	107	7.914	7.918	-0.004	85	49724	1.00	1.02	
87 2-Methylnaphthalene	142	8.097	8.096	0.001	90	88221	1.00	1.08	
88 1-Methylnaphthalene	142	8.183	8.187	-0.004	89	73395	1.00	1.02	
89 Hexachlorocyclopentadiene	237	8.241	8.240	0.001	93	21658	1.00	0.9722	
91 1,2,4,5-Tetrachlorobenzene	216	8.246	8.245	0.001	95	40424	1.00	1.06	
92 2,4,6-Trichlorophenol	196	8.323	8.326	-0.003	89	24184	1.00	0.9614	
93 2,4,5-Trichlorophenol	196	8.357	8.360	-0.003	87	28330	1.00	1.07	
98 1,1'-Biphenyl	154	8.482	8.485	-0.003	97	100669	1.00	1.01	
100 2-Chloronaphthalene	162	8.515	8.519	-0.004	96	79773	1.00	1.01	
102 2-Nitroaniline	65	8.573	8.576	-0.003	70	41994	1.00	1.02	
105 Dimethyl phthalate	163	8.708	8.711	-0.003	91	90809	1.00	1.07	
106 1,3-Dinitrobenzene	168	8.741	8.745	-0.004	77	11213	1.00	0.8467	
107 2,6-Dinitrotoluene	165	8.765	8.769	-0.004	75	17954	1.00	0.9534	
109 Acenaphthylene	152	8.876	8.875	0.001	99	128554	1.00	1.02	
110 3-Nitroaniline	138	8.914	8.918	-0.004	82	19469	1.00	0.9486	
111 2,4-Dinitrophenol	184	9.006	9.004	0.002	80	11014	2.00	2.00	
112 Acenaphthene	153	9.020	9.024	-0.004	97	83990	1.00	1.04	
113 4-Nitrophenol	109	9.025	9.028	-0.003	80	31856	2.00	1.86	
114 2,4-Dinitrotoluene	165	9.116	9.115	0.001	80	25022	1.00	1.00	
116 Dibenzofuran	168	9.164	9.168	-0.004	96	116101	1.00	1.05	
119 2,3,4,6-Tetrachlorophenol	232	9.261	9.264	-0.003	81	22489	1.00	1.06	
121 Diethyl phthalate	149	9.299	9.303	-0.004	94	89620	1.00	1.07	
247 Hexadecane	57	9.304	9.307	-0.003	95	73591	1.00	1.08	
123 4-Chlorophenyl phenyl ethe	204	9.434	9.432	0.002	91	43559	1.00	1.06	
125 4-Nitroaniline	138	9.434	9.437	-0.003	77	21022	1.00	1.05	
126 Fluorene	166	9.458	9.461	-0.003	99	94043	1.00	1.02	
128 4,6-Dinitro-2-methylphenol	198	9.472	9.471	0.001	90	15869	2.00	1.86	
131 N-Nitrosodiphenylamine	169	9.525	9.524	0.001	97	133421	2.00	2.16	
133 Azobenzene	77	9.568	9.567	0.001	93	174004	1.00	1.02	
132 1,2-Diphenylhydrazine	77	9.568	9.567	0.001	99	173185	1.00	1.01	
139 4-Bromophenyl phenyl ether	248	9.852	9.851	0.001	74	24289	1.00	1.05	
142 Atrazine	200	9.943	9.947	-0.004	83	46773	2.00	2.02	
141 Hexachlorobenzene	284	9.948	9.947	0.001	73	22930	1.00	1.00	
244 n-Octadecane	57	10.083	10.082	0.001	83	74873	1.00	1.08	
143 Pentachlorophenol	266	10.093	10.096	-0.003	86	28669	2.00	1.83	
148 Phenanthrene	178	10.285	10.284	0.001	98	144477	1.00	1.05	
149 Anthracene	178	10.328	10.327	0.001	99	136819	1.00	1.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.439	10.442	-0.003	96	120555	1.00	1.06	
154 Di-n-butyl phthalate	149	10.679	10.683	-0.004	99	118309	1.00	0.8729	
159 Fluoranthene	202	11.304	11.303	0.001	99	131229	1.00	0.9452	
160 Benzidine	184	11.372	11.370	0.002	99	80286	2.00	1.91	
161 Pyrene	202	11.506	11.505	0.001	95	135569	1.00	0.9518	
168 Butyl benzyl phthalate	149	11.963	11.962	0.001	89	63909	1.00	0.9615	
173 Bis(2-ethylhexyl) phthalat	149	12.444	12.443	0.001	94	85802	1.00	0.9497	
175 3,3'-Dichlorobenzidine	252	12.478	12.476	0.002	77	86282	2.00	1.94	
177 Benzo[a]anthracene	228	12.545	12.544	0.001	98	151178	1.00	0.99	
178 Chrysene	228	12.584	12.582	0.002	98	143530	1.00	1.00	
180 Di-n-octyl phthalate	149	13.103	13.102	0.001	99	144523	1.00	0.9720	
182 Benzo[b]fluoranthene	252	13.776	13.780	-0.004	96	122697	1.00	0.9882	
183 Benzo[k]fluoranthene	252	13.810	13.813	-0.003	97	125321	1.00	1.00	
184 Benzo[a]pyrene	252	14.252	14.251	0.001	79	113938	1.00	0.9642	
188 Indeno[1,2,3-cd]pyrene	276	16.267	16.271	-0.004	90	121662	1.00	0.99	
189 Dibenz(a,h)anthracene	278	16.272	16.275	-0.003	76	96008	1.00	1.00	
190 Benzo[g,h,i]perylene	276	16.873	16.876	-0.003	89	109534	1.00	1.07	
S 191 Methyl Phenols,Total	100				0			2.01	
S 245 Total Cresols	100				0			2.01	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L3 W_00006 Amount Added: 1.00 Units: mL

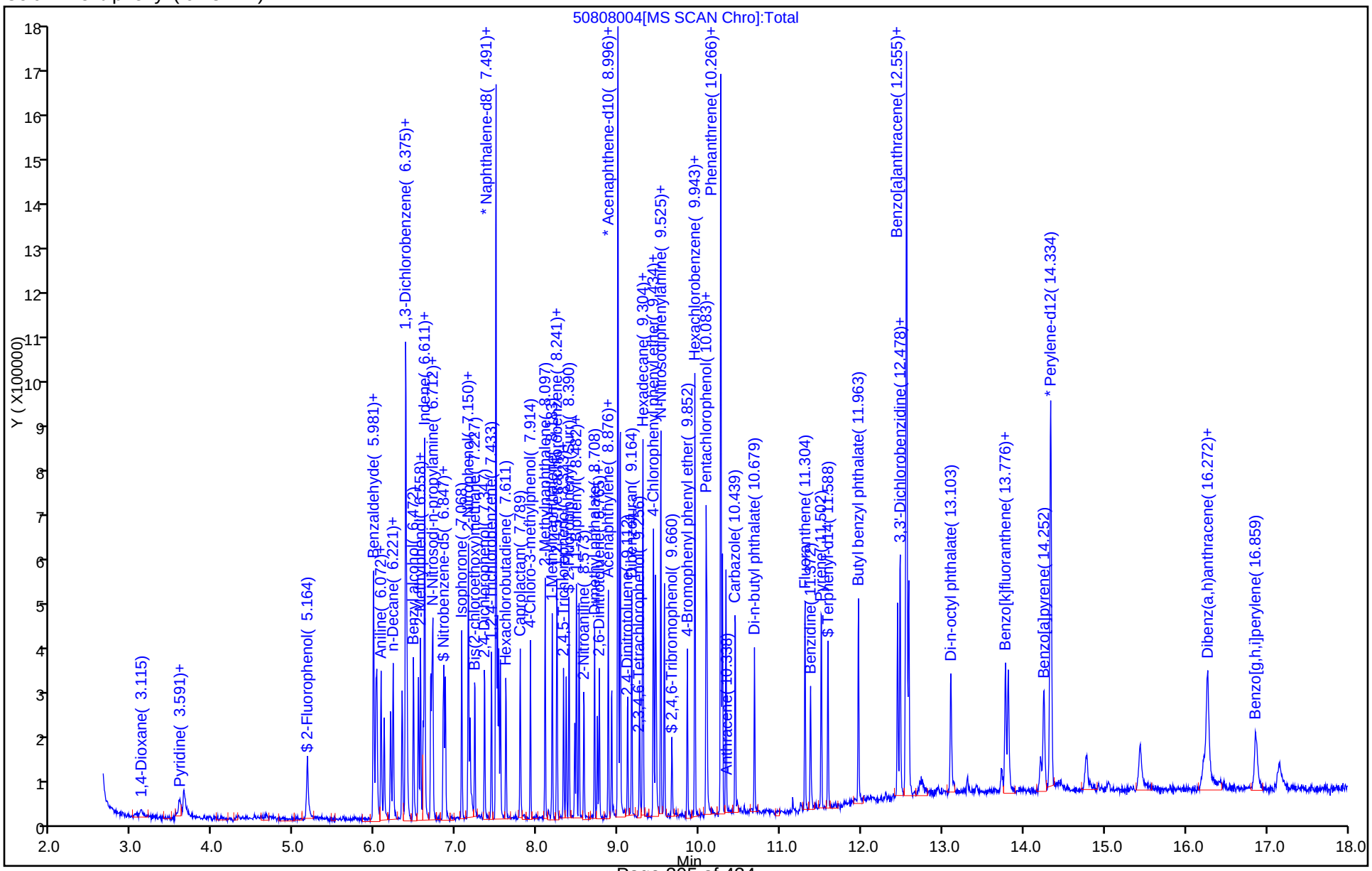
Report Date: 09-Aug-2015 17:32:34 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808004.D

Injection Date:	08-Aug-2015 16:23:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std3 lst1			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

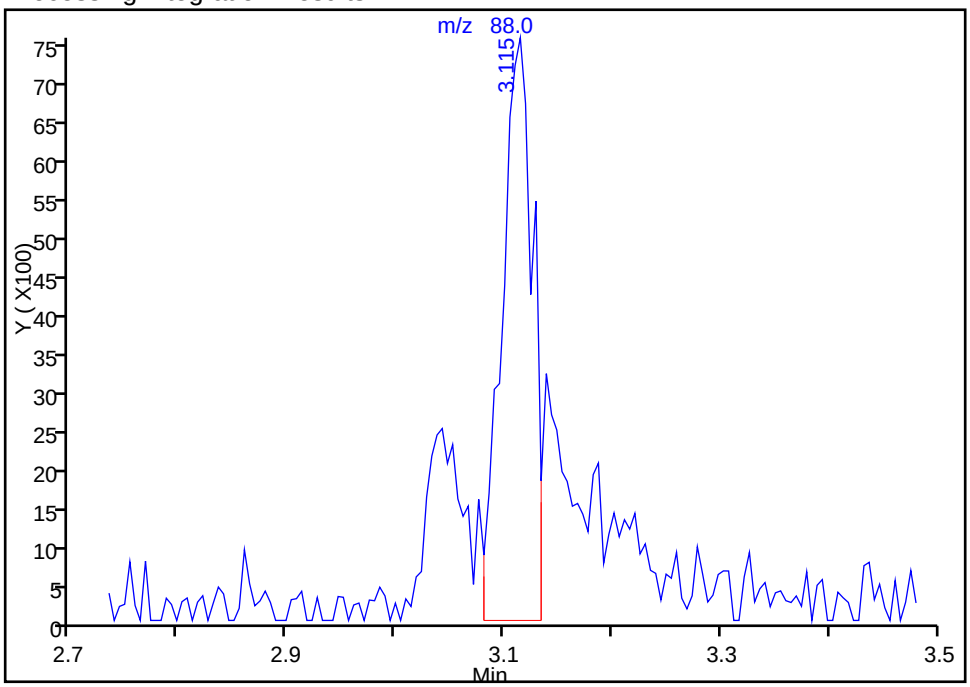
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808004.D
Injection Date: 08-Aug-2015 16:23:30 Instrument ID: A4HP9
Lims ID: std3 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

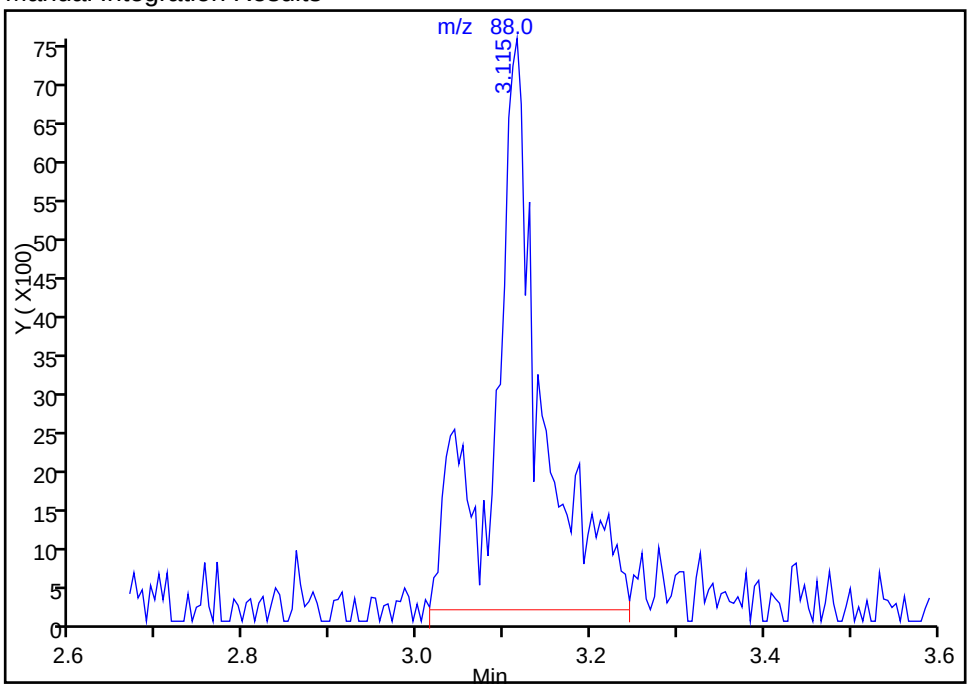
Processing Integration Results

RT: 3.11
Area: 15154
Amount: 0.758735
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 28651
Amount: 0.960904
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:17:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

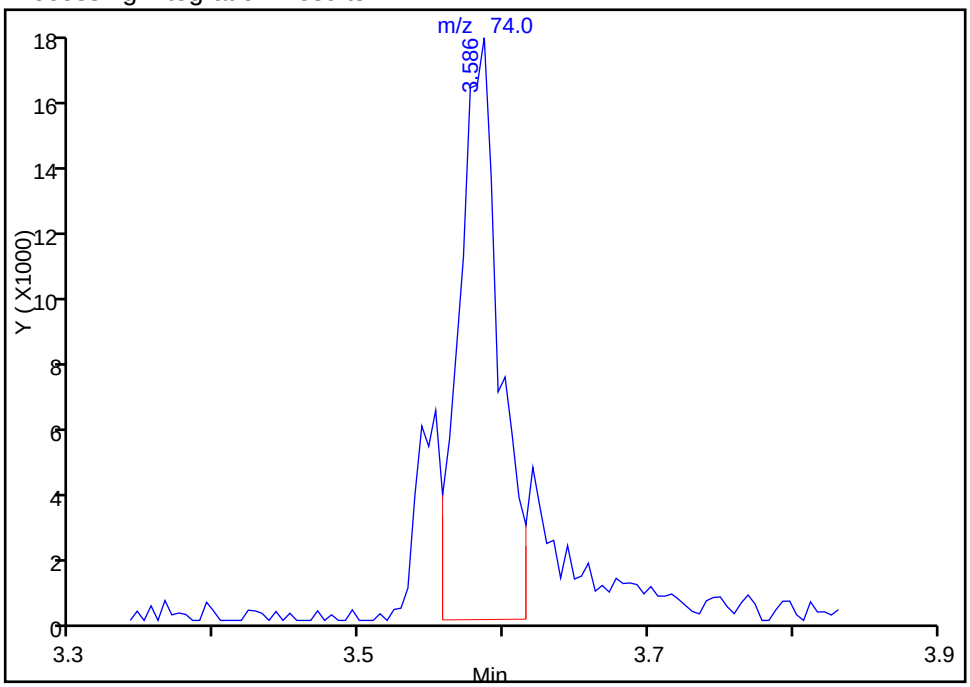
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808004.D
Injection Date: 08-Aug-2015 16:23:30 Instrument ID: A4HP9
Lims ID: std3 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

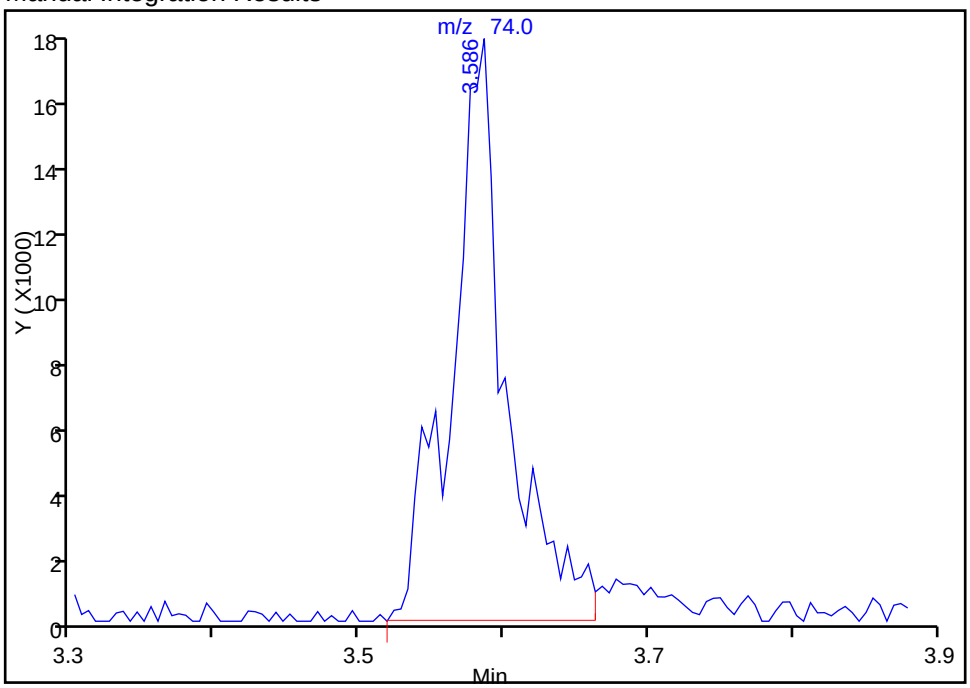
Processing Integration Results

RT: 3.59
Area: 34524
Amount: 0.767898
Amount Units: ng/ul



Manual Integration Results

RT: 3.59
Area: 47391
Amount: 0.925180
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:17:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

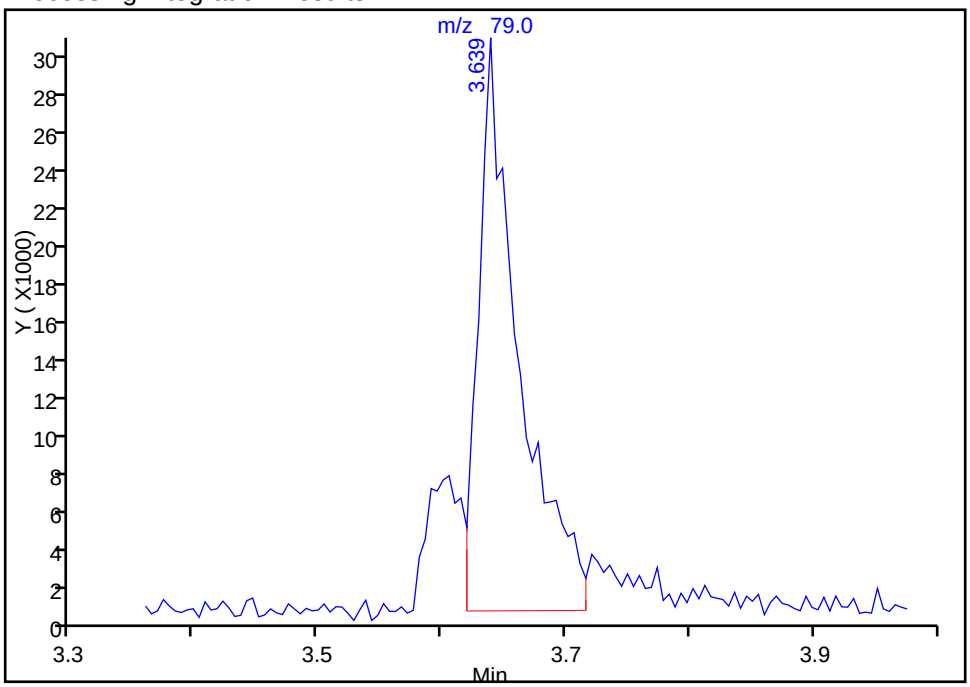
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808004.D
Injection Date: 08-Aug-2015 16:23:30 Instrument ID: A4HP9
Lims ID: std3 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

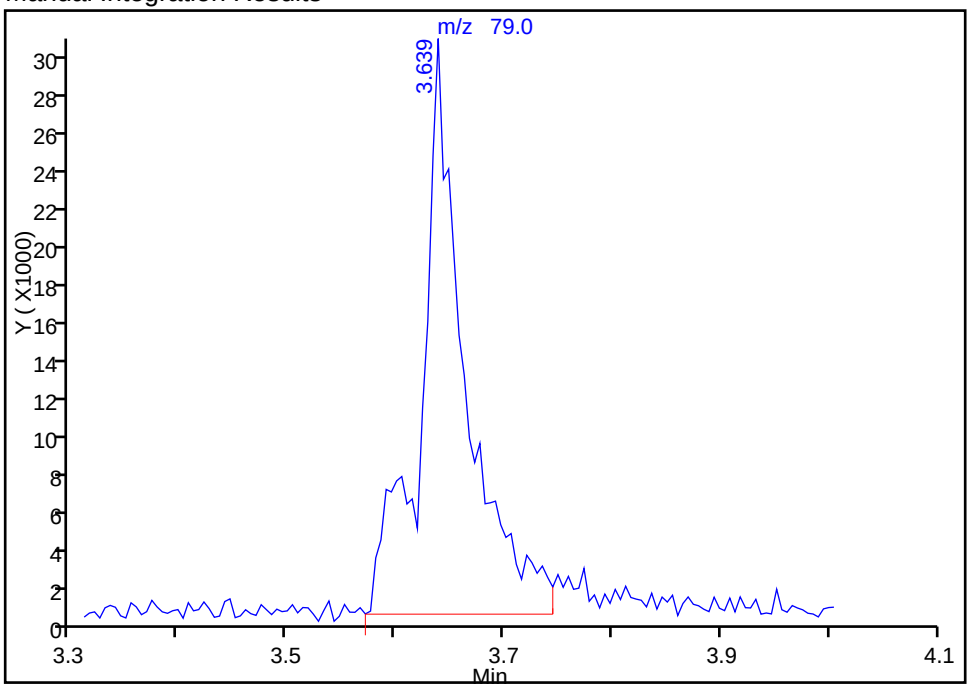
Processing Integration Results

RT: 3.64
Area: 68131
Amount: 0.887352
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 86283
Amount: 0.973439
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:17:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

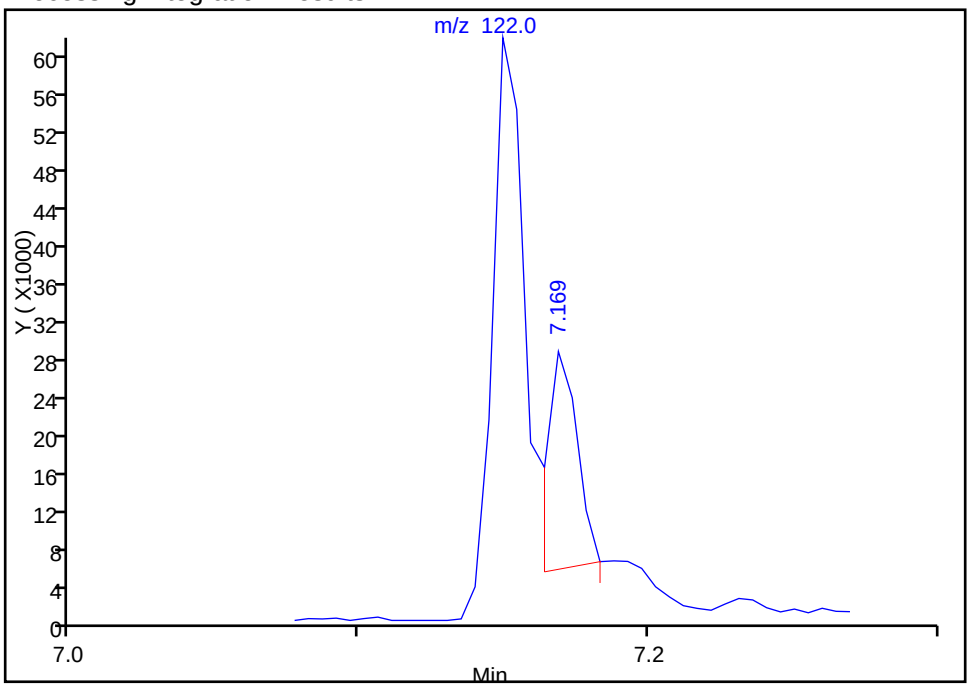
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808004.D				
Injection Date:	08-Aug-2015 16:23:30	Instrument ID:	A4HP9		
Lims ID:	std3 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

71 Benzoic acid, CAS: 65-85-0

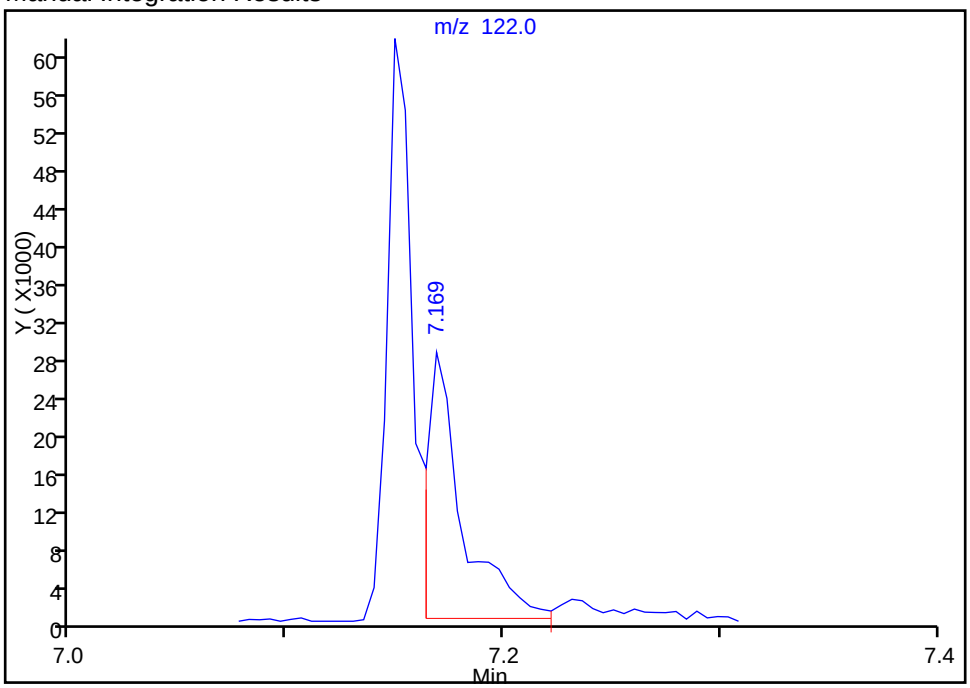
Processing Integration Results

RT: 7.17
Area: 16623
Amount: 0.834406
Amount Units: ng/ul



Manual Integration Results

RT: 7.17
Area: 31759
Amount: 1.833560
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:17:57
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D
Lims ID: std2 lst1
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 08-Aug-2015 16:48:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-005
Misc. Info.: STD2 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:40 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:22:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.376	6.379	-0.003	93	116805	4.00	4.00	
* 2 Naphthalene-d8	136	7.491	7.490	0.001	98	462595	4.00	4.00	
* 3 Acenaphthene-d10	164	8.996	8.995	0.001	91	259440	4.00	4.00	
* 4 Phenanthrene-d10	188	10.266	10.264	0.002	96	422289	4.00	4.00	
* 5 Chrysene-d12	240	12.555	12.558	-0.003	96	482278	4.00	4.00	
* 6 Perylene-d12	264	14.329	14.333	-0.004	98	414371	4.00	4.00	
$ 7 2-Fluorophenol	112	5.164	5.162	0.002	96	25274	0.5000	0.4945	
$ 8 Phenol-d5	99	6.010	6.009	0.001	94	36426	0.5000	0.5039	
$ 9 Nitrobenzene-d5	82	6.847	6.850	-0.003	85	44288	0.5000	0.4944	
$ 10 2-Fluorobiphenyl (Surr)	172	8.391	8.394	-0.003	97	45001	0.5000	0.5310	
$ 11 2,4,6-Tribromophenol	330	9.665	9.663	0.002	74	4033	0.5000	0.4780	
$ 12 Terphenyl-d14	244	11.584	11.587	-0.003	99	45071	0.5000	0.5078	
25 1,4-Dioxane	88	3.110	3.114	-0.004	60	14748	0.5000	0.5124	M
26 N-Nitrosodimethylamine	74	3.582	3.580	0.002	85	26741	0.5000	0.5408	M
27 Pyridine	79	3.639	3.643	-0.004	89	42479	0.5000	0.4965	M
41 Benzaldehyde	77	5.981	5.980	0.001	88	74541	1.00	1.10	
43 Phenol	94	6.025	6.023	0.002	96	43446	0.5000	0.5361	
44 Aniline	93	6.073	6.071	0.002	95	54582	0.5000	0.5217	
69 Bis(2-chloroethyl)ether	93	6.111	6.110	0.001	95	37125	0.5000	0.5073	
46 2-Chlorophenol	128	6.188	6.191	-0.003	86	21860	0.5000	0.4917	
243 n-Decane	57	6.222	6.220	0.002	97	31191	0.5000	0.5342	
47 1,3-Dichlorobenzene	146	6.332	6.331	0.001	85	24332	0.5000	0.5112	
48 1,4-Dichlorobenzene	146	6.390	6.393	-0.003	92	25757	0.5000	0.5296	
49 Benzyl alcohol	108	6.472	6.470	0.002	83	19405	0.5000	0.5392	
50 1,2-Dichlorobenzene	146	6.534	6.533	0.001	88	26123	0.5000	0.5663	
51 2-Methylphenol	108	6.558	6.562	-0.004	90	26079	0.5000	0.5234	
53 2,2'-oxybis[1-chloropropan	45	6.592	6.595	-0.003	97	30466	0.5000	0.5533	
52 Indene	115	6.611	6.610	0.001	88	107438	1.00	1.16	
21 3 & 4 Methylphenol	108	6.688	6.687	0.001	95	30208	0.5000	0.5752	
57 N-Nitrosodi-n-propylamine	70	6.698	6.701	-0.003	98	29538	0.5000	0.5110	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.712	6.711	0.001	89	44651	0.5000	0.5428	
61 Hexachloroethane	117	6.837	6.840	-0.003	87	14031	0.5000	0.5884	
62 Nitrobenzene	77	6.866	6.865	0.001	77	49716	0.5000	0.5548	
64 Isophorone	82	7.068	7.066	0.002	96	75328	0.5000	0.5313	
66 2-Nitrophenol	139	7.145	7.148	-0.003	74	10815	0.5000	0.5208	
65 2,4-Dimethylphenol	107	7.150	7.153	-0.003	90	28732	0.5000	0.5078	
71 Benzoic acid	122	7.164	7.192	-0.028	79	12518	1.00	1.13	
70 Bis(2-chloroethoxy)methane	93	7.227	7.230	-0.003	96	42755	0.5000	0.5469	
73 2,4-Dichlorophenol	162	7.352	7.350	0.002	91	17690	0.5000	0.4996	
74 1,2,4-Trichlorobenzene	180	7.434	7.437	-0.003	84	19714	0.5000	0.5240	
75 Naphthalene	128	7.511	7.509	0.002	95	71923	0.5000	0.5438	
76 4-Chloroaniline	127	7.525	7.528	-0.003	88	30653	0.5000	0.5374	
77 2,6-Dichlorophenol	162	7.544	7.547	-0.003	88	19008	0.5000	0.5540	
79 Hexachlorobutadiene	225	7.612	7.615	-0.003	92	12745	0.5000	0.5463	
84 Caprolactam	113	7.789	7.797	-0.008	85	16055	1.00	1.00	
86 4-Chloro-3-methylphenol	107	7.914	7.918	-0.004	85	25435	0.5000	0.5258	
87 2-Methylnaphthalene	142	8.097	8.096	0.001	87	40564	0.5000	0.5007	
88 1-Methylnaphthalene	142	8.184	8.187	-0.003	90	39197	0.5000	0.5495	
89 Hexachlorocyclopentadiene	237	8.241	8.240	0.001	91	10961	0.5000	0.5094	
91 1,2,4,5-Tetrachlorobenzene	216	8.246	8.245	0.001	93	20586	0.5000	0.5578	
92 2,4,6-Trichlorophenol	196	8.323	8.326	-0.003	87	12174	0.5000	0.5011	
93 2,4,5-Trichlorophenol	196	8.357	8.360	-0.003	82	12398	0.5000	0.4846	
98 1,1'-Biphenyl	154	8.482	8.485	-0.003	97	52017	0.5000	0.5409	
100 2-Chloronaphthalene	162	8.516	8.519	-0.003	97	40984	0.5000	0.5398	
102 2-Nitroaniline	65	8.573	8.576	-0.003	68	20049	0.5000	0.5060	
105 Dimethyl phthalate	163	8.708	8.711	-0.003	90	44777	0.5000	0.5448	
106 1,3-Dinitrobenzene	168	8.742	8.745	-0.003	78	6381	0.5000	0.4989	
107 2,6-Dinitrotoluene	165	8.766	8.769	-0.003	72	8359	0.5000	0.4596	
109 Acenaphthylene	152	8.876	8.875	0.001	98	61576	0.5000	0.5080	
110 3-Nitroaniline	138	8.920	8.918	0.002	87	10440	0.5000	0.5267	
111 2,4-Dinitrophenol	184	9.011	9.004	0.007	40	3098	1.00	1.23	
112 Acenaphthene	153	9.020	9.024	-0.004	95	42985	0.5000	0.5520	
113 4-Nitrophenol	109	9.025	9.028	-0.003	86	15348	1.00	0.9286	
114 2,4-Dinitrotoluene	165	9.117	9.115	0.002	79	10256	0.5000	0.4228	
116 Dibenzofuran	168	9.165	9.168	-0.003	95	57195	0.5000	0.5350	
119 2,3,4,6-Tetrachlorophenol	232	9.261	9.264	-0.003	79	9889	0.5000	0.4844	
121 Diethyl phthalate	149	9.299	9.303	-0.004	94	46193	0.5000	0.5723	
247 Hexadecane	57	9.304	9.307	-0.003	94	35559	0.5000	0.5394	
123 4-Chlorophenyl phenyl ethe	204	9.429	9.432	-0.003	89	22392	0.5000	0.5626	
125 4-Nitroaniline	138	9.439	9.437	0.002	77	9601	0.5000	0.4988	
126 Fluorene	166	9.458	9.461	-0.003	99	48762	0.5000	0.5454	
128 4,6-Dinitro-2-methylphenol	198	9.468	9.471	-0.003	85	6783	1.00	1.21	
131 N-Nitrosodiphenylamine	169	9.525	9.524	0.001	98	67183	1.00	1.12	
133 Azobenzene	77	9.569	9.567	0.002	93	86959	0.5000	0.5213	
132 1,2-Diphenylhydrazine	77	9.569	9.567	0.002	100	87274	0.5000	0.5232	
139 4-Bromophenyl phenyl ether	248	9.852	9.851	0.001	73	12360	0.5000	0.5479	
142 Atrazine	200	9.944	9.947	-0.003	84	25545	1.00	1.13	
141 Hexachlorobenzene	284	9.944	9.947	-0.003	72	12449	0.5000	0.5578	
244 n-Octadecane	57	10.083	10.082	0.001	83	37098	0.5000	0.5473	
143 Pentachlorophenol	266	10.093	10.096	-0.003	84	13264	1.00	0.8703	
148 Phenanthrene	178	10.285	10.284	0.001	99	71518	0.5000	0.5341	
149 Anthracene	178	10.328	10.327	0.001	99	72119	0.5000	0.5416	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.439	10.442	-0.003	96	62656	0.5000	0.5652	
154 Di-n-butyl phthalate	149	10.680	10.683	-0.003	99	68898	0.5000	0.5222	
159 Fluoranthene	202	11.300	11.303	-0.003	99	71303	0.5000	0.5275	
160 Benzidine	184	11.372	11.370	0.002	98	30025	1.00	1.28	
161 Pyrene	202	11.502	11.505	-0.003	95	75998	0.5000	0.5469	
168 Butyl benzyl phthalate	149	11.963	11.962	0.001	85	31142	0.5000	0.4802	
173 Bis(2-ethylhexyl) phthalat	149	12.444	12.443	0.001	91	37831	0.5000	0.4292	
175 3,3'-Dichlorobenzidine	252	12.478	12.476	0.002	76	39775	1.00	0.9177	
177 Benzo[a]anthracene	228	12.545	12.544	0.001	98	75992	0.5000	0.5106	
178 Chrysene	228	12.584	12.582	0.002	96	74494	0.5000	0.5335	
180 Di-n-octyl phthalate	149	13.103	13.102	0.001	99	64439	0.5000	0.4382	M
182 Benzo[b]fluoranthene	252	13.776	13.780	-0.004	97	62224	0.5000	0.5068	
183 Benzo[k]fluoranthene	252	13.810	13.813	-0.003	97	60142	0.5000	0.4845	
184 Benzo[a]pyrene	252	14.248	14.251	-0.003	78	59536	0.5000	0.5094	
188 Indeno[1,2,3-cd]pyrene	276	16.267	16.271	-0.004	93	58989	0.5000	0.4857	
189 Dibenz(a,h)anthracene	278	16.267	16.275	-0.008	87	46557	0.5000	0.4889	
190 Benzo[g,h,i]perylene	276	16.864	16.876	-0.012	96	51266	0.5000	0.5081	M
S 191 Methyl Phenols,Total	100				0			1.10	
S 245 Total Cresols	100				0			1.10	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L2 W_00006 Amount Added: 1.00 Units: mL

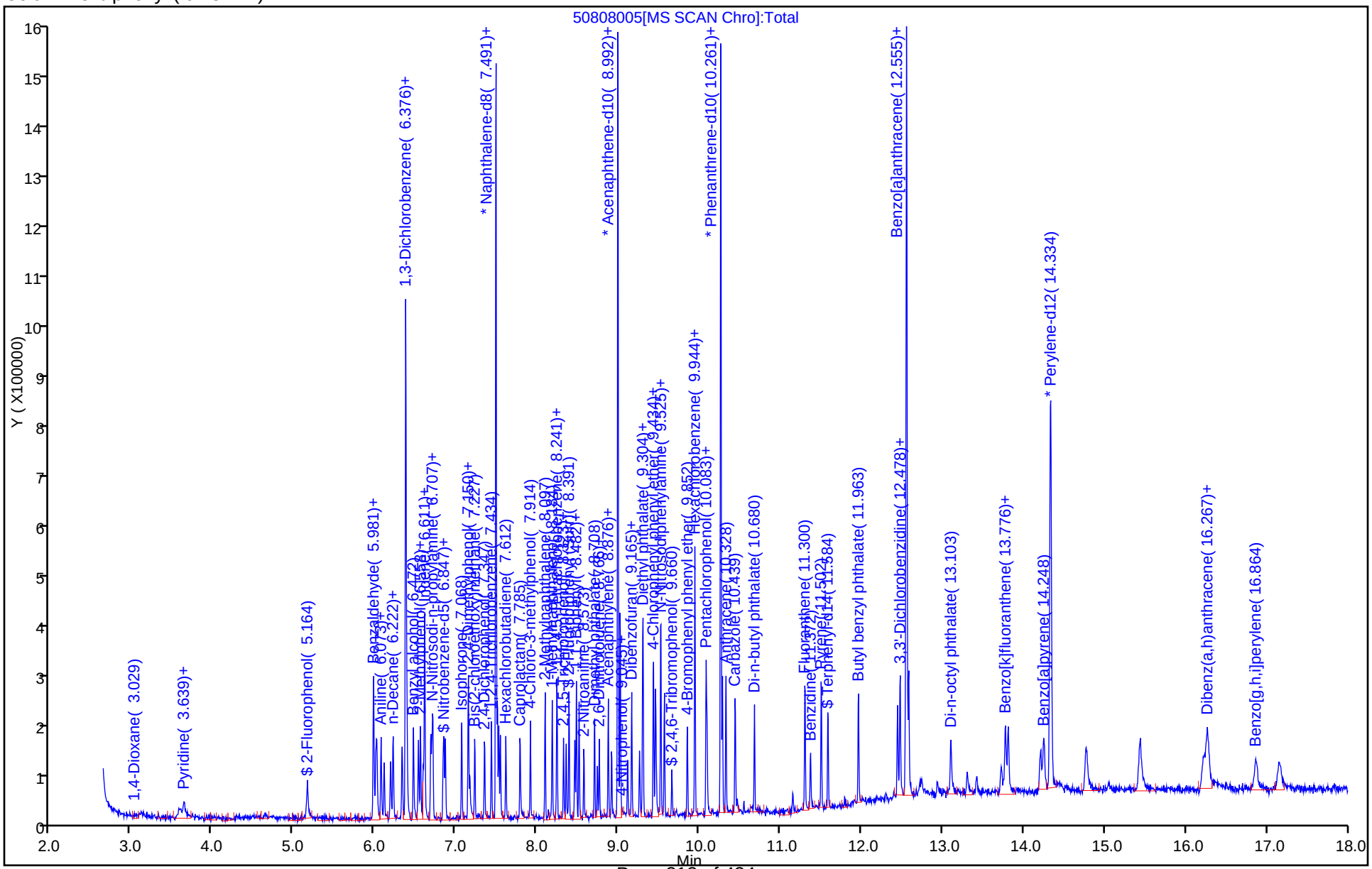
Report Date: 09-Aug-2015 17:32:42 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D

Injection Date:	08-Aug-2015 16:48:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std2 lst1			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

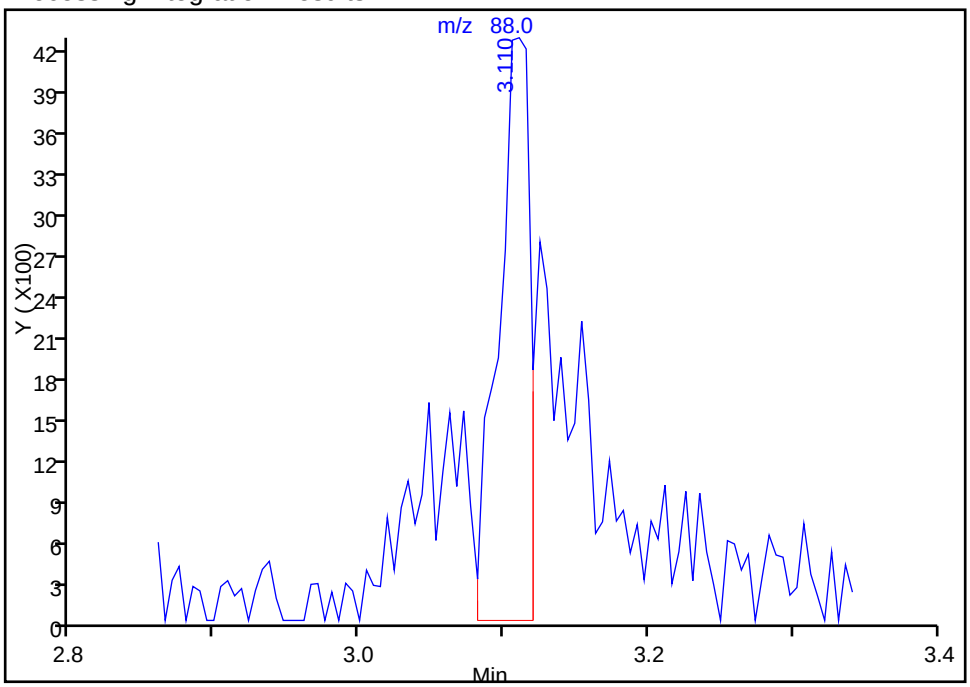
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D
Injection Date: 08-Aug-2015 16:48:30 Instrument ID: A4HP9
Lims ID: std2 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

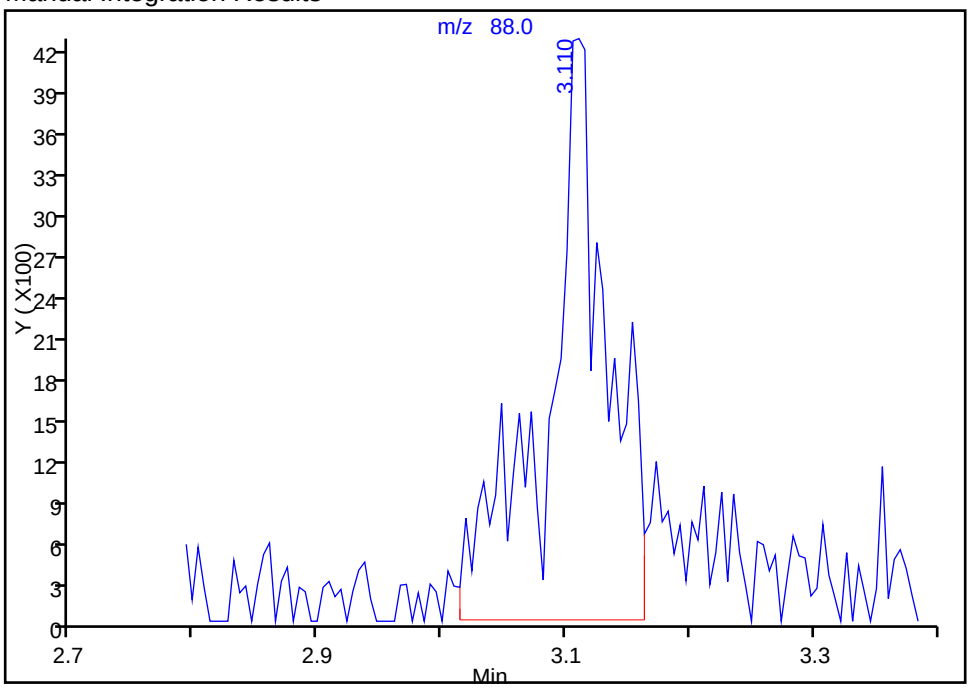
Processing Integration Results

RT: 3.11
Area: 6534
Amount: 0.275208
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 14748
Amount: 0.512399
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:22:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

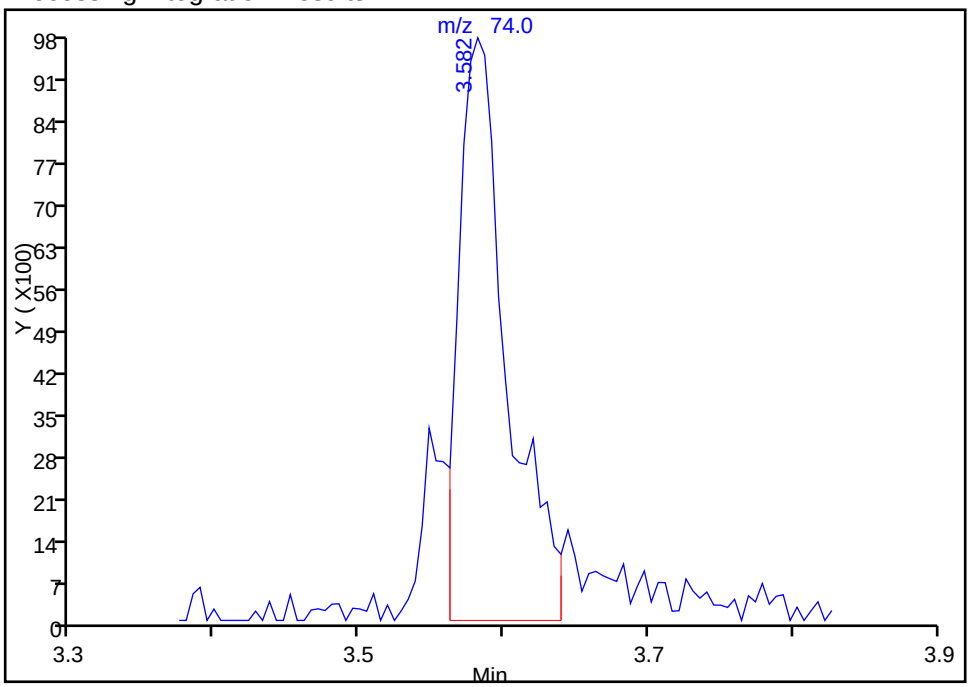
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D
Injection Date: 08-Aug-2015 16:48:30 Instrument ID: A4HP9
Lims ID: std2 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

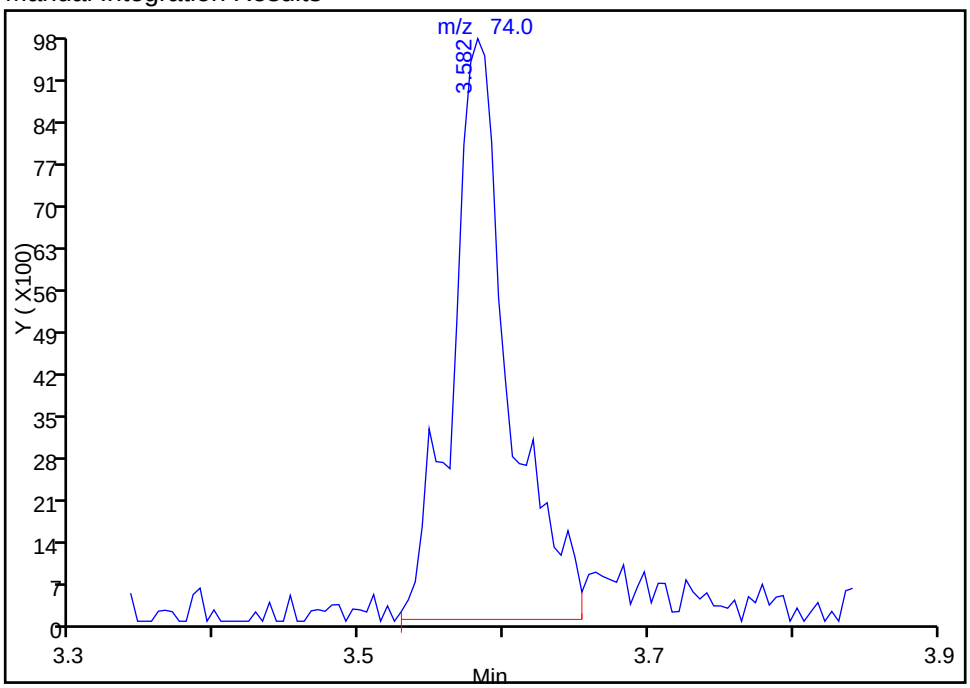
Processing Integration Results

RT: 3.58
Area: 22821
Amount: 0.507676
Amount Units: ng/ul



Manual Integration Results

RT: 3.58
Area: 26741
Amount: 0.540807
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:22:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

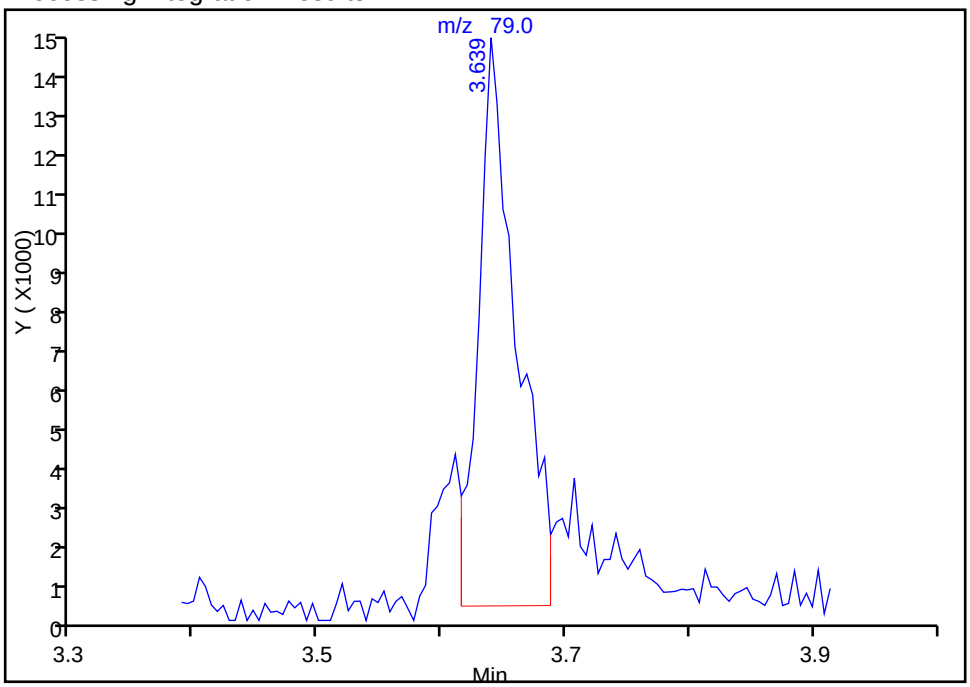
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D
Injection Date: 08-Aug-2015 16:48:30 Instrument ID: A4HP9
Lims ID: std2 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

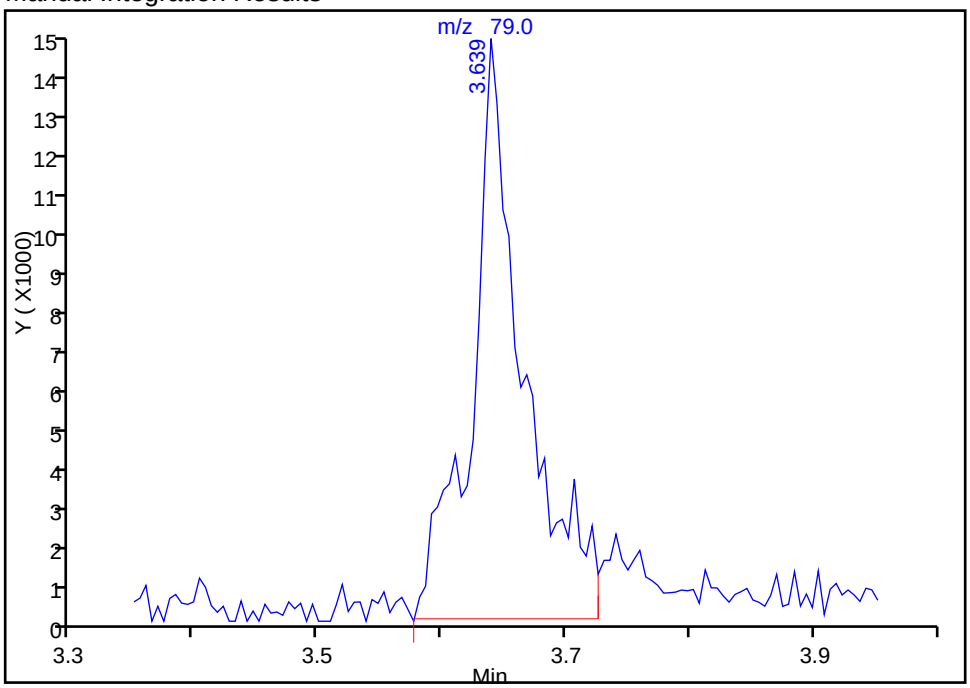
Processing Integration Results

RT: 3.64
Area: 30964
Amount: 0.405784
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 42479
Amount: 0.496469
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:22:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

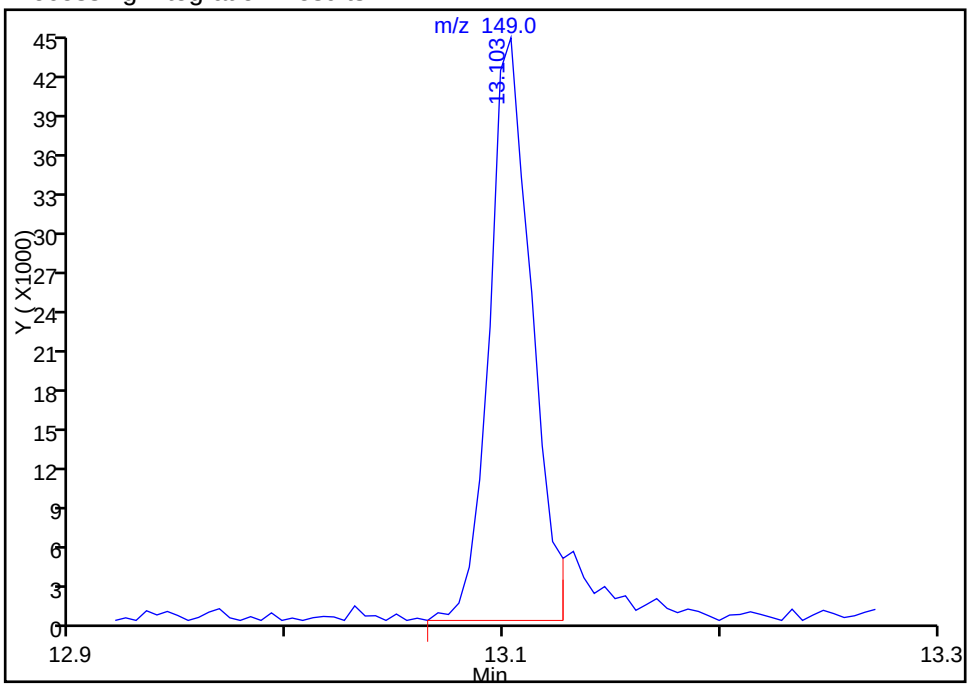
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D
Injection Date: 08-Aug-2015 16:48:30 Instrument ID: A4HP9
Lims ID: std2 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

180 Di-n-octyl phthalate, CAS: 117-84-0

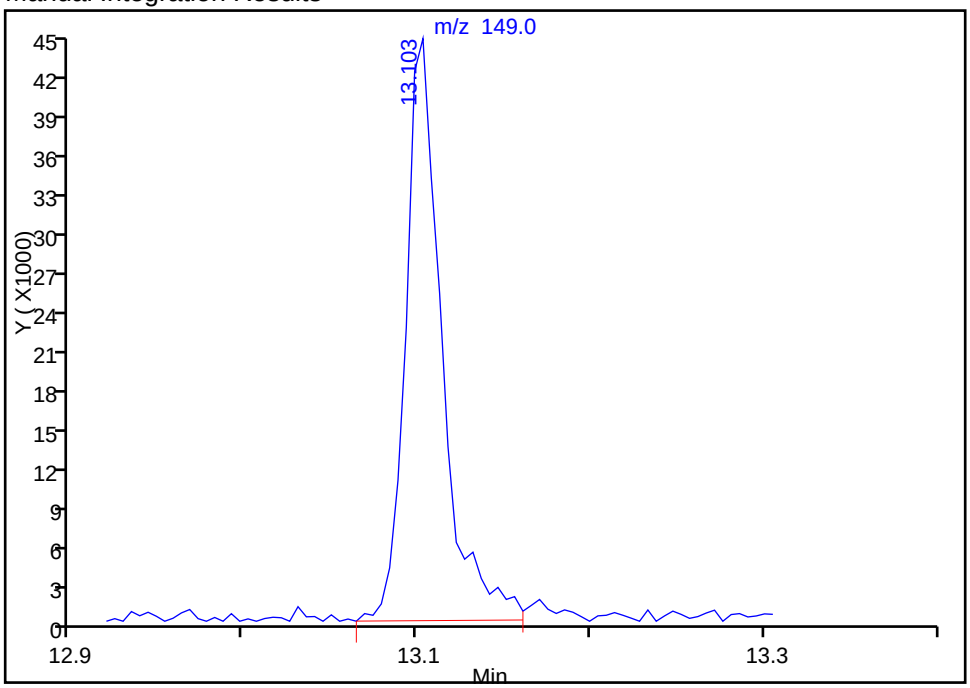
Processing Integration Results

RT: 13.10
Area: 59764
Amount: 0.409695
Amount Units: ng/ul



Manual Integration Results

RT: 13.10
Area: 64439
Amount: 0.438232
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:22:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

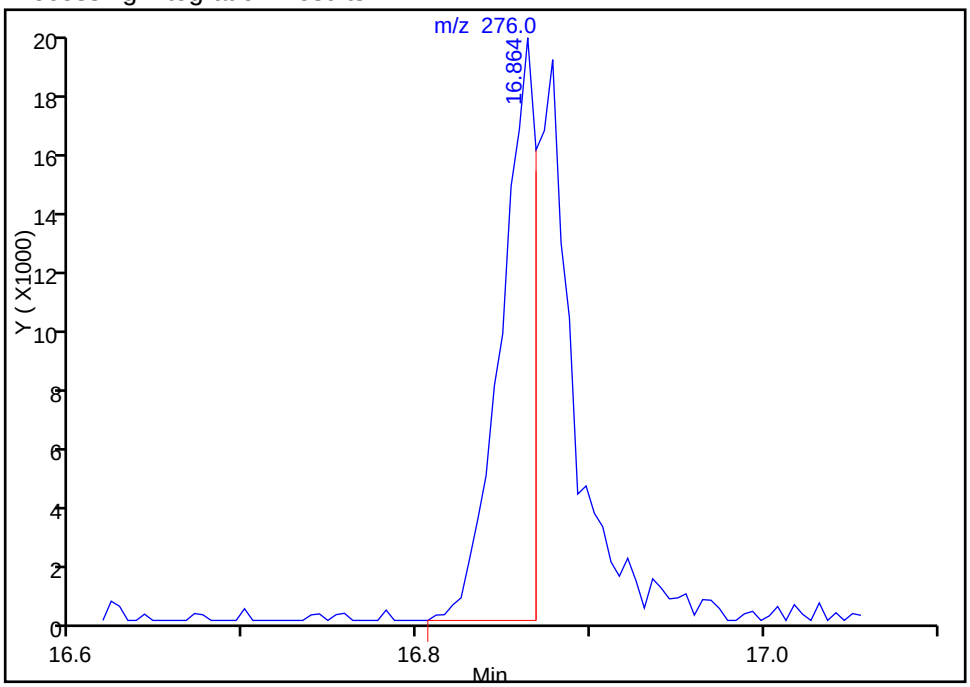
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808005.D
Injection Date: 08-Aug-2015 16:48:30 Instrument ID: A4HP9
Lims ID: std2 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

190 Benzo[g,h,i]perylene, CAS: 191-24-2

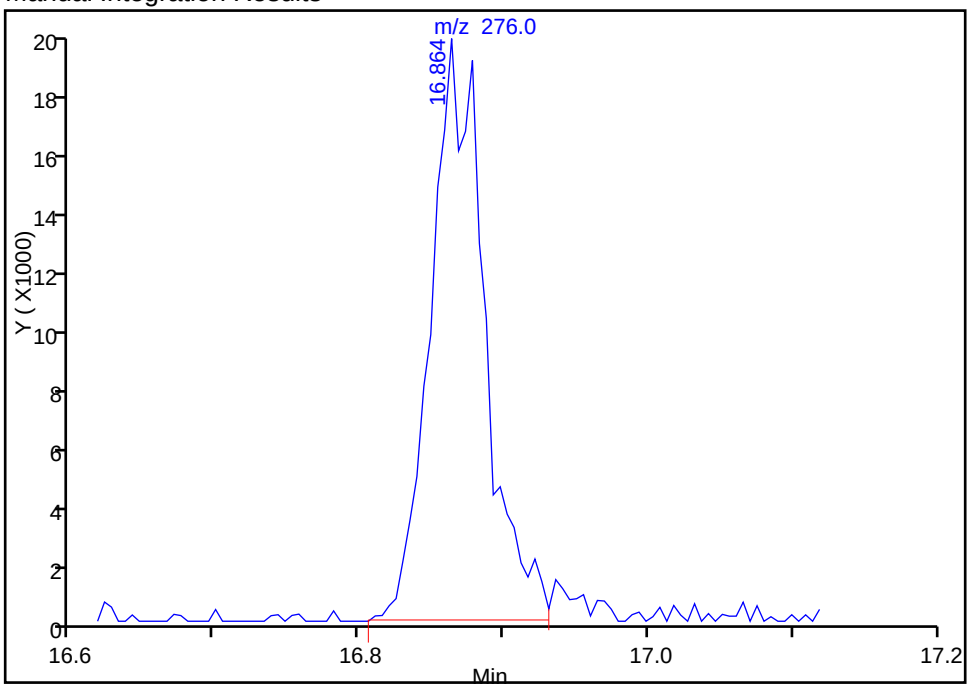
Processing Integration Results

RT: 16.86
Area: 27983
Amount: 0.298883
Amount Units: ng/ul



Manual Integration Results

RT: 16.86
Area: 51266
Amount: 0.508062
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:22:05
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808006.D
Lims ID: std1 lst1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 08-Aug-2015 17:14:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-006
Misc. Info.: STD1 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:47 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:24:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.379	6.379	0.000	93	128001	4.00	4.00	
* 2 Naphthalene-d8	136	7.490	7.490	0.000	98	494644	4.00	4.00	
* 3 Acenaphthene-d10	164	8.995	8.995	0.000	92	270993	4.00	4.00	
* 4 Phenanthrene-d10	188	10.265	10.264	0.001	97	450177	4.00	4.00	
* 5 Chrysene-d12	240	12.554	12.558	-0.004	96	494045	4.00	4.00	
* 6 Perylene-d12	264	14.333	14.333	0.000	98	439727	4.00	4.00	
$ 9 Nitrobenzene-d5	82	6.846	6.850	-0.004	76	11330	0.1000	0.1183	
$ 10 2-Fluorobiphenyl (Surr)	172	8.389	8.394	-0.005	97	11522	0.1000	0.1302	
$ 12 Terphenyl-d14	244	11.587	11.587	0.000	96	9740	0.1000	0.1071	
75 Naphthalene	128	7.505	7.509	-0.004	23	15946	0.1000	0.1128	
87 2-Methylnaphthalene	142	8.096	8.096	0.000	86	9257	0.1000	0.1068	
88 1-Methylnaphthalene	142	8.183	8.187	-0.004	89	8157	0.1000	0.1070	
98 1,1'-Biphenyl	154	8.481	8.485	-0.004	95	11953	0.1000	0.1190	
100 2-Chloronaphthalene	162	8.514	8.519	-0.005	96	9085	0.1000	0.1146	
109 Acenaphthylene	152	8.875	8.875	0.000	99	15613	0.1000	0.1233	
112 Acenaphthene	153	9.024	9.024	0.000	92	9767	0.1000	0.1201	
116 Dibenzofuran	168	9.164	9.168	-0.004	94	13001	0.1000	0.1164	
126 Fluorene	166	9.457	9.461	-0.004	97	10708	0.1000	0.1147	
141 Hexachlorobenzene	284	9.947	9.947	0.000	77	2373	0.1000	0.0997	
148 Phenanthrene	178	10.284	10.284	0.000	96	18018	0.1000	0.1262	
149 Anthracene	178	10.327	10.327	0.000	97	16669	0.1000	0.1174	
159 Fluoranthene	202	11.304	11.303	0.001	97	17139	0.1000	0.1189	
161 Pyrene	202	11.505	11.505	0.000	94	15075	0.1000	0.1059	
177 Benzo[a]anthracene	228	12.544	12.544	0.000	96	18116	0.1000	0.1188	
178 Chrysene	228	12.583	12.582	0.001	42	16381	0.1000	0.1145	
182 Benzo[b]fluoranthene	252	13.775	13.780	-0.005	90	14418	0.1000	0.1107	
183 Benzo[k]fluoranthene	252	13.814	13.813	0.001	61	12257	0.1000	0.0930	
184 Benzo[a]pyrene	252	14.251	14.251	0.000	24	11982	0.1000	0.0966	
188 Indeno[1,2,3-cd]pyrene	276	16.266	16.271	-0.005	69	13855	0.1000	0.1075	M
189 Dibenz(a,h)anthracene	278	16.271	16.275	-0.004	83	8231	0.1000	0.0815	M

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
190 Benzo[g,h,i]perylene	276	16.867	16.876	-0.009	69	10749	0.1000	0.1004	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L1 W_00006 Amount Added: 1.00 Units: mL

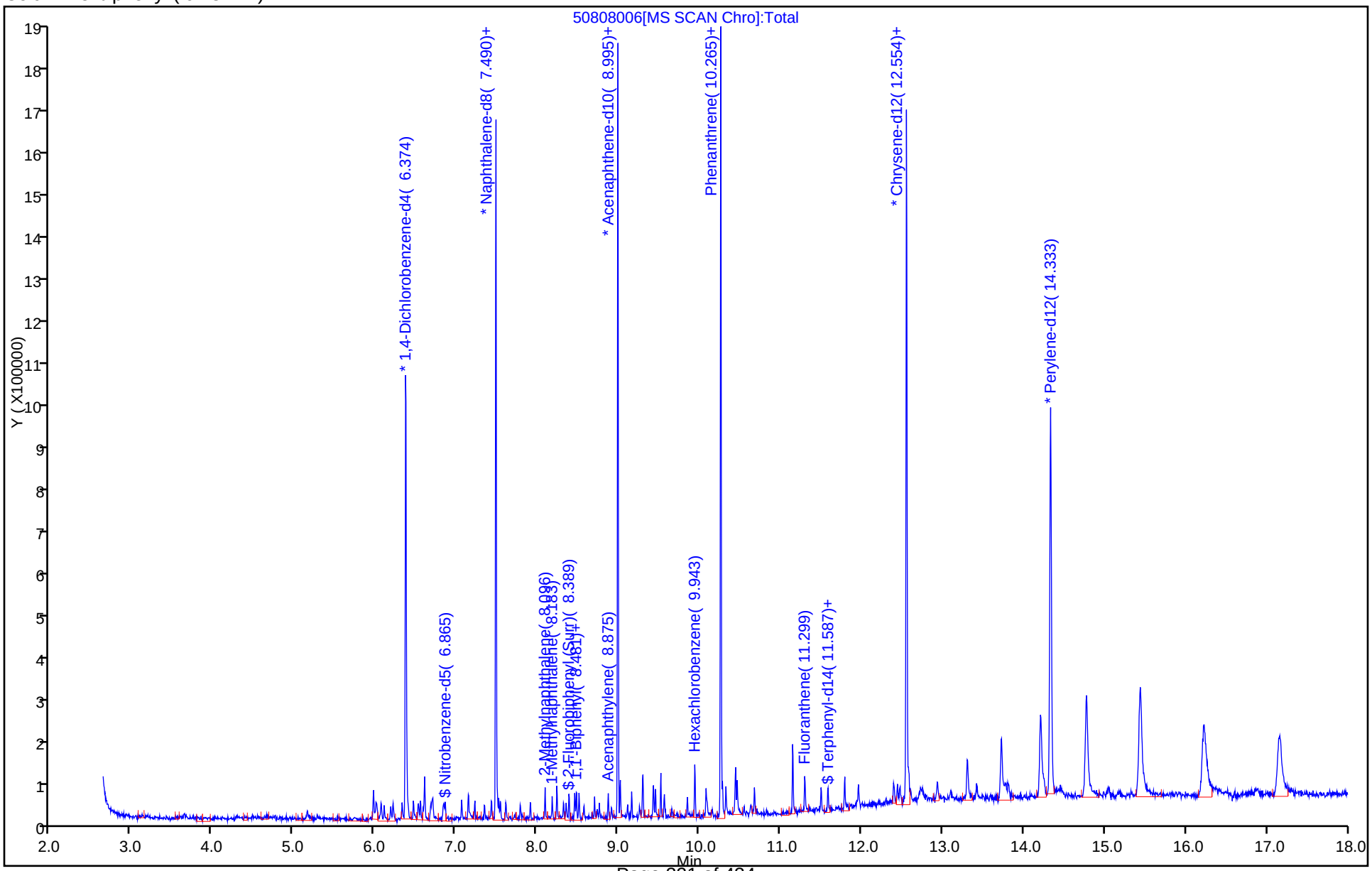
Report Date: 09-Aug-2015 17:32:48 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808006.D

Injection Date:	08-Aug-2015 17:14:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std1 lst1			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



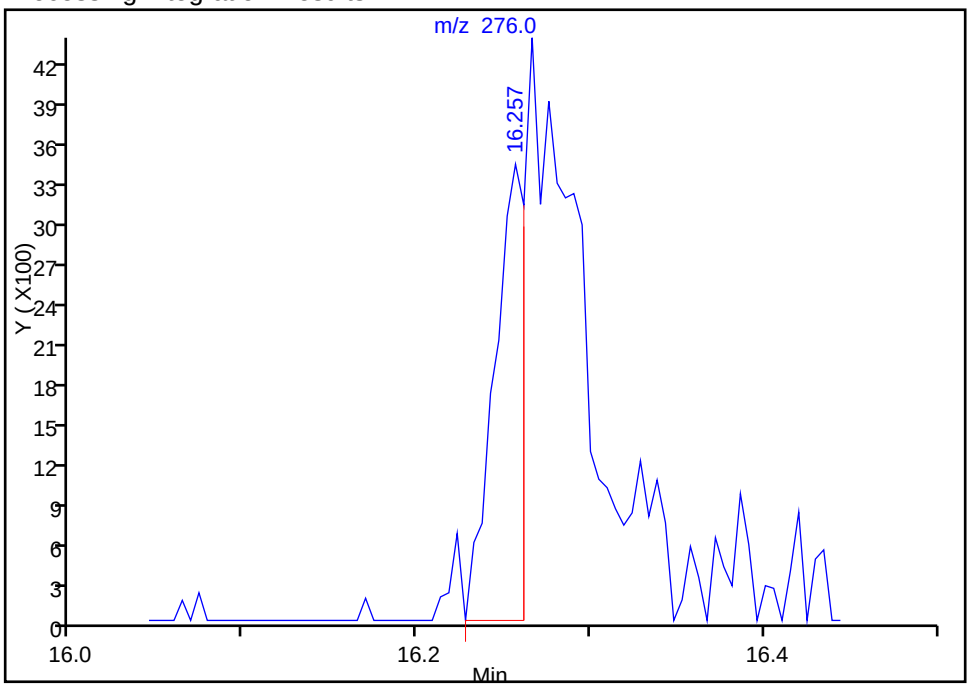
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808006.D
Injection Date: 08-Aug-2015 17:14:30 Instrument ID: A4HP9
Lims ID: std1 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

188 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

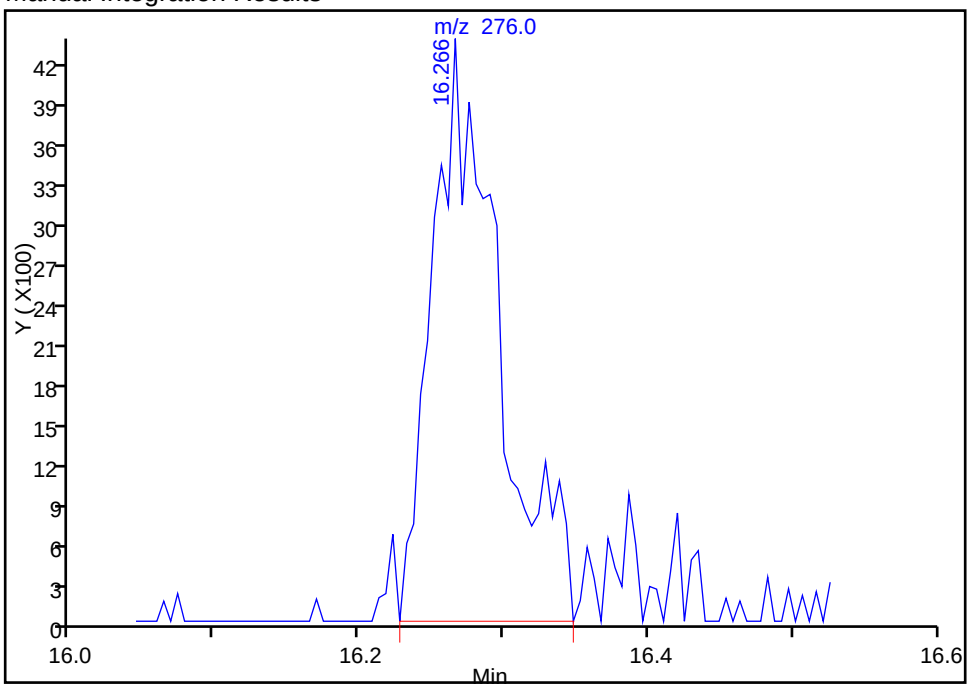
Processing Integration Results

RT: 16.26
Area: 4228
Amount: 0.082122
Amount Units: ng/ul



Manual Integration Results

RT: 16.27
Area: 13855
Amount: 0.107492
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:24:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

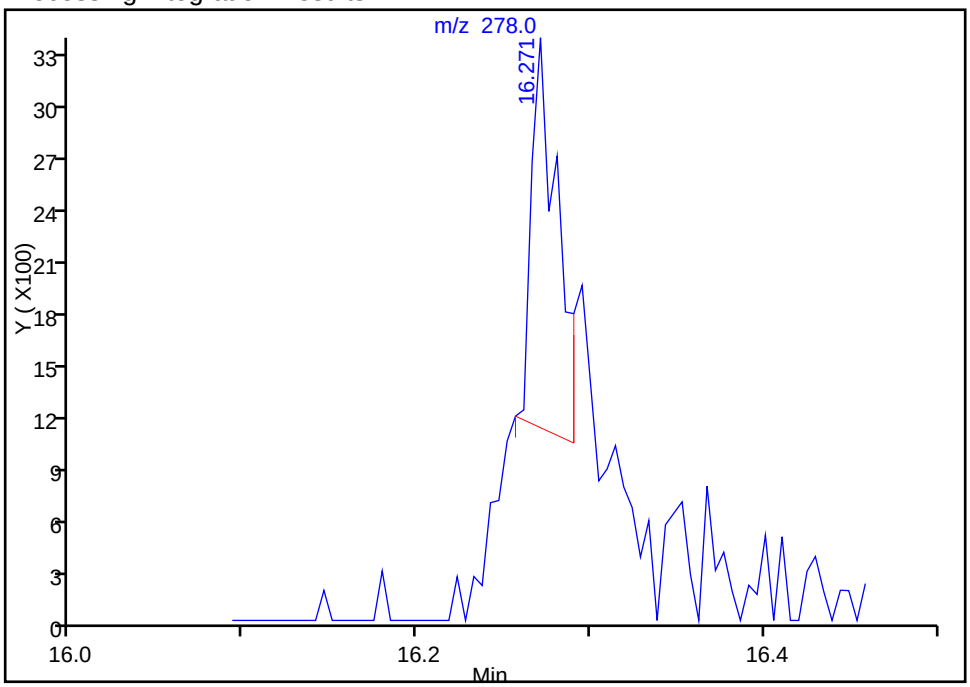
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808006.D
Injection Date: 08-Aug-2015 17:14:30 Instrument ID: A4HP9
Lims ID: std1 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

189 Dibenz(a,h)anthracene, CAS: 53-70-3

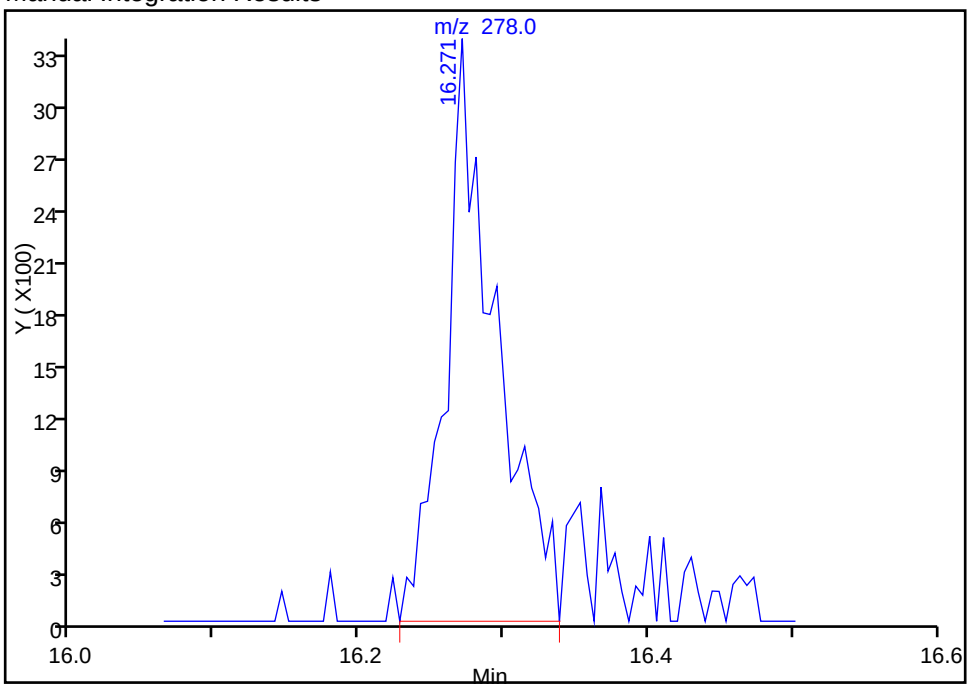
Processing Integration Results

RT: 16.27
Area: 2389
Amount: 0.084880
Amount Units: ng/ul



Manual Integration Results

RT: 16.27
Area: 8231
Amount: 0.081454
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:24:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808007.D
Lims ID: std9 lst1
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 08-Aug-2015 17:39:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-007
Misc. Info.: STD9 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:51 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:30:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.380	6.379	0.001	93	121498	4.00	4.00	
* 2 Naphthalene-d8	136	7.490	7.490	0.000	98	478012	4.00	4.00	
* 3 Acenaphthene-d10	164	8.996	8.995	0.001	91	272697	4.00	4.00	
* 4 Phenanthrene-d10	188	10.265	10.264	0.001	97	445313	4.00	4.00	
* 5 Chrysene-d12	240	12.564	12.558	0.006	96	487109	4.00	4.00	
* 6 Perylene-d12	264	14.338	14.333	0.005	98	455728	4.00	4.00	
$ 7 2-Fluorophenol	112	5.163	5.162	0.001	95	1324714	25.0	24.9	
$ 8 Phenol-d5	99	6.014	6.009	0.005	95	1767921	25.0	23.5	
$ 9 Nitrobenzene-d5	82	6.851	6.850	0.001	84	2136296	25.0	23.1	
$ 10 2-Fluorobiphenyl (Surr)	172	8.394	8.394	0.000	98	2045135	25.0	23.0	
$ 11 2,4,6-Tribromophenol	330	9.669	9.663	0.006	85	232182	25.0	26.2	
$ 12 Terphenyl-d14	244	11.587	11.587	0.000	99	2258159	25.0	25.2	
25 1,4-Dioxane	88	3.110	3.114	-0.004	86	736046	25.0	24.6	M
26 N-Nitrosodimethylamine	74	3.586	3.580	0.006	86	1327269	25.0	25.8	M
27 Pyridine	79	3.639	3.643	-0.004	90	2266197	25.0	25.5	M
41 Benzaldehyde	77	5.980	5.980	0.000	88	3087783	50.0	43.7	
43 Phenol	94	6.029	6.023	0.006	95	1942126	25.0	23.0	
44 Aniline	93	6.077	6.071	0.006	95	2555455	25.0	23.5	
69 Bis(2-chloroethyl)ether	93	6.115	6.110	0.005	97	1793963	25.0	23.6	
46 2-Chlorophenol	128	6.192	6.191	0.001	88	1113647	25.0	24.1	
243 n-Decane	57	6.221	6.220	0.001	97	1398650	25.0	23.0	
47 1,3-Dichlorobenzene	146	6.336	6.331	0.005	87	1159112	25.0	23.4	
48 1,4-Dichlorobenzene	146	6.394	6.393	0.001	83	1186440	25.0	23.5	
49 Benzyl alcohol	108	6.476	6.470	0.006	83	887274	25.0	23.7	
50 1,2-Dichlorobenzene	146	6.533	6.533	0.000	86	1123840	25.0	23.4	
51 2-Methylphenol	108	6.562	6.562	0.000	91	1217774	25.0	23.5	
53 2,2'-oxybis[1-chloropropan	45	6.596	6.595	0.001	99	1309092	25.0	22.9	
52 Indene	115	6.610	6.610	0.000	89	4348792	50.0	44.9	
21 3 & 4 Methylphenol	108	6.692	6.687	0.005	94	1264425	25.0	23.1	
57 N-Nitrosodi-n-propylamine	70	6.707	6.701	0.006	99	1391133	25.0	23.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.716	6.711	0.005	88	1980829	25.0	23.1	
61 Hexachloroethane	117	6.841	6.840	0.001	89	578528	25.0	23.3	
62 Nitrobenzene	77	6.870	6.865	0.005	78	2179651	25.0	23.5	
64 Isophorone	82	7.072	7.066	0.006	97	3429080	25.0	23.4	
66 2-Nitrophenol	139	7.149	7.148	0.001	83	535538	25.0	25.0	
65 2,4-Dimethylphenol	107	7.154	7.153	0.001	95	1346298	25.0	23.0	
71 Benzoic acid	122	7.245	7.192	0.053	82	1340080	50.0	48.8	
70 Bis(2-chloroethoxy)methane	93	7.231	7.230	0.001	98	1845741	25.0	22.8	
73 2,4-Dichlorophenol	162	7.351	7.350	0.001	90	858054	25.0	23.5	
74 1,2,4-Trichlorobenzene	180	7.437	7.437	0.000	88	910611	25.0	23.4	
75 Naphthalene	128	7.510	7.509	0.001	98	3078018	25.0	22.5	
76 4-Chloroaniline	127	7.529	7.528	0.001	89	1348642	25.0	22.9	
77 2,6-Dichlorophenol	162	7.548	7.547	0.001	87	820504	25.0	23.1	
79 Hexachlorobutadiene	225	7.615	7.615	0.000	95	567647	25.0	23.5	
84 Caprolactam	113	7.832	7.797	0.035	85	811192	50.0	49.0	M
86 4-Chloro-3-methylphenol	107	7.923	7.918	0.005	86	1175721	25.0	23.5	
87 2-Methylnaphthalene	142	8.101	8.096	0.005	89	1926631	25.0	23.0	
88 1-Methylnaphthalene	142	8.188	8.187	0.001	90	1704865	25.0	23.1	
89 Hexachlorocyclopentadiene	237	8.241	8.240	0.001	96	599379	25.0	26.5	
91 1,2,4,5-Tetrachlorobenzene	216	8.245	8.245	0.000	96	929873	25.0	24.0	
92 2,4,6-Trichlorophenol	196	8.327	8.326	0.001	90	608453	25.0	23.8	
93 2,4,5-Trichlorophenol	196	8.361	8.360	0.001	86	629967	25.0	23.4	
98 1,1'-Biphenyl	154	8.486	8.485	0.001	98	2285357	25.0	22.6	
100 2-Chloronaphthalene	162	8.519	8.519	0.000	98	1825114	25.0	22.9	
102 2-Nitroaniline	65	8.582	8.576	0.006	70	1021102	25.0	24.5	
105 Dimethyl phthalate	163	8.712	8.711	0.001	92	1973816	25.0	22.8	
106 1,3-Dinitrobenzene	168	8.750	8.745	0.005	77	354552	25.0	26.4	
107 2,6-Dinitrotoluene	165	8.770	8.769	0.001	77	473719	25.0	24.8	
109 Acenaphthylene	152	8.880	8.875	0.005	98	2928044	25.0	23.0	
110 3-Nitroaniline	138	8.923	8.918	0.005	85	514581	25.0	24.7	
111 2,4-Dinitrophenol	184	9.015	9.004	0.011	93	540489	50.0	52.9	
112 Acenaphthene	153	9.024	9.024	0.000	98	1813794	25.0	22.2	
113 4-Nitrophenol	109	9.039	9.028	0.011	85	907419	50.0	52.2	
114 2,4-Dinitrotoluene	165	9.121	9.115	0.006	79	666967	25.0	26.2	
116 Dibenzofuran	168	9.169	9.168	0.001	95	2540447	25.0	22.6	
119 2,3,4,6-Tetrachlorophenol	232	9.265	9.264	0.001	78	528287	25.0	24.6	
121 Diethyl phthalate	149	9.303	9.303	0.000	96	2048863	25.0	24.1	
247 Hexadecane	57		9.307				ND	ND	
123 4-Chlorophenyl phenyl ethe	204	9.433	9.432	0.001	91	962626	25.0	23.0	
125 4-Nitroaniline	138	9.452	9.437	0.015	74	497107	25.0	24.6	
126 Fluorene	166		9.461				ND	ND	
128 4,6-Dinitro-2-methylphenol	198	9.476	9.471	0.005	94	676095	50.0	48.4	
131 N-Nitrosodiphenylamine	169	9.529	9.524	0.005	98	2821761	50.0	44.5	
133 Azobenzene	77	9.573	9.567	0.006	93	3813755	25.0	21.7	
132 1,2-Diphenylhydrazine	77	9.573	9.567	0.006	99	3813755	25.0	21.7	
139 4-Bromophenyl phenyl ether	248	9.856	9.851	0.005	75	524932	25.0	22.1	
142 Atrazine	200	9.957	9.947	0.010	90	1106294	50.0	46.6	
141 Hexachlorobenzene	284	9.948	9.947	0.001	90	547412	25.0	23.3	
244 n-Octadecane	57		10.082				ND	ND	
143 Pentachlorophenol	266	10.097	10.096	0.001	90	848987	50.0	52.8	
148 Phenanthrene	178	10.289	10.284	0.005	99	3152575	25.0	22.3	
149 Anthracene	178	10.332	10.327	0.005	98	3188107	25.0	22.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.448	10.442	0.006	97	2607546	25.0	22.3	
154 Di-n-butyl phthalate	149	10.683	10.683	0.000	99	3523798	25.0	25.3	
159 Fluoranthene	202	11.304	11.303	0.001	100	3367991	25.0	23.6	
160 Benzidine	184	11.376	11.370	0.006	99	3772367	50.0	49.0	
161 Pyrene	202	11.511	11.505	0.006	96	3575435	25.0	25.5	
168 Butyl benzyl phthalate	149	11.963	11.962	0.001	89	1685604	25.0	25.7	
173 Bis(2-ethylhexyl) phthalat	149	12.448	12.443	0.005	95	2323018	25.0	26.1	
175 3,3'-Dichlorobenzidine	252	12.487	12.476	0.011	75	2337877	50.0	53.4	
177 Benzo[a]anthracene	228	12.549	12.544	0.005	98	3605677	25.0	24.0	
178 Chrysene	228	12.588	12.582	0.006	97	3345108	25.0	23.7	
180 Di-n-octyl phthalate	149	13.107	13.102	0.005	99	4145293	25.0	25.6	
182 Benzo[b]fluoranthene	252	13.790	13.780	0.010	96	3203877	25.0	23.7	
183 Benzo[k]fluoranthene	252	13.824	13.813	0.011	98	3449294	25.0	25.3	
184 Benzo[a]pyrene	252	14.266	14.251	0.015	78	3193194	25.0	24.8	
188 Indeno[1,2,3-cd]pyrene	276	16.300	16.271	0.029	97	3236554	25.0	24.2	
189 Dibenz(a,h)anthracene	278	16.305	16.275	0.030	88	2672732	25.0	25.5	
190 Benzo[g,h,i]perylene	276	16.901	16.876	0.025	98	2635895	25.0	23.8	
S 191 Methyl Phenols,Total	100				0			46.6	
S 245 Total Cresols	100				0			46.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L9 W_00006 Amount Added: 1.00 Units: mL

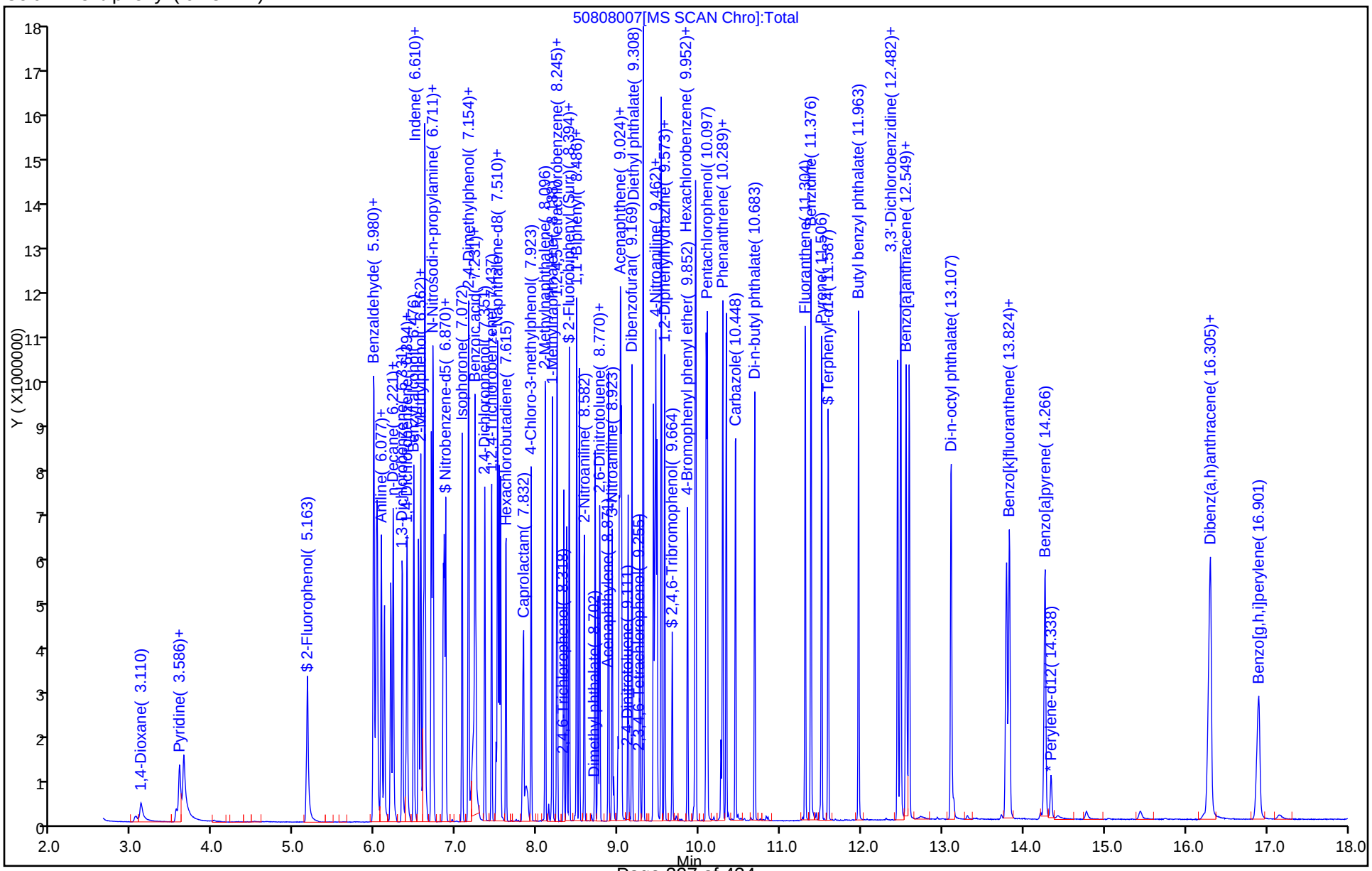
Report Date: 09-Aug-2015 17:32:52 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808007.D

Injection Date:	08-Aug-2015 17:39:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std9 lst1			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

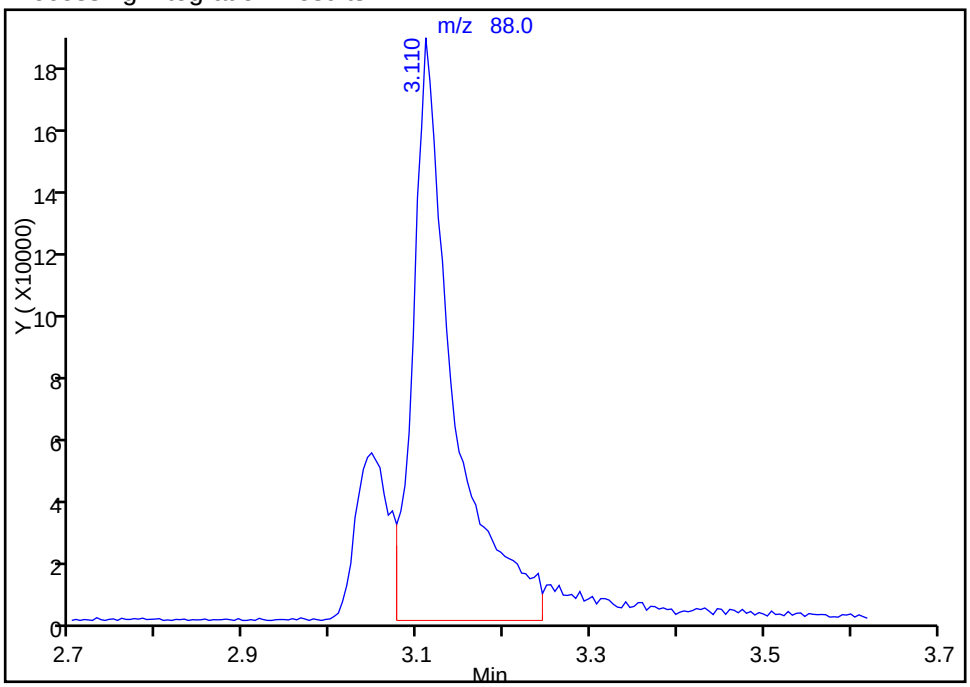
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808007.D
Injection Date: 08-Aug-2015 17:39:30 Instrument ID: A4HP9
Lims ID: std9 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

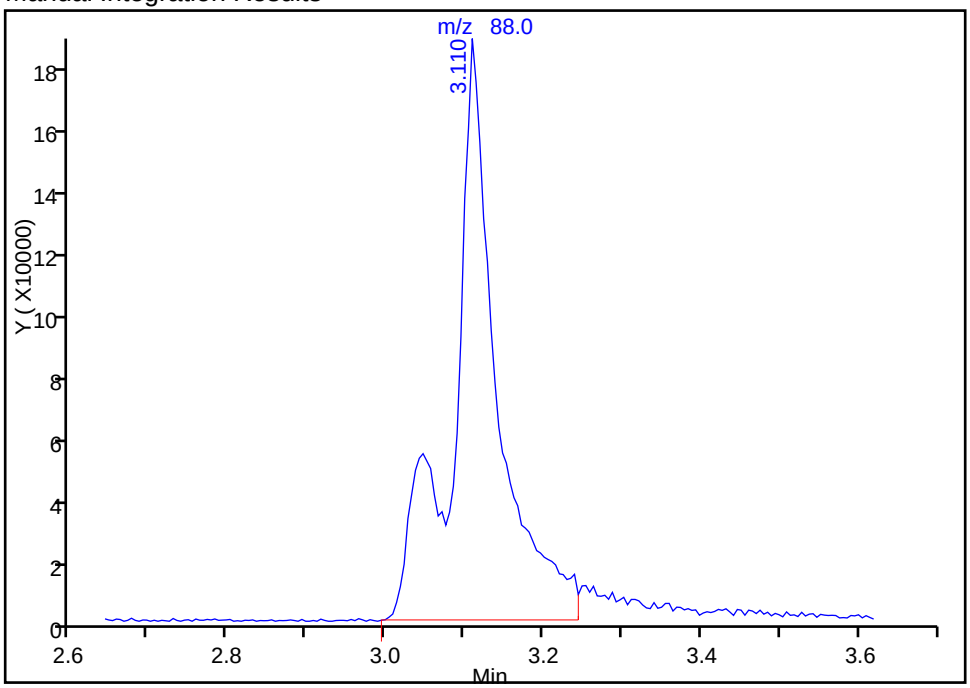
Processing Integration Results

RT: 3.11
Area: 604257
Amount: 22.247258
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 736046
Amount: 24.585113
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:30:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

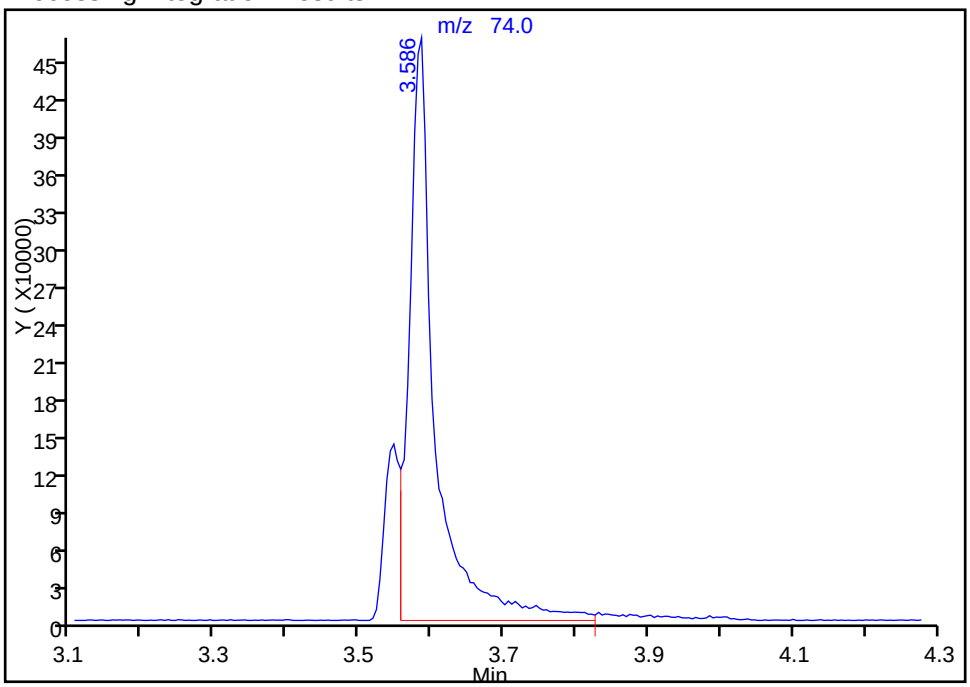
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808007.D
Injection Date: 08-Aug-2015 17:39:30 Instrument ID: A4HP9
Lims ID: std9 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

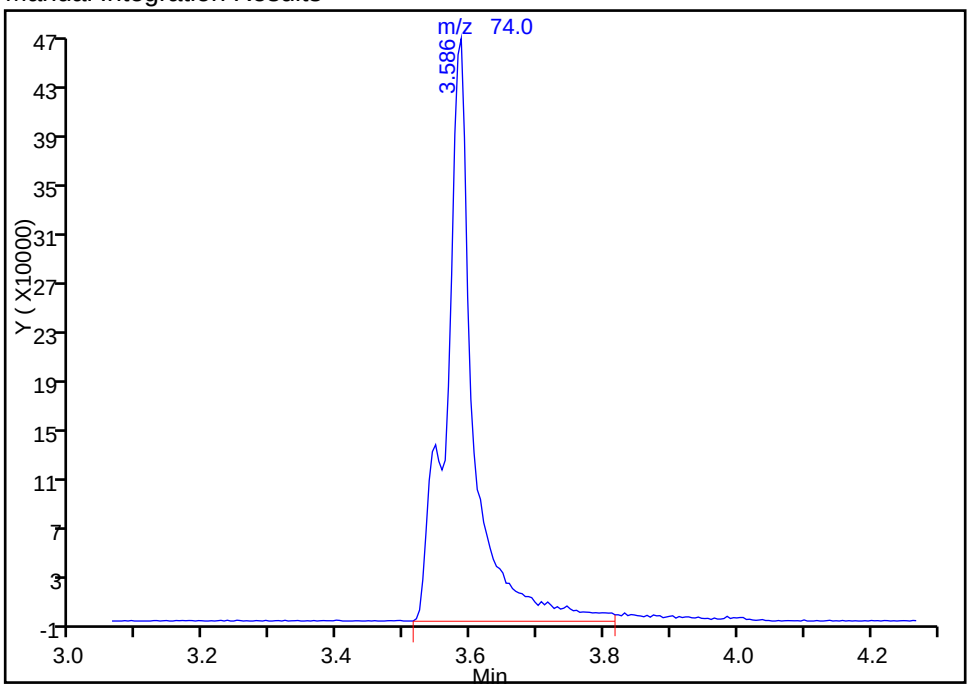
Processing Integration Results

RT: 3.59
Area: 1146828
Amount: 24.003594
Amount Units: ng/ul



Manual Integration Results

RT: 3.59
Area: 1327269
Amount: 25.805732
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:30:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

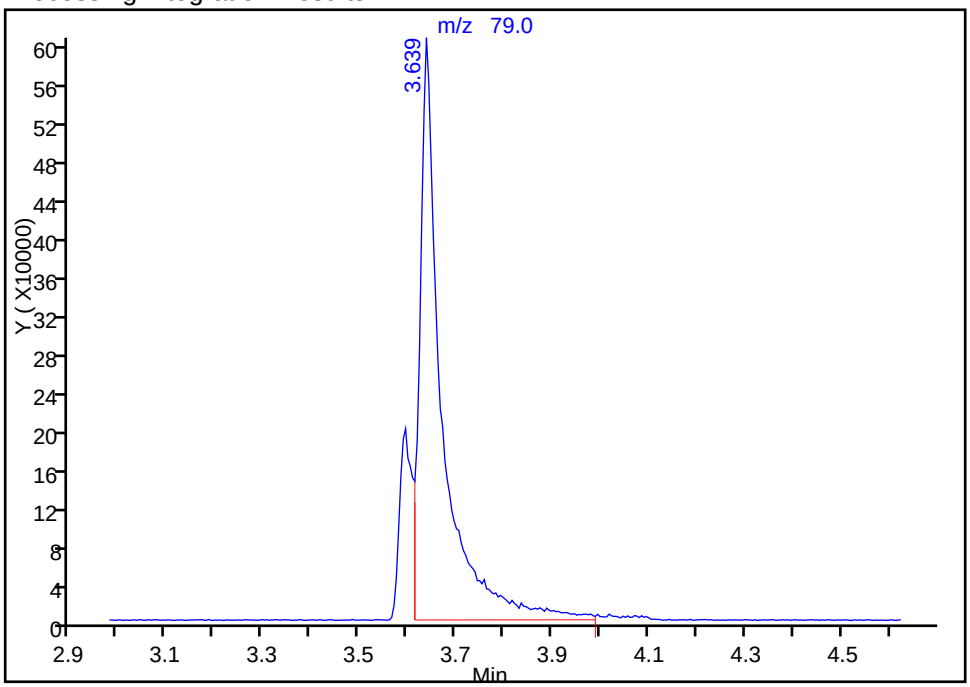
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808007.D				
Injection Date:	08-Aug-2015 17:39:30	Instrument ID:	A4HP9		
Lims ID:	std9 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

27 Pyridine, CAS: 110-86-1

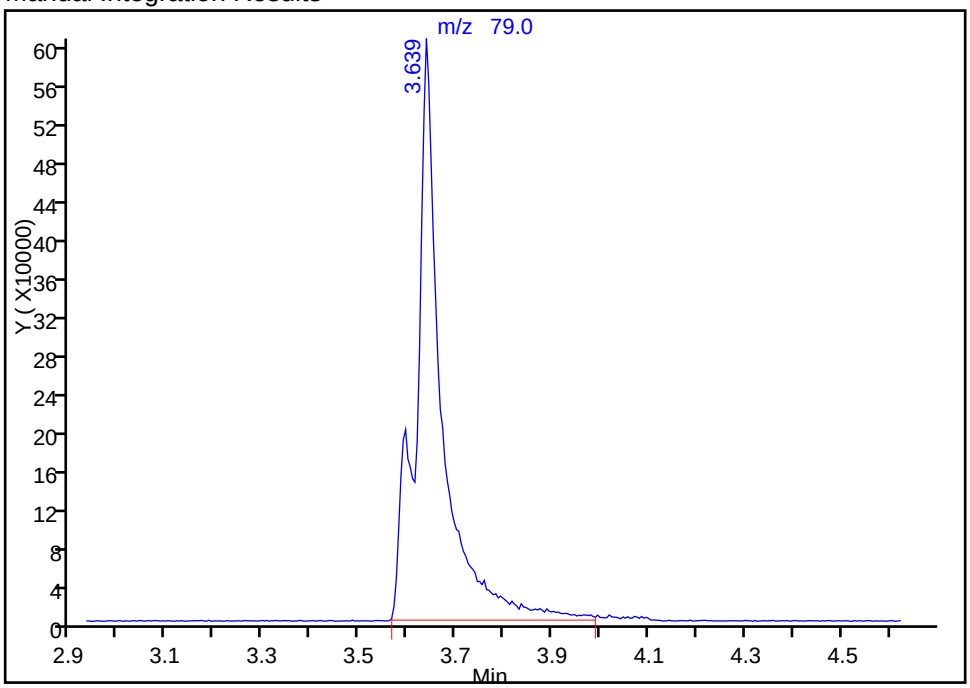
Processing Integration Results

RT: 3.64
Area: 1942947
Amount: 23.588926
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 2266197
Amount: 25.462906
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:30:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

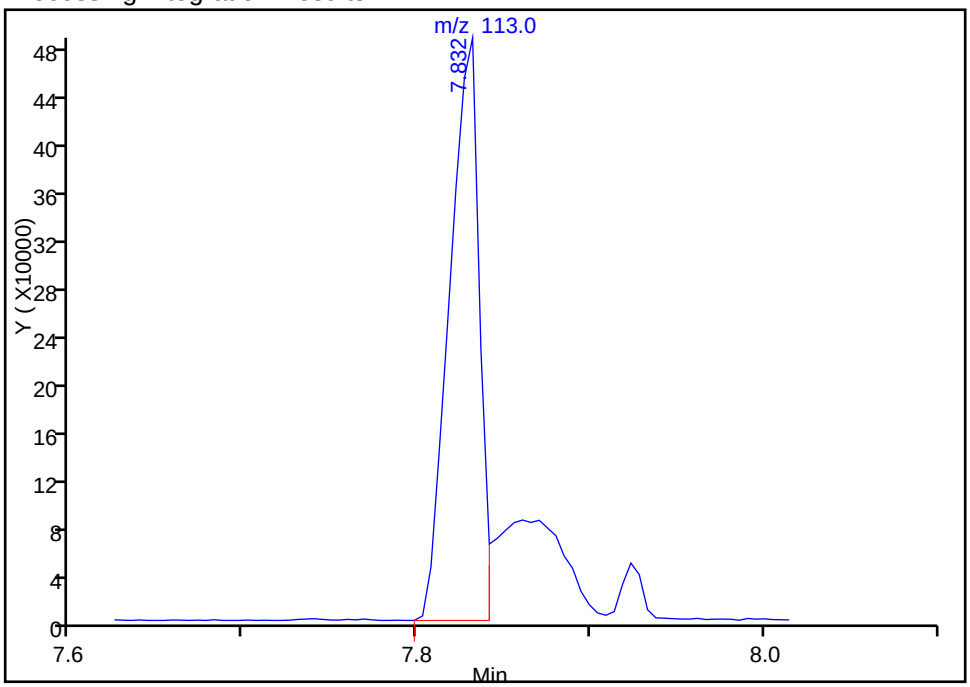
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808007.D				
Injection Date:	08-Aug-2015 17:39:30	Instrument ID:	A4HP9		
Lims ID:	std9 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

84 Caprolactam, CAS: 105-60-2

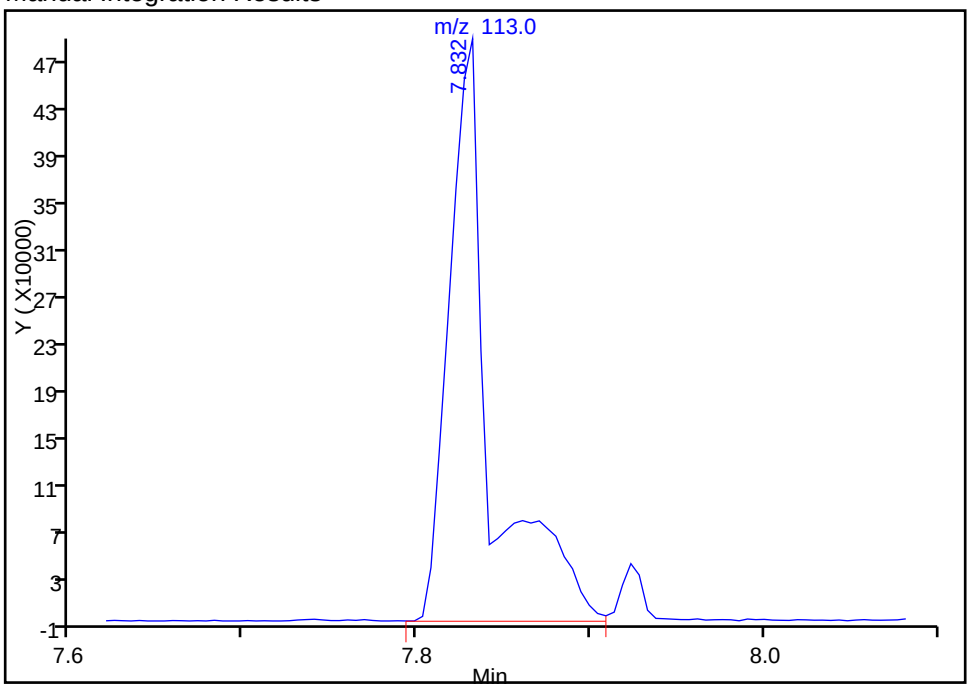
Processing Integration Results

RT: 7.83
Area: 587018
Amount: 39.958210
Amount Units: ng/ul



Manual Integration Results

RT: 7.83
Area: 811192
Amount: 49.035423
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:30:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808008.D
Lims ID: std8 lst1
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 08-Aug-2015 18:05:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-008
Misc. Info.: STD8 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:33:01 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:33:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.379	6.379	0.000	93	123601	4.00	4.00	
* 2 Naphthalene-d8	136	7.490	7.490	0.000	98	490711	4.00	4.00	
* 3 Acenaphthene-d10	164	8.995	8.995	0.000	90	289530	4.00	4.00	
* 4 Phenanthrene-d10	188	10.265	10.264	0.001	97	450626	4.00	4.00	
* 5 Chrysene-d12	240	12.563	12.558	0.005	97	499462	4.00	4.00	
* 6 Perylene-d12	264	14.338	14.333	0.005	98	463432	4.00	4.00	
$ 7 2-Fluorophenol	112	5.162	5.162	0.000	95	1112998	20.0	20.6	
$ 8 Phenol-d5	99	6.014	6.009	0.005	96	1501529	20.0	19.6	
$ 9 Nitrobenzene-d5	82	6.850	6.850	0.000	83	1829936	20.0	19.3	
$ 10 2-Fluorobiphenyl (Surr)	172	8.394	8.394	0.000	98	1697107	20.0	17.9	
$ 11 2,4,6-Tribromophenol	330	9.663	9.663	0.000	79	185109	20.0	19.7	
$ 12 Terphenyl-d14	244	11.587	11.587	0.000	99	1874579	20.0	20.4	
25 1,4-Dioxane	88	3.109	3.114	-0.005	87	626504	20.0	20.6	M
26 N-Nitrosodimethylamine	74	3.580	3.580	0.000	88	1060851	20.0	20.3	M
27 Pyridine	79	3.638	3.643	-0.005	90	1911219	20.0	21.1	M
41 Benzaldehyde	77	5.980	5.980	0.000	87	2706938	40.0	37.6	
43 Phenol	94	6.023	6.023	0.000	94	1647547	20.0	19.2	
44 Aniline	93	6.076	6.071	0.005	95	2171115	20.0	19.6	
69 Bis(2-chloroethyl)ether	93	6.115	6.110	0.005	97	1532066	20.0	19.8	
46 2-Chlorophenol	128	6.192	6.191	0.001	87	932802	20.0	19.8	
243 n-Decane	57	6.220	6.220	0.000	97	1176546	20.0	19.0	
47 1,3-Dichlorobenzene	146	6.336	6.331	0.005	87	977962	20.0	19.4	
48 1,4-Dichlorobenzene	146	6.393	6.393	0.000	82	1001801	20.0	19.5	
49 Benzyl alcohol	108	6.475	6.470	0.005	83	765211	20.0	20.1	
50 1,2-Dichlorobenzene	146	6.533	6.533	0.000	85	958149	20.0	19.6	
51 2-Methylphenol	108	6.562	6.562	0.000	90	1026399	20.0	19.5	
53 2,2'-oxybis[1-chloropropan	45	6.595	6.595	0.000	99	1100642	20.0	18.9	
52 Indene	115	6.615	6.610	0.005	89	3708975	40.0	37.7	
21 3 & 4 Methylphenol	108	6.692	6.687	0.005	95	1070876	20.0	19.3	
57 N-Nitrosodi-n-propylamine	70	6.706	6.701	0.005	99	1171918	20.0	19.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.716	6.711	0.005	88	1667471	20.0	19.2	
61 Hexachloroethane	117	6.841	6.840	0.001	90	488197	20.0	19.3	
62 Nitrobenzene	77	6.870	6.865	0.005	78	1834318	20.0	19.3	
64 Isophorone	82	7.072	7.066	0.006	97	2919990	20.0	19.4	
66 2-Nitrophenol	139	7.148	7.148	0.000	77	432947	20.0	19.7	
65 2,4-Dimethylphenol	107	7.153	7.153	0.000	94	1152376	20.0	19.2	
71 Benzoic acid	122	7.240	7.192	0.048	83	1144225	40.0	40.7	
70 Bis(2-chloroethoxy)methane	93	7.230	7.230	0.000	98	1545742	20.0	18.6	
73 2,4-Dichlorophenol	162	7.350	7.350	0.000	90	733732	20.0	19.5	
74 1,2,4-Trichlorobenzene	180	7.437	7.437	0.000	88	770941	20.0	19.3	
75 Naphthalene	128	7.509	7.509	0.000	98	2624301	20.0	18.7	
76 4-Chloroaniline	127	7.528	7.528	0.000	88	1154207	20.0	19.1	
77 2,6-Dichlorophenol	162	7.548	7.547	0.001	87	700348	20.0	19.2	
79 Hexachlorobutadiene	225	7.615	7.615	0.000	95	477023	20.0	19.3	
84 Caprolactam	113	7.822	7.797	0.025	85	686532	40.0	40.4	M
86 4-Chloro-3-methylphenol	107	7.923	7.918	0.005	86	1001319	20.0	19.5	
87 2-Methylnaphthalene	142	8.101	8.096	0.005	89	1630365	20.0	19.0	
88 1-Methylnaphthalene	142	8.187	8.187	0.000	89	1429672	20.0	18.9	
89 Hexachlorocyclopentadiene	237	8.240	8.240	0.000	95	493493	20.0	20.6	
91 1,2,4,5-Tetrachlorobenzene	216	8.245	8.245	0.000	95	758872	20.0	18.4	
92 2,4,6-Trichlorophenol	196	8.327	8.326	0.001	91	524144	20.0	19.3	
93 2,4,5-Trichlorophenol	196	8.360	8.360	0.000	86	536814	20.0	18.8	
98 1,1'-Biphenyl	154	8.485	8.485	0.000	97	1951610	20.0	18.2	
100 2-Chloronaphthalene	162	8.519	8.519	0.000	98	1563926	20.0	18.5	
102 2-Nitroaniline	65	8.577	8.576	0.001	69	848780	20.0	19.2	
105 Dimethyl phthalate	163	8.711	8.711	0.000	91	1675648	20.0	18.3	
106 1,3-Dinitrobenzene	168	8.750	8.745	0.005	77	294859	20.0	20.7	
107 2,6-Dinitrotoluene	165	8.769	8.769	0.000	77	402682	20.0	19.8	
109 Acenaphthylene	152	8.880	8.875	0.005	98	2495399	20.0	18.4	
110 3-Nitroaniline	138	8.923	8.918	0.005	85	429409	20.0	19.4	
111 2,4-Dinitrophenol	184	9.009	9.004	0.005	95	441587	40.0	40.9	
112 Acenaphthene	153	9.024	9.024	0.000	98	1546784	20.0	17.8	
113 4-Nitrophenol	109	9.038	9.028	0.010	83	762923	40.0	41.4	
114 2,4-Dinitrotoluene	165	9.120	9.115	0.005	79	554784	20.0	20.5	
116 Dibenzofuran	168	9.168	9.168	0.000	95	2173433	20.0	18.2	
119 2,3,4,6-Tetrachlorophenol	232	9.264	9.264	0.000	79	428726	20.0	18.8	
121 Diethyl phthalate	149	9.303	9.303	0.000	95	1667974	20.0	18.5	
247 Hexadecane	57	9.308	9.307	0.001	90	1252765	20.0	17.0	
123 4-Chlorophenyl phenyl ethe	204	9.433	9.432	0.001	91	816441	20.0	18.4	
125 4-Nitroaniline	138	9.447	9.437	0.010	75	426732	20.0	19.9	
126 Fluorene	166	9.462	9.461	0.001	99	1711668	20.0	17.2	
128 4,6-Dinitro-2-methylphenol	198	9.476	9.471	0.005	95	576383	40.0	40.9	
131 N-Nitrosodiphenylamine	169	9.529	9.524	0.005	97	2280789	40.0	35.6	
133 Azobenzene	77	9.572	9.567	0.005	93	3272463	20.0	18.4	
132 1,2-Diphenylhydrazine	77	9.572	9.567	0.005	99	3269697	20.0	18.4	
139 4-Bromophenyl phenyl ether	248	9.851	9.851	0.000	75	428730	20.0	17.8	
142 Atrazine	200	9.952	9.947	0.005	90	907748	40.0	37.8	
141 Hexachlorobenzene	284	9.947	9.947	0.000	88	440914	20.0	18.5	
244 n-Octadecane	57	10.082	10.082	0.000	83	1173913	20.0	16.2	
143 Pentachlorophenol	266	10.096	10.096	0.000	89	689714	40.0	42.4	
148 Phenanthrene	178	10.289	10.284	0.005	99	2587934	20.0	18.1	
149 Anthracene	178	10.332	10.327	0.005	98	2668003	20.0	18.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.442	10.442	0.000	97	2172873	20.0	18.4	
154 Di-n-butyl phthalate	149	10.683	10.683	0.000	100	2873656	20.0	20.4	
159 Fluoranthene	202	11.303	11.303	0.000	100	2784263	20.0	19.3	
160 Benzidine	184	11.375	11.370	0.005	99	3332794	40.0	42.3	
161 Pyrene	202	11.505	11.505	0.000	96	2953172	20.0	20.5	
168 Butyl benzyl phthalate	149	11.962	11.962	0.000	89	1393012	20.0	20.7	
173 Bis(2-ethylhexyl) phthalat	149	12.443	12.443	0.000	94	1940282	20.0	21.3	
175 3,3'-Dichlorobenzidine	252	12.481	12.476	0.005	76	1911470	40.0	42.6	
177 Benzo[a]anthracene	228	12.549	12.544	0.005	98	3012133	20.0	19.5	
178 Chrysene	228	12.587	12.582	0.005	97	2804338	20.0	19.4	
180 Di-n-octyl phthalate	149	13.102	13.102	0.000	99	3394385	20.0	20.6	
182 Benzo[b]fluoranthene	252	13.789	13.780	0.009	96	2769607	20.0	20.2	
183 Benzo[k]fluoranthene	252	13.823	13.813	0.010	98	2760832	20.0	19.9	
184 Benzo[a]pyrene	252	14.261	14.251	0.010	78	2661689	20.0	20.4	
188 Indeno[1,2,3-cd]pyrene	276	16.290	16.271	0.019	99	2697489	20.0	19.9	
189 Dibenz(a,h)anthracene	278	16.295	16.275	0.020	91	2207341	20.0	20.7	
190 Benzo[g,h,i]perylene	276	16.891	16.876	0.015	98	2171925	20.0	19.2	
S 191 Methyl Phenols,Total	100				0			38.7	
S 245 Total Cresols	100				0			38.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L8 W_00006 Amount Added: 1.00 Units: mL

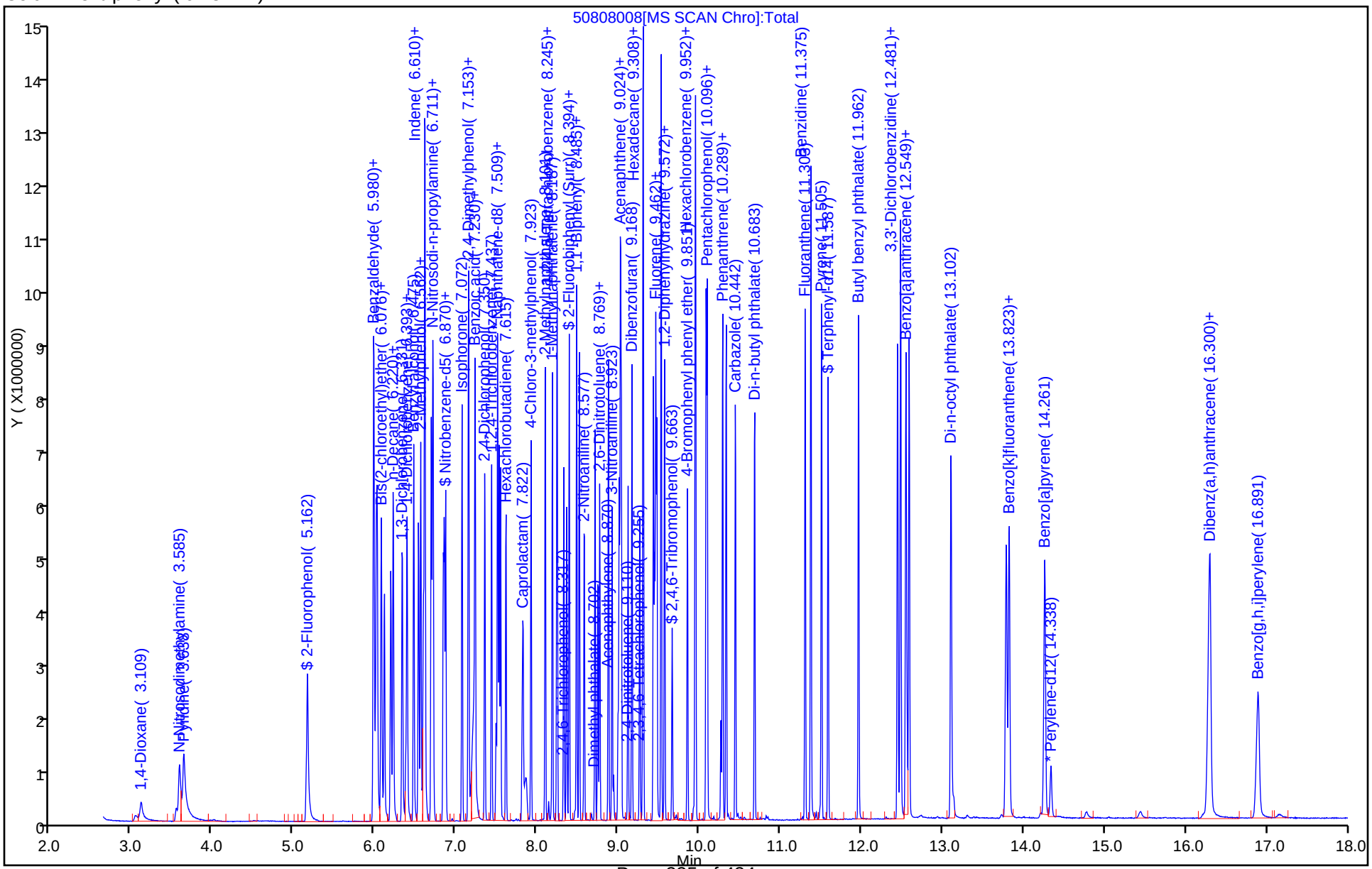
Report Date: 09-Aug-2015 17:33:01 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808008.D

Injection Date:	08-Aug-2015 18:05:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std8 lst1			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

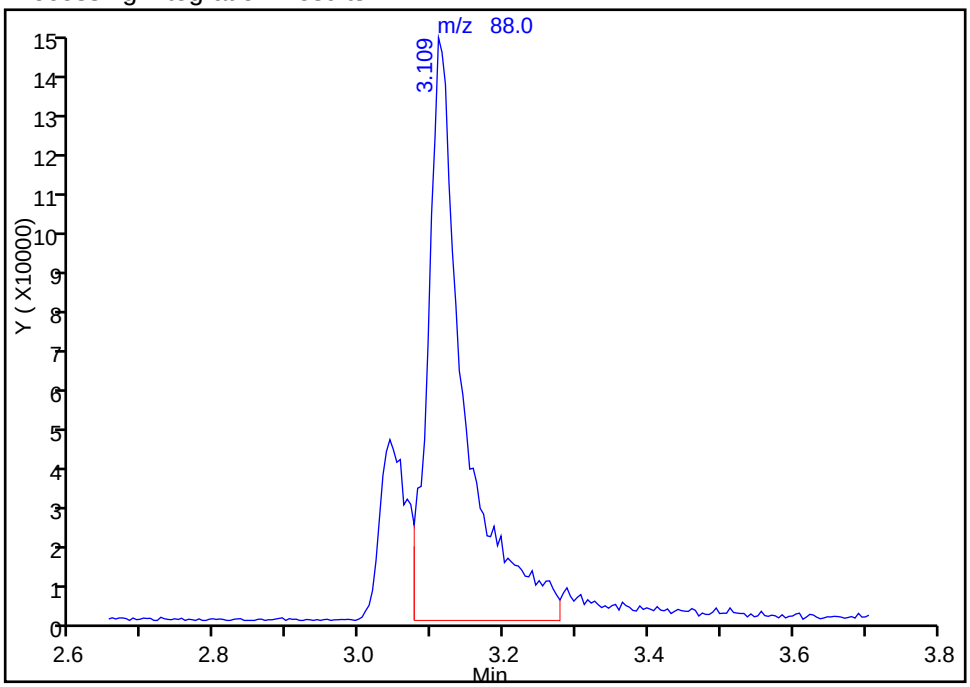
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808008.D
Injection Date: 08-Aug-2015 18:05:30 Instrument ID: A4HP9
Lims ID: std8 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

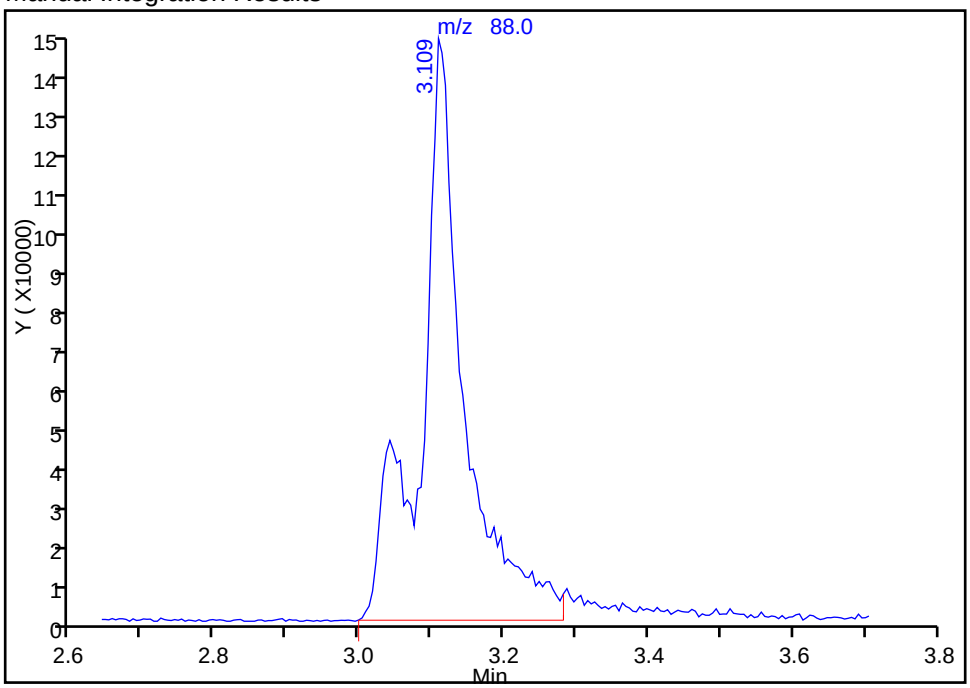
Processing Integration Results

RT: 3.11
Area: 514585
Amount: 18.182289
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 626504
Amount: 20.570188
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:33:41
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

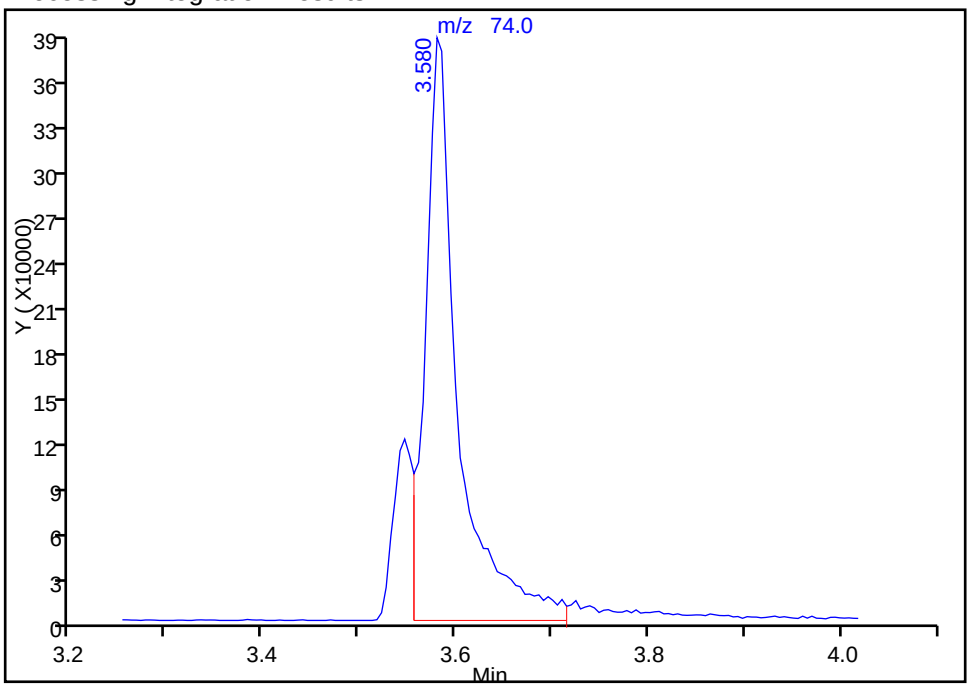
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808008.D
Injection Date: 08-Aug-2015 18:05:30 Instrument ID: A4HP9
Lims ID: std8 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

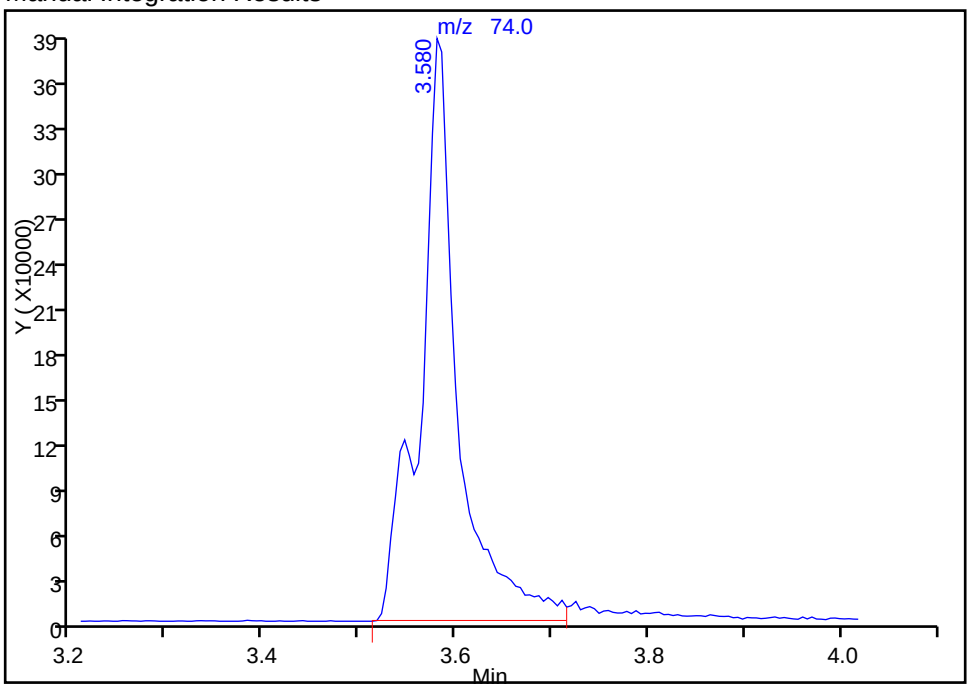
Processing Integration Results

RT: 3.58
Area: 919820
Amount: 18.573915
Amount Units: ng/ul



Manual Integration Results

RT: 3.58
Area: 1060851
Amount: 20.274902
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:33:41
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

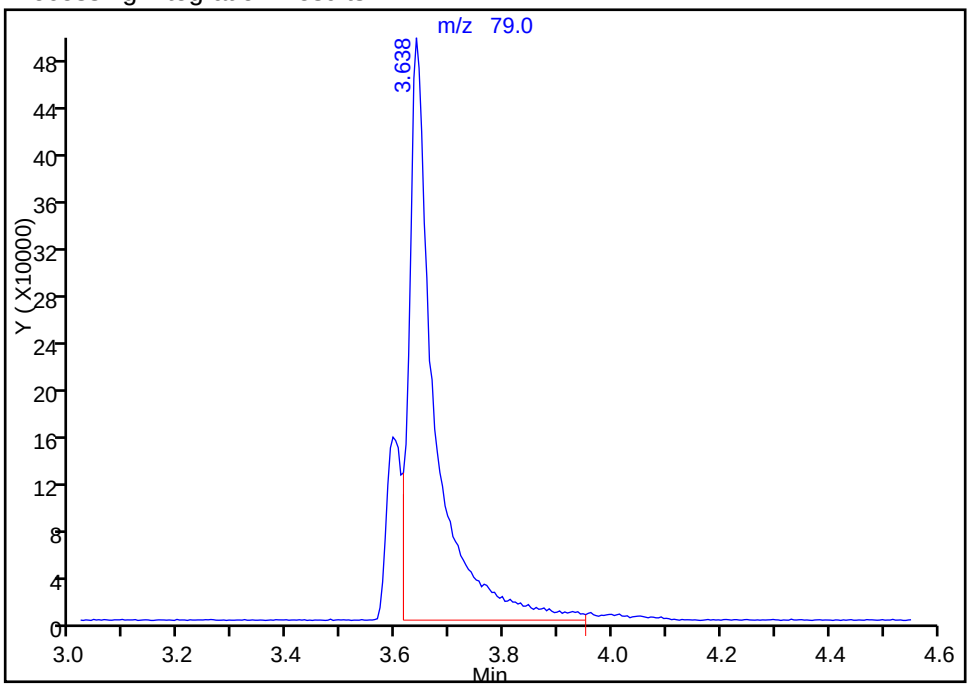
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808008.D
Injection Date: 08-Aug-2015 18:05:30 Instrument ID: A4HP9
Lims ID: std8 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

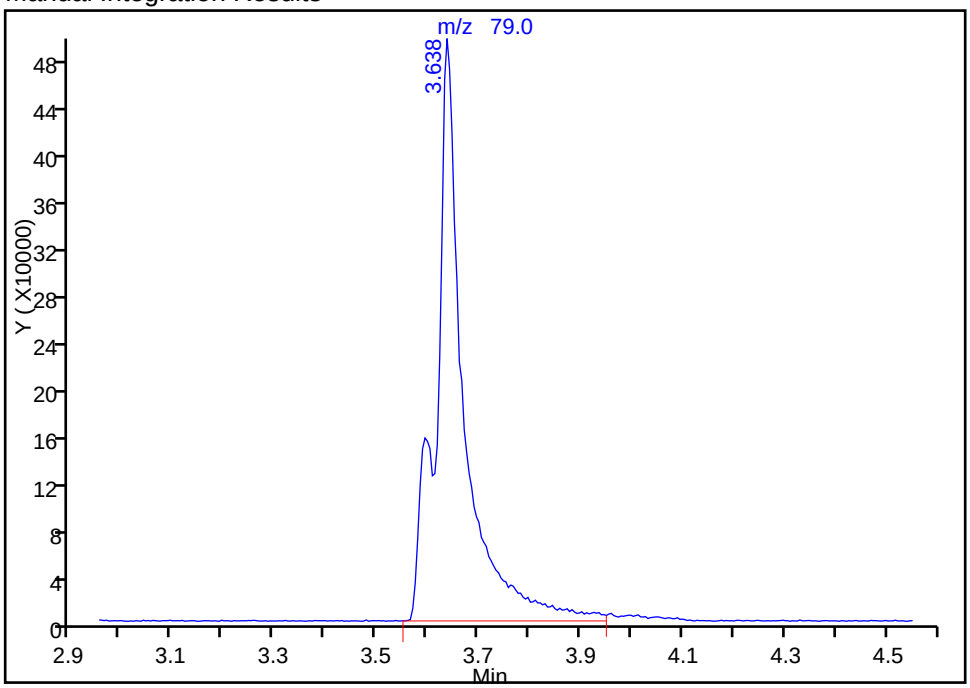
Processing Integration Results

RT: 3.64
Area: 1633933
Amount: 19.124460
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 1911219
Amount: 21.109012
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:33:41
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

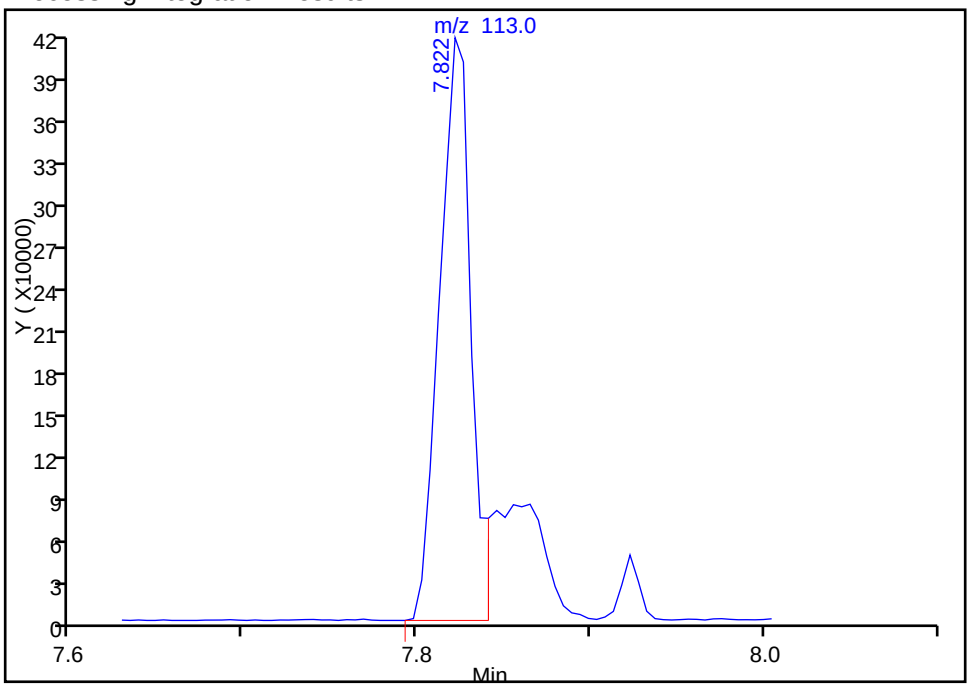
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808008.D				
Injection Date:	08-Aug-2015 18:05:30	Instrument ID:	A4HP9		
Lims ID:	std8 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

84 Caprolactam, CAS: 105-60-2

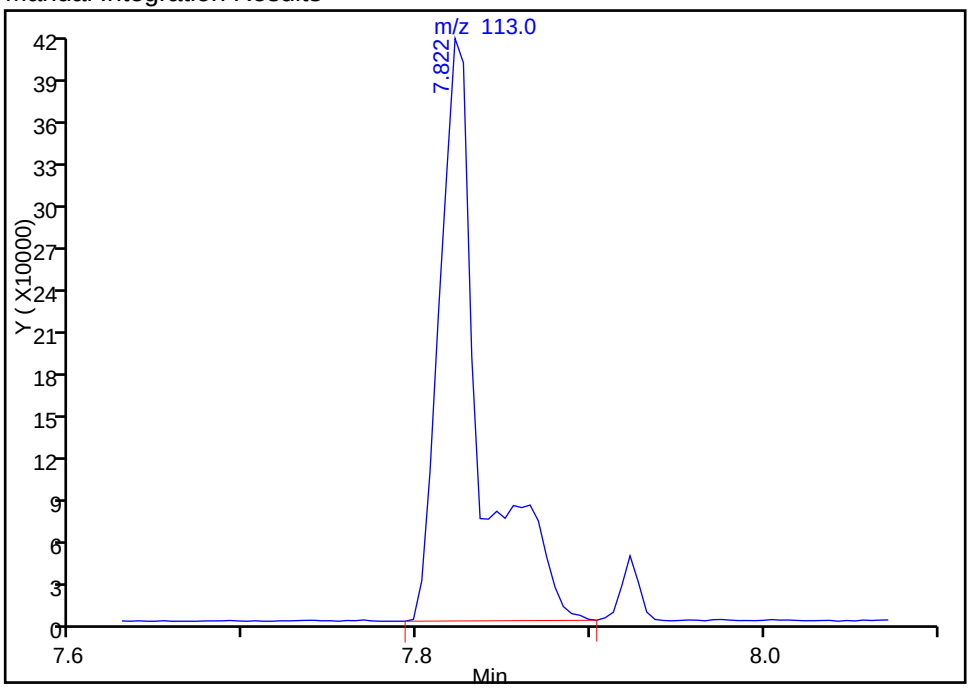
Processing Integration Results

RT: 7.82
Area: 526782
Amount: 33.646429
Amount Units: ng/ul



Manual Integration Results

RT: 7.82
Area: 686532
Amount: 40.425934
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:33:41
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808009.D
Lims ID: std7 lst1
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 08-Aug-2015 18:31:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-009
Misc. Info.: STD7 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:33:06 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:36:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.379	6.379	0.000	94	132185	4.00	4.00	
* 2 Naphthalene-d8	136	7.490	7.490	0.000	98	514172	4.00	4.00	
* 3 Acenaphthene-d10	164	8.995	8.995	0.000	92	299838	4.00	4.00	
* 4 Phenanthrene-d10	188	10.265	10.264	0.001	96	463988	4.00	4.00	
* 5 Chrysene-d12	240	12.558	12.558	0.000	96	545842	4.00	4.00	
* 6 Perylene-d12	264	14.338	14.333	0.005	98	500447	4.00	4.00	
$ 7 2-Fluorophenol	112	5.162	5.162	0.000	95	864684	15.0	14.9	
$ 8 Phenol-d5	99	6.014	6.009	0.005	95	1186192	15.0	14.5	
$ 9 Nitrobenzene-d5	82	6.850	6.850	0.000	84	1446708	15.0	14.5	
$ 10 2-Fluorobiphenyl (Surr)	172	8.394	8.394	0.000	98	1365327	15.0	13.9	
$ 11 2,4,6-Tribromophenol	330	9.663	9.663	0.000	79	143962	15.0	14.8	
$ 12 Terphenyl-d14	244	11.587	11.587	0.000	99	1478623	15.0	14.7	
25 1,4-Dioxane	88	3.114	3.114	0.000	86	480066	15.0	14.7	M
26 N-Nitrosodimethylamine	74	3.580	3.580	0.000	87	858844	15.0	15.3	M
27 Pyridine	79	3.638	3.643	-0.005	89	1520777	15.0	15.7	M
41 Benzaldehyde	77	5.980	5.980	0.000	87	2193924	30.0	28.5	
43 Phenol	94	6.023	6.023	0.000	95	1319142	15.0	14.4	
44 Aniline	93	6.076	6.071	0.005	96	1724712	15.0	14.6	
69 Bis(2-chloroethyl)ether	93	6.115	6.110	0.005	97	1238678	15.0	15.0	
46 2-Chlorophenol	128	6.192	6.191	0.001	87	736363	15.0	14.6	
243 n-Decane	57	6.220	6.220	0.000	97	935207	15.0	14.2	
47 1,3-Dichlorobenzene	146	6.331	6.331	0.000	87	777467	15.0	14.4	
48 1,4-Dichlorobenzene	146	6.393	6.393	0.000	84	802952	15.0	14.6	
49 Benzyl alcohol	108	6.475	6.470	0.005	83	596882	15.0	14.7	
50 1,2-Dichlorobenzene	146	6.533	6.533	0.000	86	750941	15.0	14.4	
51 2-Methylphenol	108	6.562	6.562	0.000	90	821807	15.0	14.6	
53 2,2'-oxybis[1-chloropropan	45	6.595	6.595	0.000	98	902898	15.0	14.5	
52 Indene	115	6.610	6.610	0.000	88	2947267	30.0	28.0	
21 3 & 4 Methylphenol	108	6.692	6.687	0.005	93	853109	15.0	14.4	
57 N-Nitrosodi-n-propylamine	70	6.706	6.701	0.005	99	943832	15.0	14.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.716	6.711	0.005	86	1340610	15.0	14.4	
61 Hexachloroethane	117	6.841	6.840	0.001	90	385831	15.0	14.3	
62 Nitrobenzene	77	6.870	6.865	0.005	78	1464660	15.0	14.7	
64 Isophorone	82	7.072	7.066	0.006	97	2306320	15.0	14.6	
66 2-Nitrophenol	139	7.148	7.148	0.000	80	346748	15.0	15.0	
65 2,4-Dimethylphenol	107	7.153	7.153	0.000	95	911837	15.0	14.5	
71 Benzoic acid	122	7.225	7.192	0.033	82	898025	30.0	30.7	
70 Bis(2-chloroethoxy)methane	93	7.230	7.230	0.000	98	1262519	15.0	14.5	
73 2,4-Dichlorophenol	162	7.350	7.350	0.000	91	588409	15.0	15.0	
74 1,2,4-Trichlorobenzene	180	7.437	7.437	0.000	88	619932	15.0	14.8	
75 Naphthalene	128	7.509	7.509	0.000	98	2074304	15.0	14.1	
76 4-Chloroaniline	127	7.528	7.528	0.000	88	897699	15.0	14.2	
77 2,6-Dichlorophenol	162	7.548	7.547	0.001	86	549819	15.0	14.4	
79 Hexachlorobutadiene	225	7.615	7.615	0.000	94	381768	15.0	14.7	
84 Caprolactam	113	7.817	7.797	0.020	84	547038	30.0	30.7	M
86 4-Chloro-3-methylphenol	107	7.923	7.918	0.005	86	787190	15.0	14.6	
87 2-Methylnaphthalene	142	8.096	8.096	0.000	89	1298906	15.0	14.4	
88 1-Methylnaphthalene	142	8.187	8.187	0.000	89	1126003	15.0	14.2	
89 Hexachlorocyclopentadiene	237	8.240	8.240	0.000	94	367546	15.0	14.8	
91 1,2,4,5-Tetrachlorobenzene	216	8.245	8.245	0.000	96	599829	15.0	14.1	
92 2,4,6-Trichlorophenol	196	8.327	8.326	0.001	91	421463	15.0	15.0	
93 2,4,5-Trichlorophenol	196	8.360	8.360	0.000	87	430387	15.0	14.6	
98 1,1'-Biphenyl	154	8.485	8.485	0.000	97	1559237	15.0	14.0	
100 2-Chloronaphthalene	162	8.519	8.519	0.000	98	1240138	15.0	14.1	
102 2-Nitroaniline	65	8.577	8.576	0.001	70	699945	15.0	15.3	
105 Dimethyl phthalate	163	8.711	8.711	0.000	92	1357116	15.0	14.3	
106 1,3-Dinitrobenzene	168	8.745	8.745	0.000	76	225531	15.0	15.3	
107 2,6-Dinitrotoluene	165	8.769	8.769	0.000	76	324625	15.0	15.4	
109 Acenaphthylene	152	8.880	8.875	0.005	98	1977218	15.0	14.1	
110 3-Nitroaniline	138	8.923	8.918	0.005	85	334378	15.0	14.6	
111 2,4-Dinitrophenol	184	9.009	9.004	0.005	95	326751	30.0	29.5	
112 Acenaphthene	153	9.024	9.024	0.000	98	1240644	15.0	13.8	
113 4-Nitrophenol	109	9.034	9.028	0.006	84	609637	30.0	31.9	
114 2,4-Dinitrotoluene	165	9.120	9.115	0.005	79	424364	15.0	15.1	
116 Dibenzofuran	168	9.168	9.168	0.000	95	1747724	15.0	14.1	
119 2,3,4,6-Tetrachlorophenol	232	9.264	9.264	0.000	79	340807	15.0	14.4	
121 Diethyl phthalate	149	9.303	9.303	0.000	95	1295386	15.0	13.9	
247 Hexadecane	57	9.308	9.307	0.001	94	1067022	15.0	14.0	
123 4-Chlorophenyl phenyl ethe	204	9.433	9.432	0.001	90	665512	15.0	14.5	
125 4-Nitroaniline	138	9.447	9.437	0.010	76	356918	15.0	16.0	
126 Fluorene	166	9.461	9.461	0.000	100	1422802	15.0	13.8	
128 4,6-Dinitro-2-methylphenol	198	9.476	9.471	0.005	95	443487	30.0	30.8	
131 N-Nitrosodiphenylamine	169	9.529	9.524	0.005	98	1789467	30.0	27.1	
133 Azobenzene	77	9.572	9.567	0.005	93	2714607	15.0	14.8	
132 1,2-Diphenylhydrazine	77	9.572	9.567	0.005	99	2712639	15.0	14.8	
139 4-Bromophenyl phenyl ether	248	9.856	9.851	0.005	75	348656	15.0	14.1	
142 Atrazine	200	9.952	9.947	0.005	88	706687	30.0	28.6	
141 Hexachlorobenzene	284	9.947	9.947	0.000	88	354699	15.0	14.5	
244 n-Octadecane	57	10.082	10.082	0.000	84	977433	15.0	13.1	
143 Pentachlorophenol	266	10.096	10.096	0.000	88	543286	30.0	32.4	
148 Phenanthrene	178	10.289	10.284	0.005	99	2009766	15.0	13.7	
149 Anthracene	178	10.332	10.327	0.005	98	2051174	15.0	14.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.442	10.442	0.000	97	1810711	15.0	14.9	
154 Di-n-butyl phthalate	149	10.683	10.683	0.000	99	2244190	15.0	15.5	
159 Fluoranthene	202	11.303	11.303	0.000	99	2223508	15.0	15.0	
160 Benzidine	184	11.375	11.370	0.005	99	2544524	30.0	29.8	
161 Pyrene	202	11.505	11.505	0.000	96	2322510	15.0	14.8	
168 Butyl benzyl phthalate	149	11.962	11.962	0.000	89	1121736	15.0	15.3	
173 Bis(2-ethylhexyl) phthalat	149	12.443	12.443	0.000	94	1552760	15.0	15.6	
175 3,3'-Dichlorobenzidine	252	12.481	12.476	0.005	76	1508689	30.0	30.8	
177 Benzo[a]anthracene	228	12.549	12.544	0.005	98	2448834	15.0	14.5	
178 Chrysene	228	12.587	12.582	0.005	97	2264544	15.0	14.3	
180 Di-n-octyl phthalate	149	13.102	13.102	0.000	99	2759211	15.0	15.5	
182 Benzo[b]fluoranthene	252	13.785	13.780	0.005	96	2107890	15.0	14.2	
183 Benzo[k]fluoranthene	252	13.818	13.813	0.005	98	2333981	15.0	15.6	
184 Benzo[a]pyrene	252	14.261	14.251	0.010	78	2124661	15.0	15.1	
188 Indeno[1,2,3-cd]pyrene	276	16.295	16.271	0.024	92	2190149	15.0	14.9	
189 Dibenz(a,h)anthracene	278	16.295	16.275	0.020	86	1760496	15.0	15.3	
190 Benzo[g,h,i]perylene	276	16.886	16.876	0.010	98	1750849	15.0	14.4	
S 191 Methyl Phenols,Total	100				0			28.9	
S 245 Total Cresols	100				0			28.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L7 W_00006 Amount Added: 1.00 Units: mL

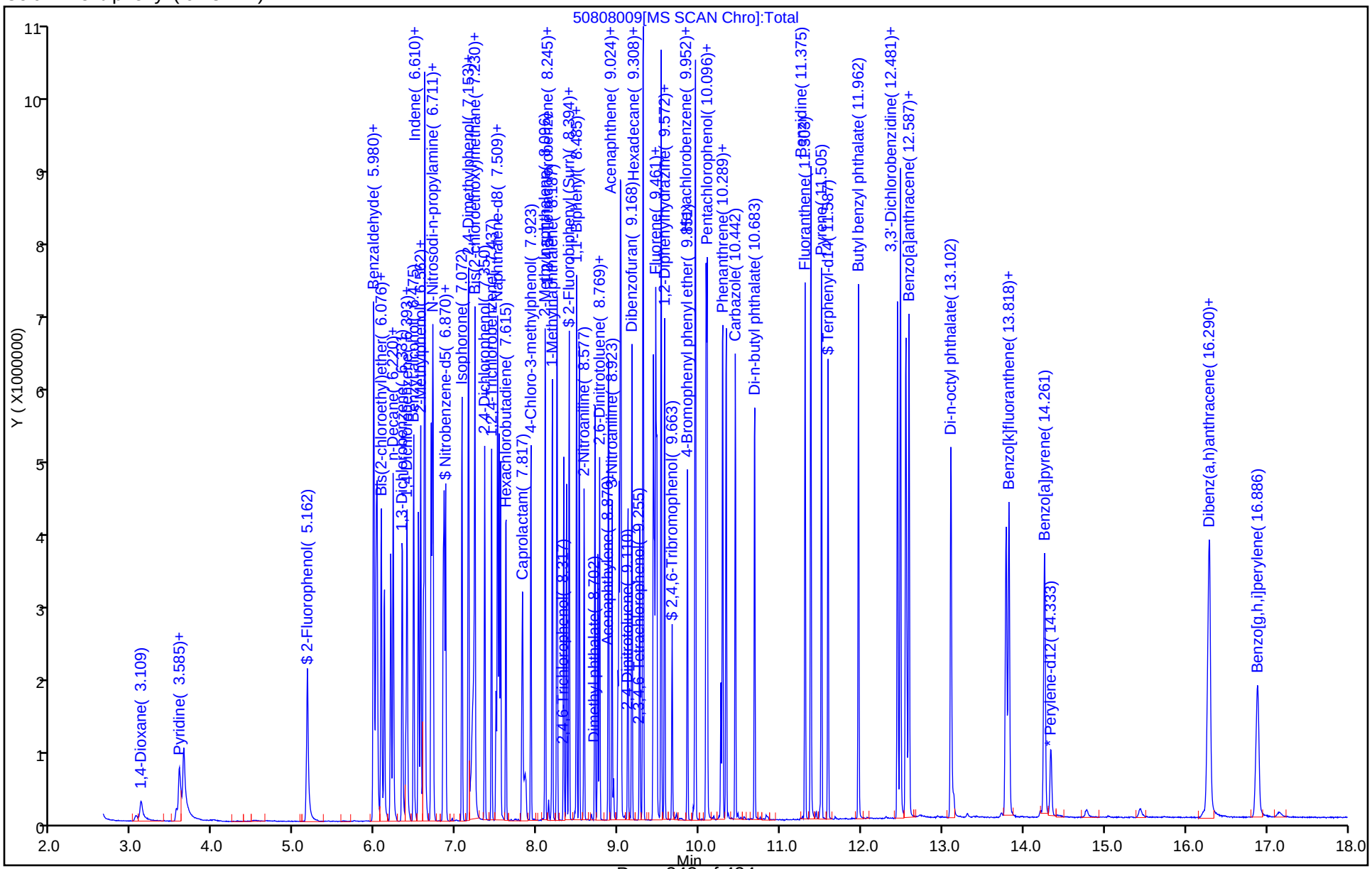
Report Date: 09-Aug-2015 17:33:06 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808009.D

Injection Date:	08-Aug-2015 18:31:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std7 lst1			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

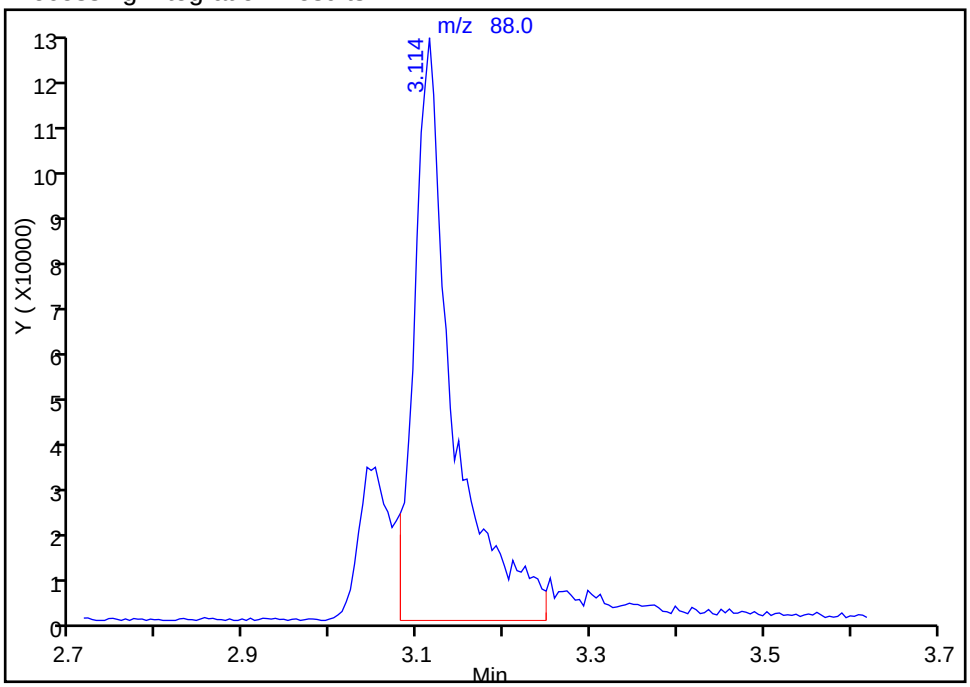
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808009.D
Injection Date: 08-Aug-2015 18:31:30 Instrument ID: A4HP9
Lims ID: std7 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

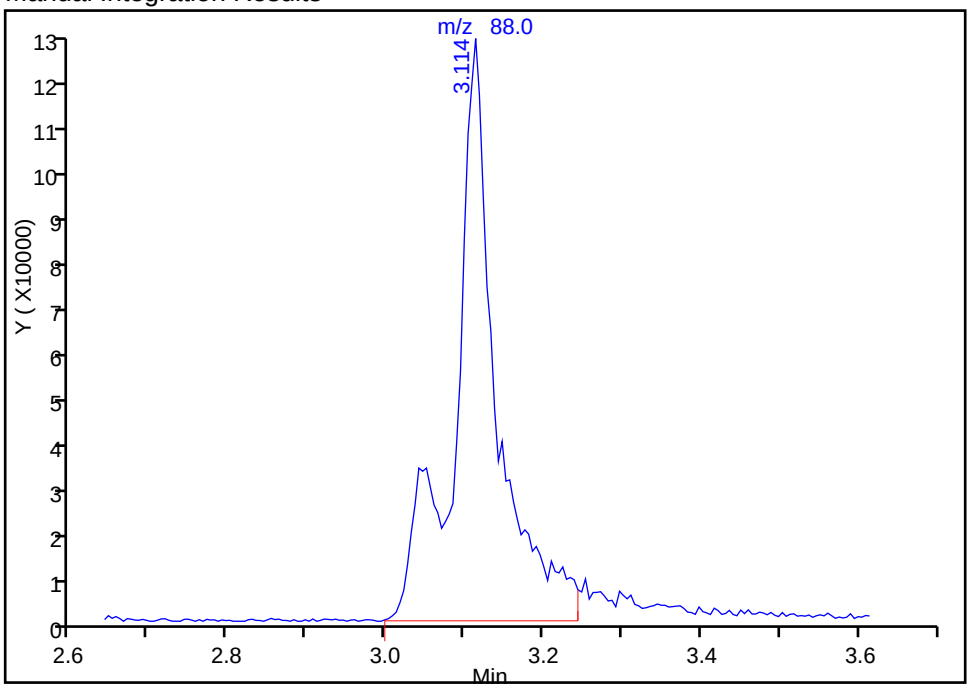
Processing Integration Results

RT: 3.11
Area: 398064
Amount: 12.834551
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 480066
Amount: 14.738564
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:36:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

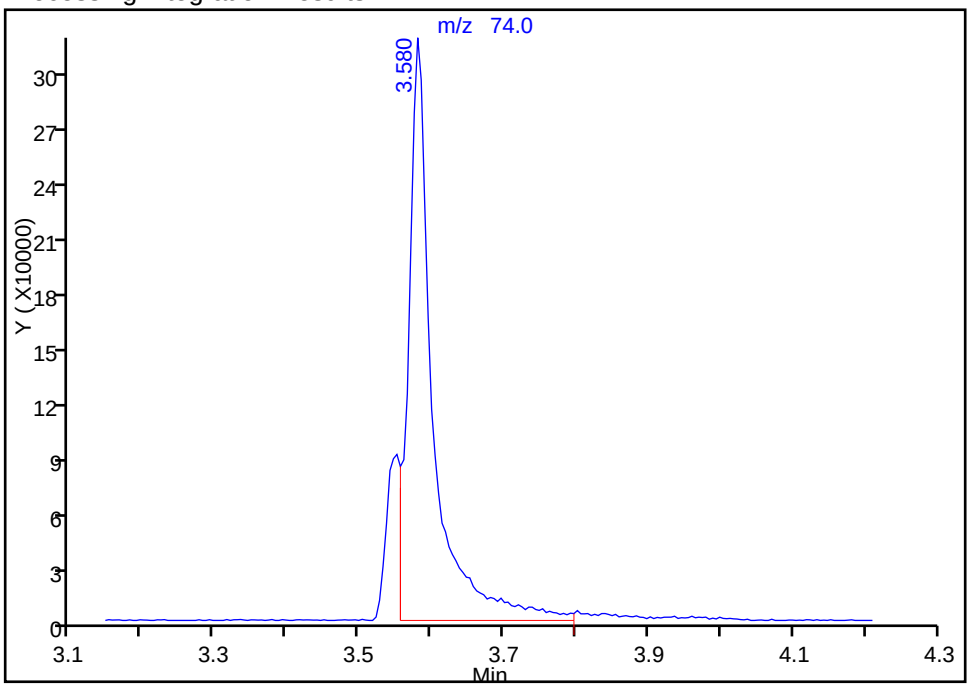
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808009.D
Injection Date: 08-Aug-2015 18:31:30 Instrument ID: A4HP9
Lims ID: std7 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

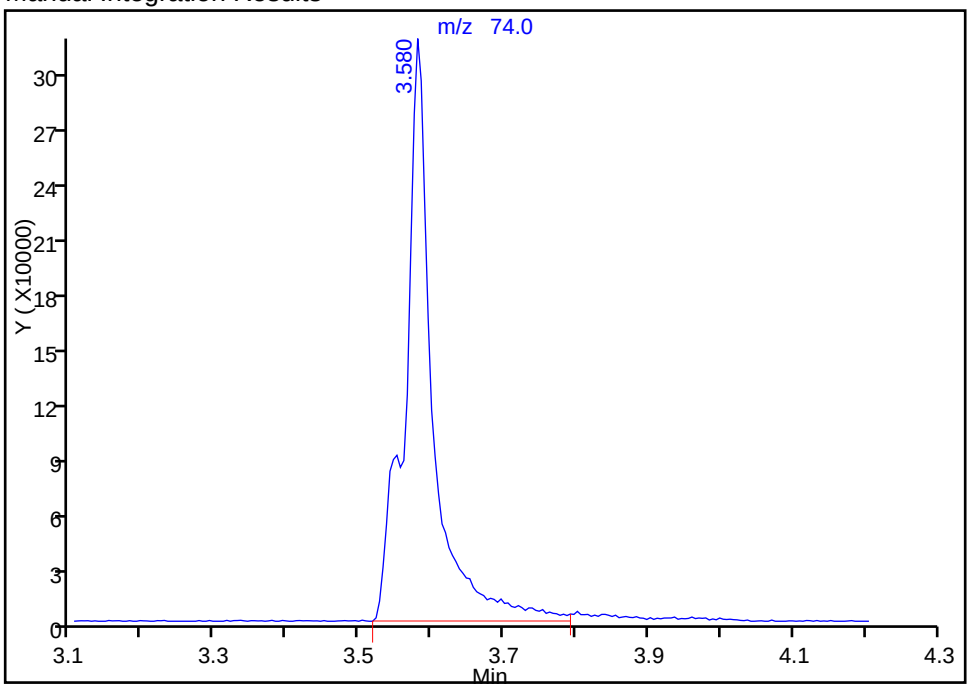
Processing Integration Results

RT: 3.58
Area: 758868
Amount: 14.078119
Amount Units: ng/ul



Manual Integration Results

RT: 3.58
Area: 858844
Amount: 15.348236
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:36:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

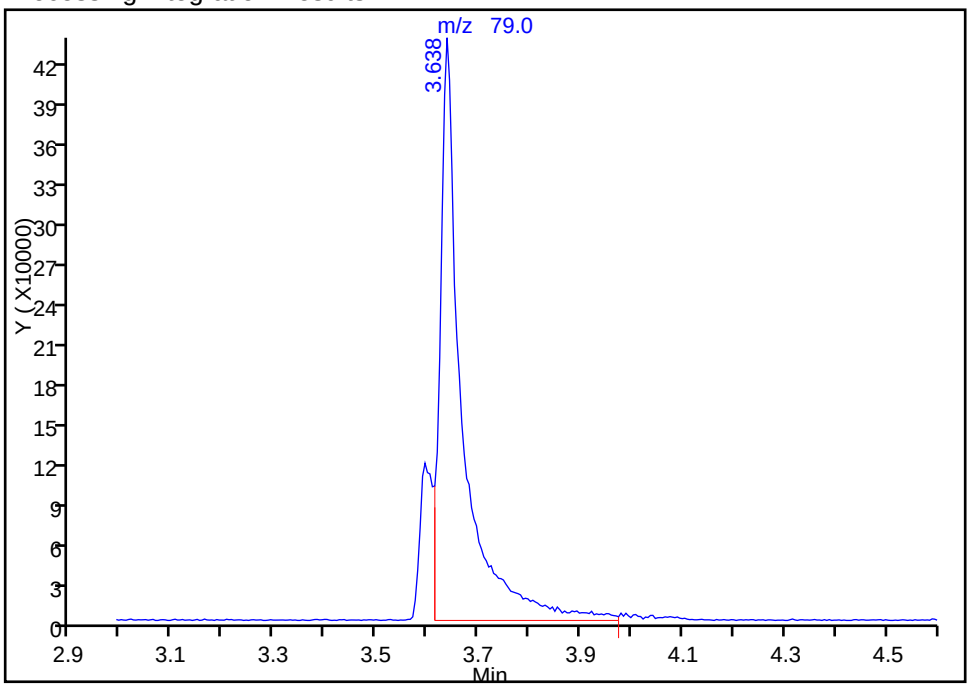
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808009.D
Injection Date: 08-Aug-2015 18:31:30 Instrument ID: A4HP9
Lims ID: std7 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

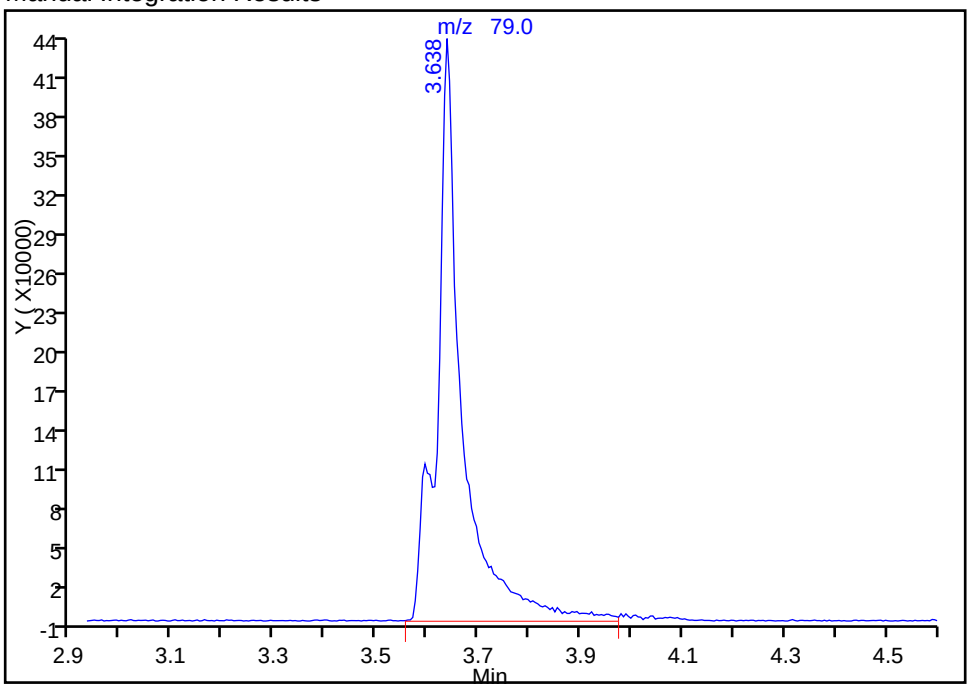
Processing Integration Results

RT: 3.64
Area: 1322021
Amount: 14.181162
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 1520777
Amount: 15.705899
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:36:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

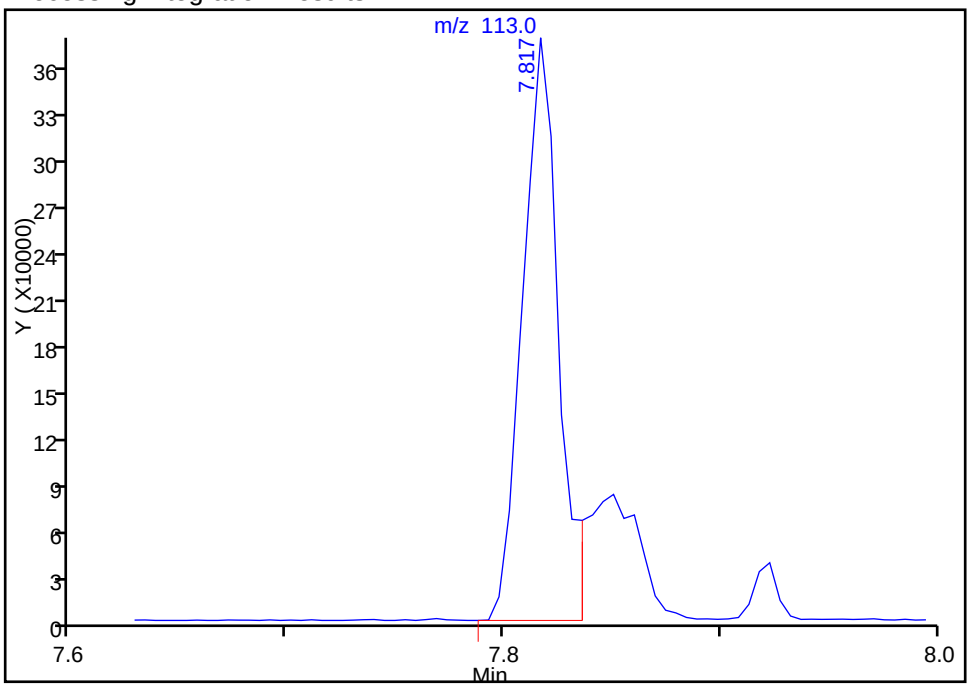
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808009.D				
Injection Date:	08-Aug-2015 18:31:30	Instrument ID:	A4HP9		
Lims ID:	std7 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

84 Caprolactam, CAS: 105-60-2

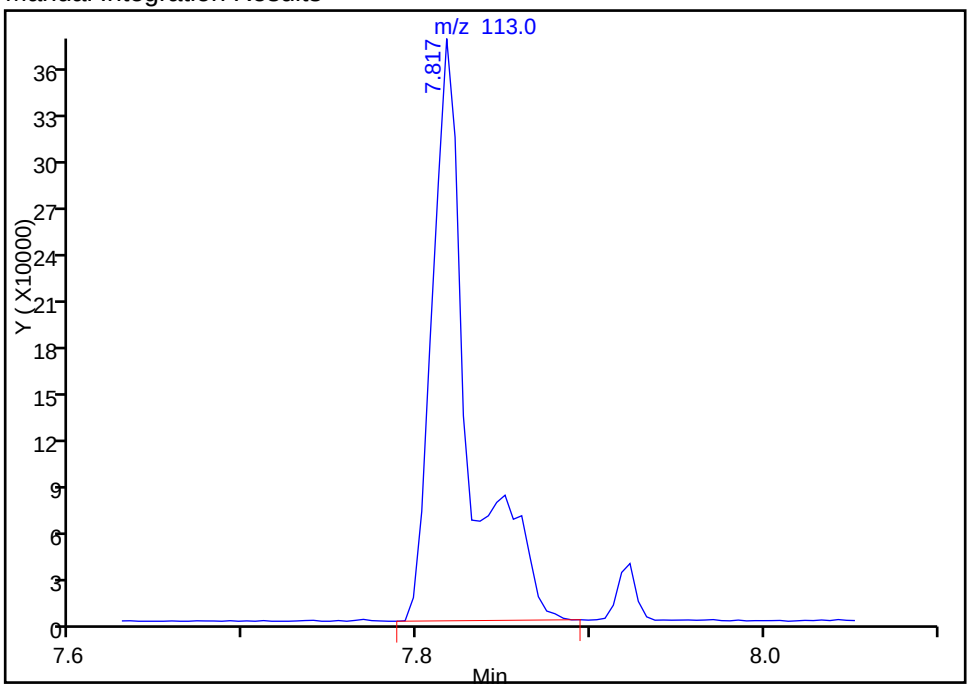
Processing Integration Results

RT: 7.82
Area: 427205
Amount: 25.236554
Amount Units: ng/ul



Manual Integration Results

RT: 7.82
Area: 547038
Amount: 30.742143
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:36:21
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D
Lims ID: std6 lst1
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 08-Aug-2015 18:56:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-010
Misc. Info.: STD6 LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:33:10 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:41:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.380	6.380	0.000	94	132768	4.00	4.00	
* 2 Naphthalene-d8	136	7.491	7.491	0.000	98	517319	4.00	4.00	
* 3 Acenaphthene-d10	164	8.996	8.996	0.000	93	295987	4.00	4.00	
* 4 Phenanthrene-d10	188	10.265	10.265	0.000	97	430270	4.00	4.00	
* 5 Chrysene-d12	240	12.559	12.559	0.000	97	536054	4.00	4.00	
* 6 Perylene-d12	264	14.334	14.334	0.000	98	474969	4.00	4.00	
$ 7 2-Fluorophenol	112	5.163	5.163	0.000	95	576535	10.0	9.92	
$ 8 Phenol-d5	99	6.010	6.010	0.000	96	818935	10.0	9.97	
$ 9 Nitrobenzene-d5	82	6.851	6.851	0.000	84	983191	10.0	9.81	
$ 10 2-Fluorobiphenyl (Surr)	172	8.395	8.395	0.000	98	911203	10.0	9.43	
$ 11 2,4,6-Tribromophenol	330	9.664	9.664	0.000	78	91642	10.0	9.52	
$ 12 Terphenyl-d14	244	11.588	11.588	0.000	99	997147	10.0	10.1	
25 1,4-Dioxane	88	3.115	3.115	0.000	86	348735	10.0	10.7	M
26 N-Nitrosodimethylamine	74	3.586	3.586	0.000	86	577074	10.0	10.3	M
27 Pyridine	79	3.639	3.639	0.000	96	976486	10.0	10.0	M
41 Benzaldehyde	77	5.981	5.981	0.000	87	1521346	20.0	19.7	
43 Phenol	94	6.024	6.024	0.000	95	905305	10.0	9.83	
44 Aniline	93	6.072	6.072	0.000	95	1187061	10.0	9.98	
69 Bis(2-chloroethyl)ether	93	6.111	6.111	0.000	97	822301	10.0	9.89	
46 2-Chlorophenol	128	6.192	6.192	0.000	89	508374	10.0	10.1	
243 n-Decane	57	6.221	6.221	0.000	97	652751	10.0	9.84	
47 1,3-Dichlorobenzene	146	6.332	6.332	0.000	86	538509	10.0	9.95	
48 1,4-Dichlorobenzene	146	6.394	6.394	0.000	84	543537	10.0	9.83	
49 Benzyl alcohol	108	6.476	6.476	0.000	83	406965	10.0	9.95	
50 1,2-Dichlorobenzene	146	6.534	6.534	0.000	86	513185	10.0	9.79	
51 2-Methylphenol	108	6.563	6.563	0.000	90	556910	10.0	9.83	
53 2,2'-oxybis[1-chloropropan	45	6.592	6.592	0.000	98	605450	10.0	9.67	
52 Indene	115	6.611	6.611	0.000	88	2033188	20.0	19.2	
21 3 & 4 Methylphenol	108	6.688	6.688	0.000	94	581570	10.0	9.74	
57 N-Nitrosodi-n-propylamine	70	6.702	6.702	0.000	99	642468	10.0	9.78	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.712	6.712	0.000	87	911256	10.0	9.75	
61 Hexachloroethane	117	6.837	6.837	0.000	88	264717	10.0	9.77	
62 Nitrobenzene	77	6.866	6.866	0.000	78	1009143	10.0	10.1	
64 Isophorone	82	7.068	7.068	0.000	97	1573975	10.0	9.93	
66 2-Nitrophenol	139	7.149	7.149	0.000	82	229330	10.0	9.88	
65 2,4-Dimethylphenol	107	7.154	7.154	0.000	94	625159	10.0	9.88	
71 Benzoic acid	122	7.212	7.212	0.000	80	582032	20.0	20.0	M
70 Bis(2-chloroethoxy)methane	93	7.231	7.231	0.000	96	892137	10.0	10.2	
73 2,4-Dichlorophenol	162	7.351	7.351	0.000	90	390996	10.0	9.87	
74 1,2,4-Trichlorobenzene	180	7.438	7.438	0.000	87	418611	10.0	9.95	
75 Naphthalene	128	7.510	7.510	0.000	97	1437139	10.0	9.72	
76 4-Chloroaniline	127	7.529	7.529	0.000	88	643800	10.0	10.1	
77 2,6-Dichlorophenol	162	7.548	7.548	0.000	87	385861	10.0	10.1	
79 Hexachlorobutadiene	225	7.611	7.611	0.000	95	253431	10.0	9.71	
84 Caprolactam	113	7.813	7.813	0.000	86	364519	20.0	20.4	M
86 4-Chloro-3-methylphenol	107	7.919	7.919	0.000	85	536692	10.0	9.92	
87 2-Methylnaphthalene	142	8.097	8.097	0.000	88	882085	10.0	9.74	
88 1-Methylnaphthalene	142	8.188	8.188	0.000	90	773268	10.0	9.69	
89 Hexachlorocyclopentadiene	237	8.241	8.241	0.000	93	239630	10.0	9.76	
91 1,2,4,5-Tetrachlorobenzene	216	8.246	8.246	0.000	94	415553	10.0	9.87	
92 2,4,6-Trichlorophenol	196	8.328	8.328	0.000	91	284421	10.0	10.3	
93 2,4,5-Trichlorophenol	196	8.361	8.361	0.000	89	298400	10.0	10.2	
98 1,1'-Biphenyl	154	8.486	8.486	0.000	97	1060081	10.0	9.66	
100 2-Chloronaphthalene	162	8.520	8.520	0.000	97	828709	10.0	9.57	
102 2-Nitroaniline	65	8.578	8.578	0.000	70	471683	10.0	10.4	
105 Dimethyl phthalate	163	8.712	8.712	0.000	92	920174	10.0	9.81	
106 1,3-Dinitrobenzene	168	8.746	8.746	0.000	77	155700	10.0	10.7	
107 2,6-Dinitrotoluene	165	8.770	8.770	0.000	75	218340	10.0	10.5	
109 Acenaphthylene	152	8.876	8.876	0.000	98	1331535	10.0	9.63	
110 3-Nitroaniline	138	8.919	8.919	0.000	85	222522	10.0	9.84	
111 2,4-Dinitrophenol	184	9.010	9.010	0.000	94	188749	20.0	17.6	
112 Acenaphthene	153	9.025	9.025	0.000	98	835839	10.0	9.41	
113 4-Nitrophenol	109	9.030	9.030	0.000	84	399082	20.0	21.2	
114 2,4-Dinitrotoluene	165	9.116	9.116	0.000	80	279426	10.0	10.1	
116 Dibenzofuran	168	9.169	9.169	0.000	95	1171581	10.0	9.60	
119 2,3,4,6-Tetrachlorophenol	232	9.265	9.265	0.000	79	230954	10.0	9.92	
121 Diethyl phthalate	149	9.304	9.304	0.000	94	836034	10.0	9.08	
247 Hexadecane	57	9.309	9.309	0.000	96	724284	10.0	9.63	
123 4-Chlorophenyl phenyl ethe	204	9.434	9.434	0.000	90	445560	10.0	9.81	
125 4-Nitroaniline	138	9.443	9.443	0.000	75	220506	10.0	10.0	
126 Fluorene	166	9.462	9.462	0.000	99	962937	10.0	9.44	
128 4,6-Dinitro-2-methylphenol	198	9.472	9.472	0.000	95	277821	20.0	21.0	
131 N-Nitrosodiphenylamine	169	9.525	9.525	0.000	98	1240178	20.0	20.3	
133 Azobenzene	77	9.568	9.568	0.000	93	1886926	10.0	11.1	
132 1,2-Diphenylhydrazine	77	9.568	9.568	0.000	100	1886924	10.0	11.1	
139 4-Bromophenyl phenyl ether	248	9.852	9.852	0.000	74	250357	10.0	10.9	
142 Atrazine	200	9.948	9.948	0.000	88	477053	20.0	20.8	
141 Hexachlorobenzene	284	9.948	9.948	0.000	88	238135	10.0	10.5	
244 n-Octadecane	57	10.083	10.083	0.000	84	694572	10.0	10.1	
143 Pentachlorophenol	266	10.097	10.097	0.000	88	343376	20.0	22.1	
148 Phenanthrene	178	10.285	10.285	0.000	99	1293560	10.0	9.48	
149 Anthracene	178	10.328	10.328	0.000	99	1320738	10.0	9.73	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.443	10.443	0.000	97	1255417	10.0	11.1	
154 Di-n-butyl phthalate	149	10.679	10.679	0.000	99	1494397	10.0	11.1	
159 Fluoranthene	202	11.304	11.304	0.000	99	1516770	10.0	11.0	
160 Benzidine	184	11.371	11.371	0.000	99	1689679	20.0	20.5	
161 Pyrene	202	11.506	11.506	0.000	96	1534256	10.0	9.93	
168 Butyl benzyl phthalate	149	11.963	11.963	0.000	88	727479	10.0	10.1	
173 Bis(2-ethylhexyl) phthalat	149	12.444	12.444	0.000	94	1007968	10.0	10.3	
175 3,3'-Dichlorobenzidine	252	12.477	12.477	0.000	78	960742	20.0	19.9	
177 Benzo[a]anthracene	228	12.545	12.545	0.000	98	1602133	10.0	9.69	
178 Chrysene	228	12.583	12.583	0.000	97	1511250	10.0	9.74	
180 Di-n-octyl phthalate	149	13.103	13.103	0.000	99	1738665	10.0	10.3	
182 Benzo[b]fluoranthene	252	13.781	13.781	0.000	96	1452053	10.0	10.3	
183 Benzo[k]fluoranthene	252	13.814	13.814	0.000	99	1447013	10.0	10.2	
184 Benzo[a]pyrene	252	14.257	14.257	0.000	78	1392471	10.0	10.4	
188 Indeno[1,2,3-cd]pyrene	276	16.276	16.276	0.000	98	1391143	10.0	10.0	
189 Dibenz(a,h)anthracene	278	16.281	16.281	0.000	88	1135235	10.0	10.4	
190 Benzo[g,h,i]perylene	276	16.882	16.882	0.000	97	1139184	10.0	9.85	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L6 W_00006 Amount Added: 1.00 Units: mL

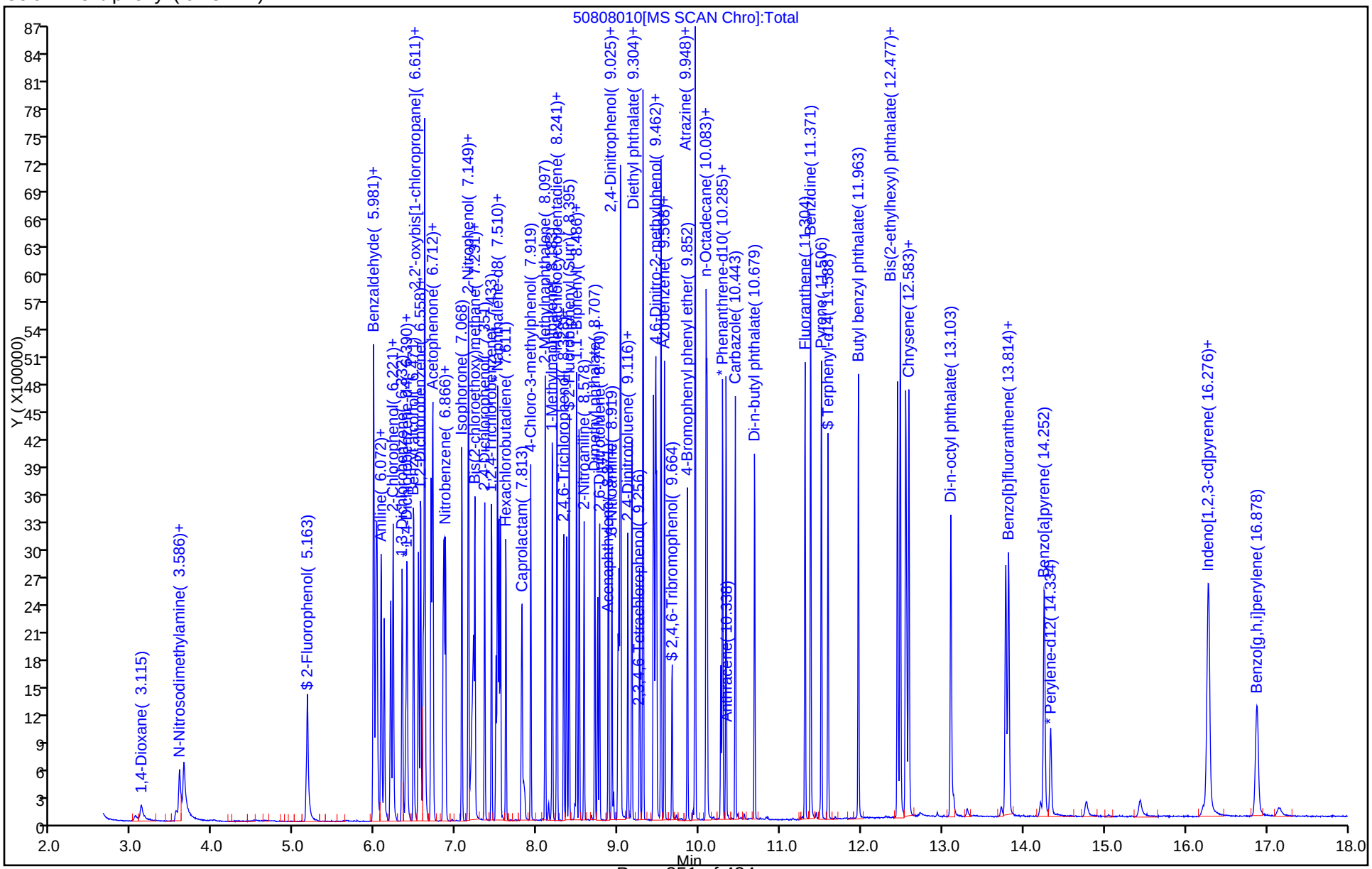
Report Date: 09-Aug-2015 17:33:11 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D

Injection Date:	08-Aug-2015 18:56:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	std6 lst1			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

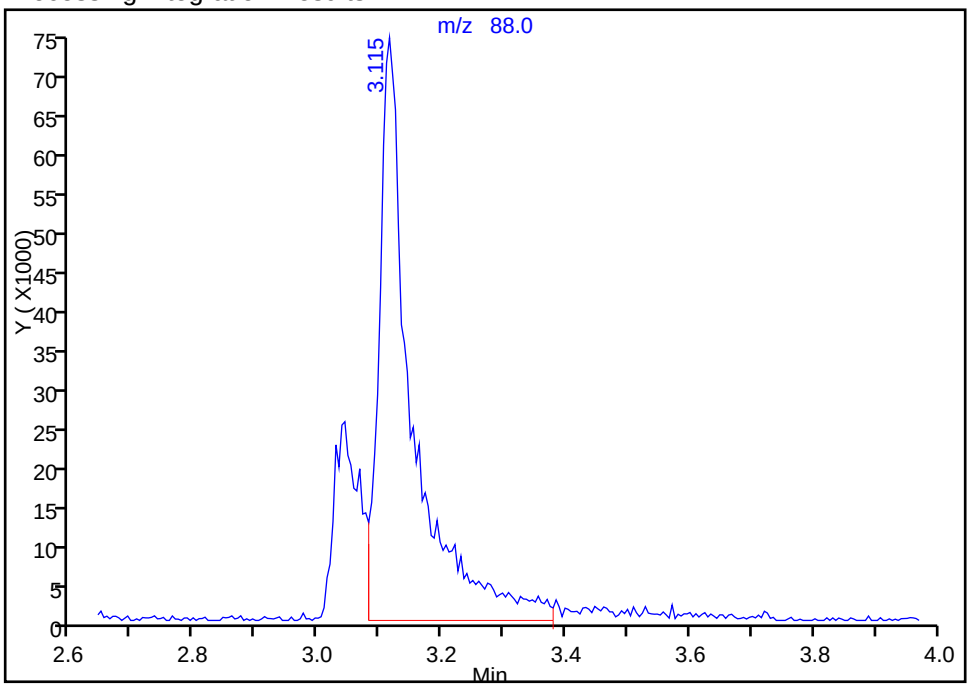
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D
Injection Date: 08-Aug-2015 18:56:30 Instrument ID: A4HP9
Lims ID: std6 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

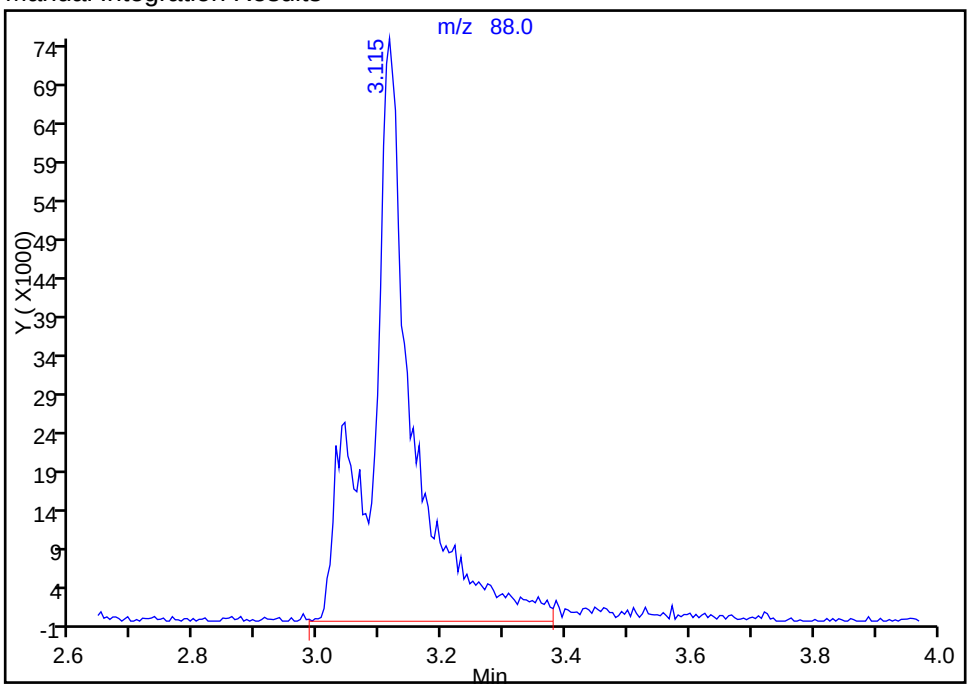
Processing Integration Results

RT: 3.11
Area: 278529
Amount: 8.748269
Amount Units: ng/ul



Manual Integration Results

RT: 3.11
Area: 348735
Amount: 10.659541
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:41:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

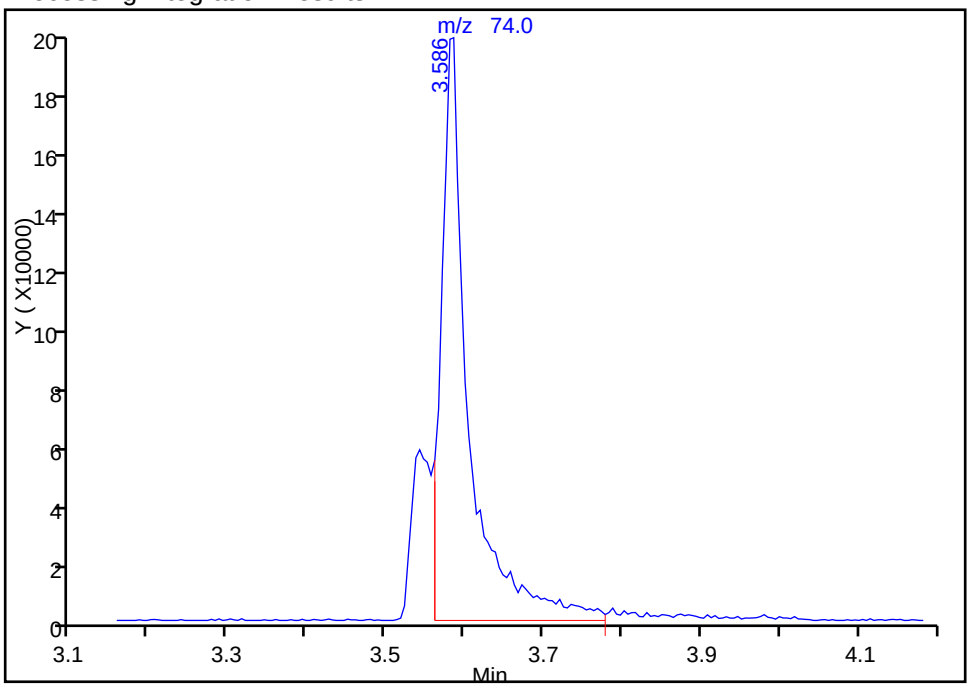
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D
Injection Date: 08-Aug-2015 18:56:30 Instrument ID: A4HP9
Lims ID: std6 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

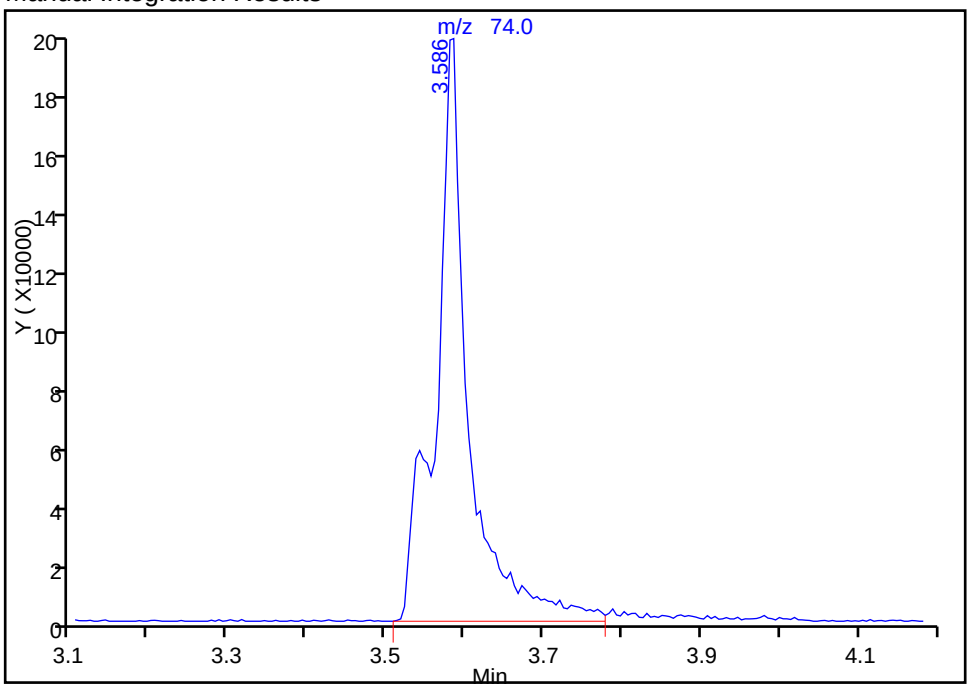
Processing Integration Results

RT: 3.59
Area: 479046
Amount: 8.713313
Amount Units: ng/ul



Manual Integration Results

RT: 3.59
Area: 577074
Amount: 10.267494
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:41:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

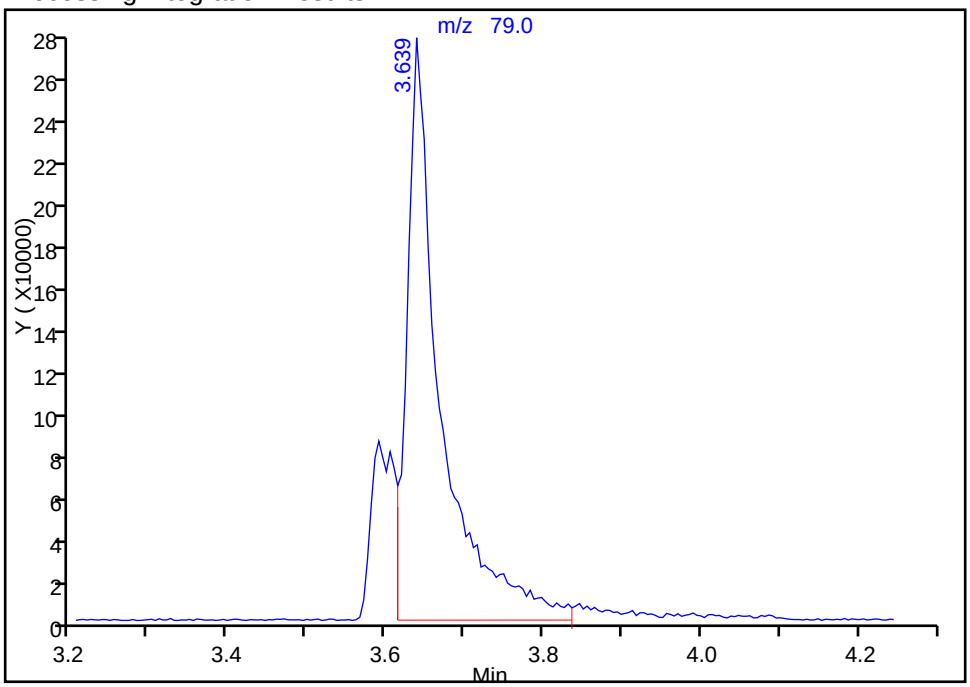
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D
Injection Date: 08-Aug-2015 18:56:30 Instrument ID: A4HP9
Lims ID: std6 lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

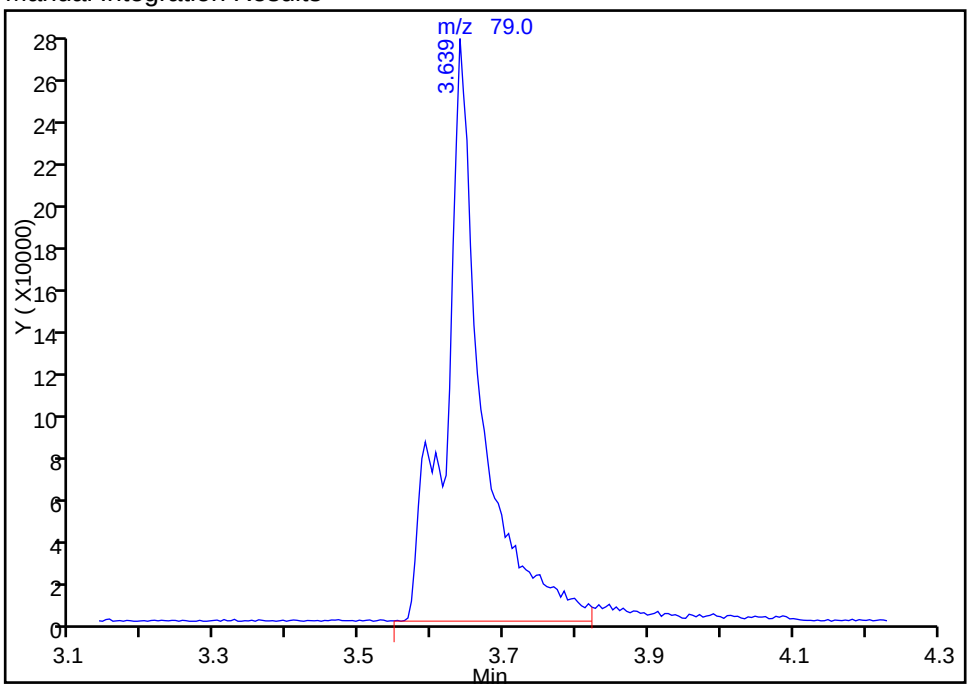
Processing Integration Results

RT: 3.64
Area: 819930
Amount: 8.603807
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 976486
Amount: 10.040424
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:41:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

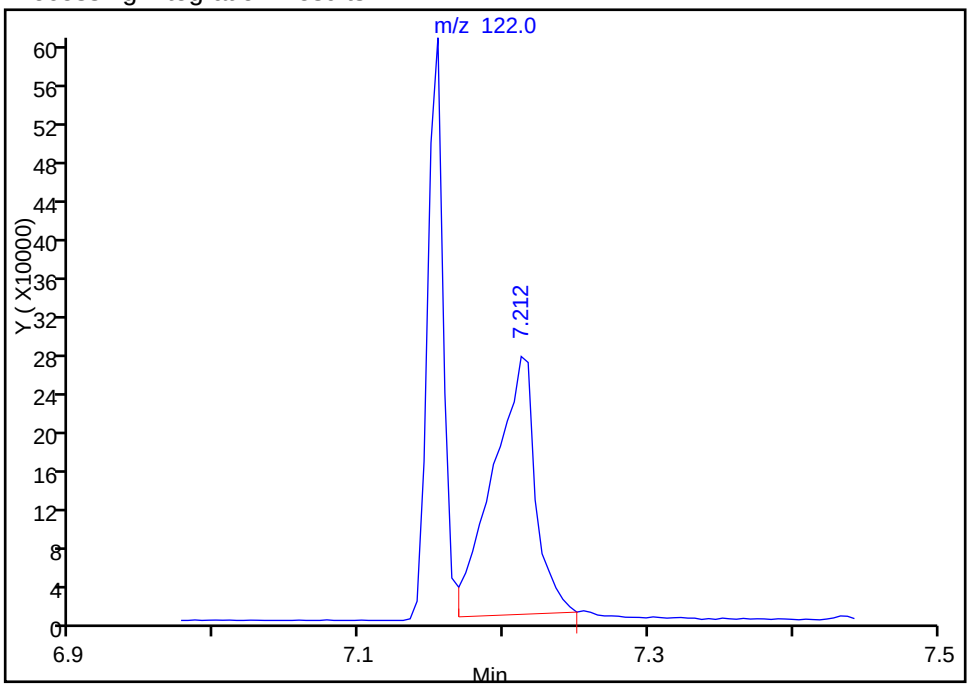
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D				
Injection Date:	08-Aug-2015 18:56:30	Instrument ID:	A4HP9		
Lims ID:	std6 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

71 Benzoic acid, CAS: 65-85-0

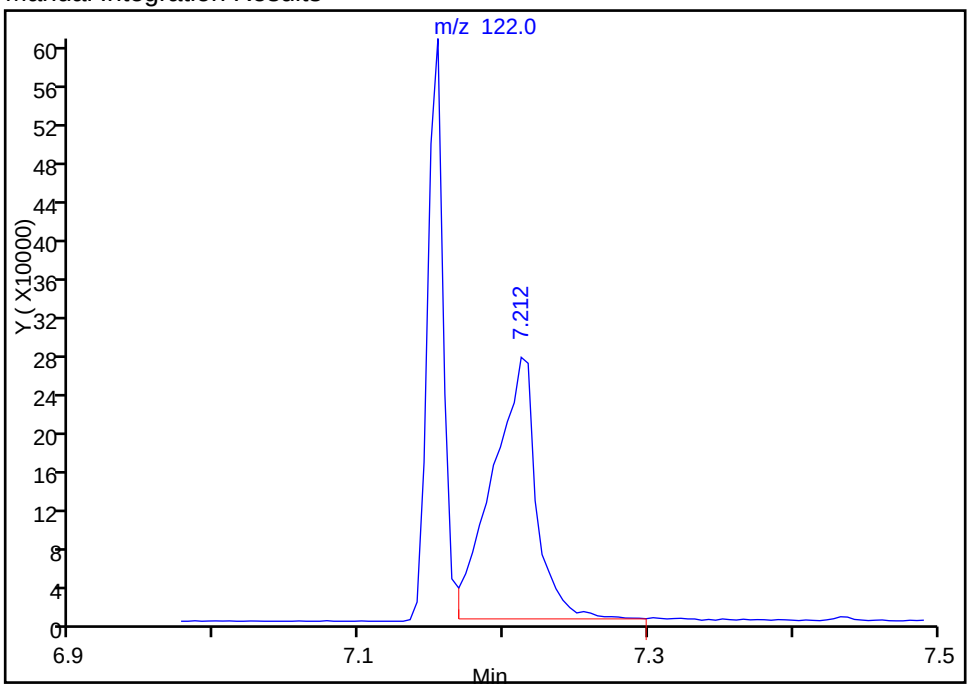
Processing Integration Results

RT: 7.21
Area: 555011
Amount: 19.192551
Amount Units: ng/ul



Manual Integration Results

RT: 7.21
Area: 582032
Amount: 19.979761
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:41:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

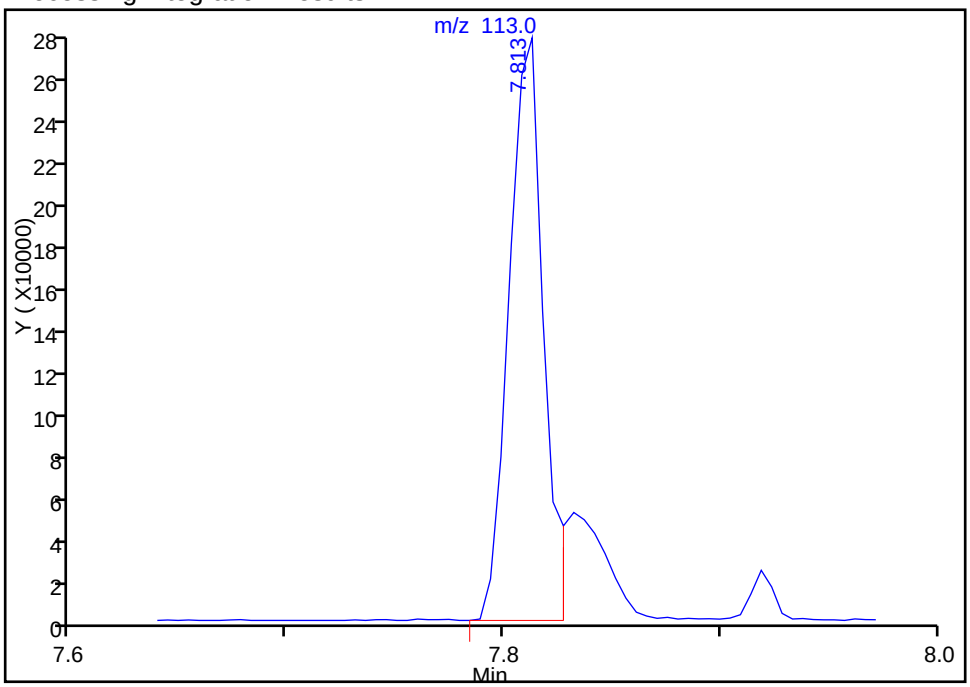
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808010.D				
Injection Date:	08-Aug-2015 18:56:30	Instrument ID:	A4HP9		
Lims ID:	std6 lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

84 Caprolactam, CAS: 105-60-2

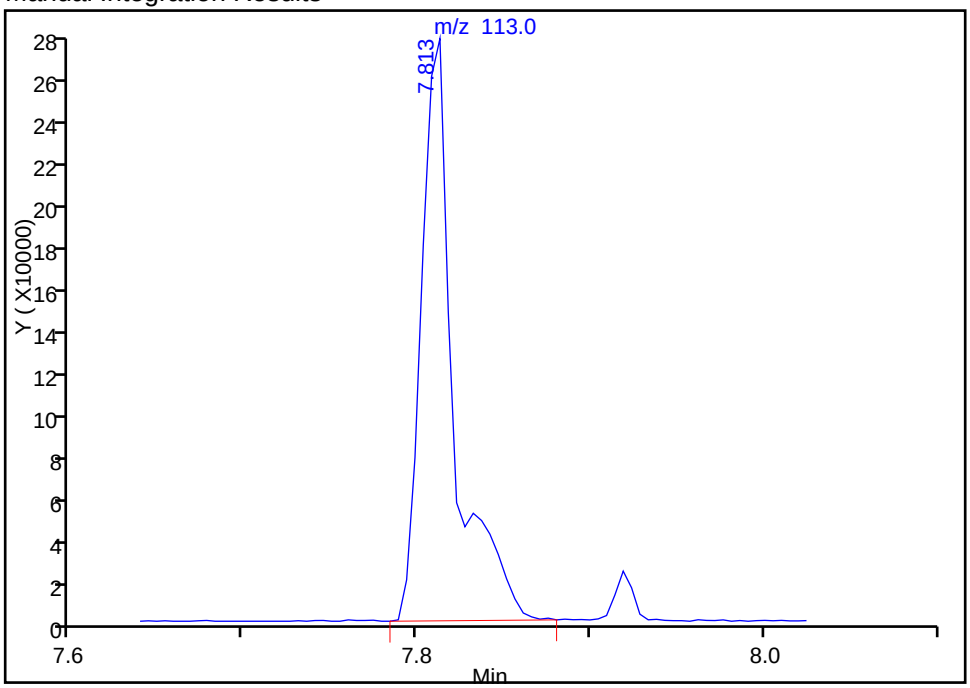
Processing Integration Results

RT: 7.81
Area: 305428
Amount: 17.419193
Amount Units: ng/ul



Manual Integration Results

RT: 7.81
Area: 364519
Amount: 20.360424
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:41:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID (1): CCV 240-194396/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/22/2015 09:56

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.98	100.0
Phenol-d5 (Surr)	5.88	100.0
Nitrobenzene-d5 (Surr)	6.69	100.0
Naphthalene	7.35	100.0
2-Fluorobiphenyl (Surr)	8.23	100.0
Acenaphthylene	8.72	100.0
Acenaphthene	8.86	100.0
Fluorene	9.29	100.0
2,4,6-Tribromophenol (Surr)	9.50	100.0
Phenanthrene	10.11	100.0
Anthracene	10.16	100.0
Fluoranthene	11.12	100.0
Pyrene	11.32	100.0
Terphenyl-d14 (Surr)	11.41	100.0
Benzo[a]anthracene	12.34	100.0
Chrysene	12.37	100.0
Benzo[b]fluoranthene	13.48	35.00
Benzo[k]fluoranthene	13.51	100.0
Benzo[a]pyrene	13.91	100.0
Indeno[1,2,3-cd]pyrene	15.76	100.0
Dibenz(a,h)anthracene	15.76	100.0

Resolution Report

TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822002.D				
Injection Date:	22-Aug-2015 09:56:30	Instrument ID:	A4HP9		
Lims ID:	ccv lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

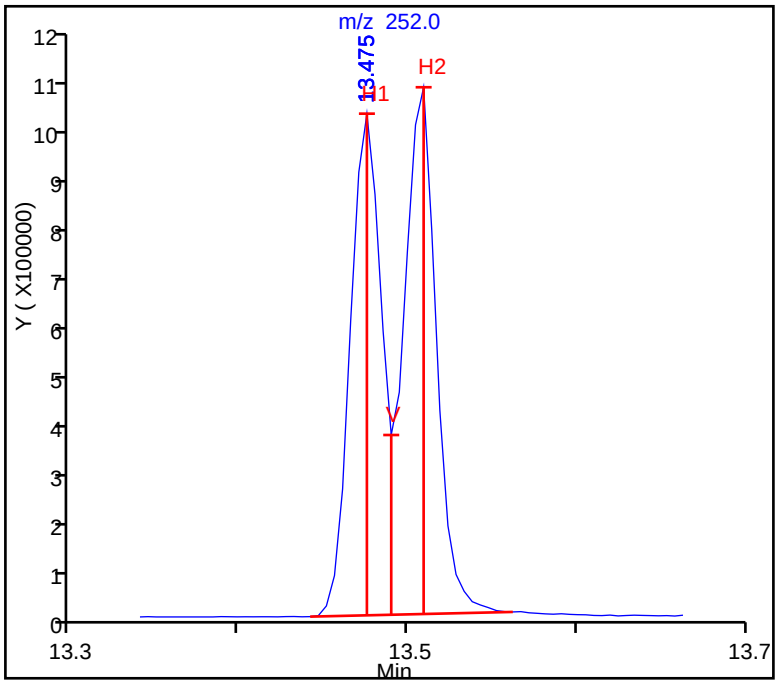
182 Benzo[b]fluoranthene - 183 Benzo[k]fluoranthene

SW-846 Method

Version C: %R = (V / (H1 + H2)) * 100
Version D: %R = (V / ((H1 + H2)/2)) * 100

V (Valley Height) = 364526
H1(182 Benzo[b]fluoranthen) = 1017316
H2(183 Benzo[k]fluoranthen) = 1068221

Version C: %R = 17.5 <= 50.0
Version D: %R = 35.0 <= 50.0
Passed



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D
Lims ID: icv lst1
Client ID:
Sample Type: ICV
Inject. Date: 08-Aug-2015 19:22:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-011
Misc. Info.: ICV LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist:

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:33:10 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 09-Aug-2015 16:42:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.378	6.380	-0.002	92	140419	4.00	4.00	
* 2 Naphthalene-d8	136	7.489	7.491	-0.002	98	526526	4.00	4.00	
* 3 Acenaphthene-d10	164	8.994	8.996	-0.002	92	301734	4.00	4.00	
* 4 Phenanthrene-d10	188	10.263	10.265	-0.002	97	447684	4.00	4.00	
* 5 Chrysene-d12	240	12.557	12.559	-0.002	97	545931	4.00	4.00	
* 6 Perylene-d12	264	14.336	14.334	0.002	98	484066	4.00	4.00	
$ 7 2-Fluorophenol	112	5.166	5.163	0.003	95	617662	10.0	10.1	
$ 8 Phenol-d5	99	6.012	6.010	0.002	96	877483	10.0	10.1	
$ 9 Nitrobenzene-d5	82	6.849	6.851	-0.002	84	1030127	10.0	10.1	
$ 10 2-Fluorobiphenyl (Surr)	172	8.393	8.395	-0.002	98	983944	10.0	9.98	
$ 11 2,4,6-Tribromophenol	330	9.662	9.664	-0.002	78	101107	10.0	10.3	
$ 12 Terphenyl-d14	244	11.586	11.588	-0.002	99	1075611	10.0	10.7	
25 1,4-Dioxane	88	3.117	3.115	0.002	87	325582	10.0	9.41	M
26 N-Nitrosodimethylamine	74	3.579	3.586	-0.007	86	495626	10.0	8.34	M
27 Pyridine	79	3.642	3.639	0.003	92	977788	10.0	9.51	M
41 Benzaldehyde	77	5.979	5.981	-0.002	87	1527315	20.0	18.7	
43 Phenol	94	6.022	6.024	-0.002	95	896604	10.0	9.20	
44 Aniline	93	6.075	6.072	0.003	96	1179524	10.0	9.38	
69 Bis(2-chloroethyl)ether	93	6.113	6.111	0.002	97	822240	10.0	9.35	
46 2-Chlorophenol	128	6.190	6.192	-0.002	88	511279	10.0	9.57	
243 n-Decane	57	6.219	6.221	-0.002	97	649785	10.0	9.26	
47 1,3-Dichlorobenzene	146	6.335	6.332	0.003	88	530500	10.0	9.27	
48 1,4-Dichlorobenzene	146	6.392	6.394	-0.002	84	543791	10.0	9.30	
49 Benzyl alcohol	108	6.474	6.476	-0.002	83	405703	10.0	9.38	
50 1,2-Dichlorobenzene	146	6.532	6.534	-0.002	85	509545	10.0	9.19	
51 2-Methylphenol	108	6.561	6.563	-0.002	90	562896	10.0	9.40	
53 2,2'-oxybis[1-chloropropan	45	6.594	6.592	0.002	98	608787	10.0	9.20	
52 Indene	115	6.609	6.611	-0.002	88	1948017	20.0	17.4	
21 3 & 4 Methylphenol	108	6.690	6.688	0.002	94	593451	10.0	9.40	
57 N-Nitrosodi-n-propylamine	70	6.705	6.702	0.003	99	643236	10.0	9.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
58 Acetophenone	105	6.714	6.712	0.002	88	914673	10.0	9.25	
61 Hexachloroethane	117	6.839	6.837	0.002	90	265445	10.0	9.26	
62 Nitrobenzene	77	6.868	6.866	0.002	78	989080	10.0	9.70	
64 Isophorone	82	7.070	7.068	0.002	97	1617327	10.0	10.0	
66 2-Nitrophenol	139	7.147	7.149	-0.002	78	232743	10.0	9.85	
65 2,4-Dimethylphenol	107	7.152	7.154	-0.002	94	604878	10.0	9.39	
71 Benzoic acid	122	7.215	7.212	0.003	81	608058	20.0	20.5	
70 Bis(2-chloroethoxy)methane	93	7.229	7.231	-0.002	97	881809	10.0	9.91	
73 2,4-Dichlorophenol	162	7.349	7.351	-0.002	90	391024	10.0	9.70	
74 1,2,4-Trichlorobenzene	180	7.436	7.438	-0.002	88	417420	10.0	9.75	
75 Naphthalene	128	7.508	7.510	-0.002	98	1464526	10.0	9.73	
76 4-Chloroaniline	127	7.527	7.529	-0.002	88	604657	10.0	9.31	M
77 2,6-Dichlorophenol	162	7.546	7.548	-0.002	86	382376	10.0	9.79	
79 Hexachlorobutadiene	225	7.614	7.611	0.003	94	256622	10.0	9.66	
84 Caprolactam	113	7.811	7.813	-0.002	86	371470	20.0	20.4	M
86 4-Chloro-3-methylphenol	107	7.921	7.919	0.002	86	544986	10.0	9.90	
87 2-Methylnaphthalene	142	8.099	8.097	0.002	89	832200	10.0	9.02	
88 1-Methylnaphthalene	142	8.186	8.188	-0.002	88	784866	10.0	9.67	
89 Hexachlorocyclopentadiene	237	8.239	8.241	-0.002	94	249683	10.0	9.98	
91 1,2,4,5-Tetrachlorobenzene	216	8.244	8.246	-0.002	94	407613	10.0	9.50	
92 2,4,6-Trichlorophenol	196	8.325	8.328	-0.003	89	284724	10.0	10.1	
93 2,4,5-Trichlorophenol	196	8.359	8.361	-0.002	87	302862	10.0	10.2	
98 1,1'-Biphenyl	154	8.484	8.486	-0.002	97	1037985	10.0	9.28	
100 2-Chloronaphthalene	162	8.518	8.520	-0.002	98	846085	10.0	9.58	
102 2-Nitroaniline	65	8.575	8.578	-0.003	69	478500	10.0	10.4	
105 Dimethyl phthalate	163	8.710	8.712	-0.002	92	943383	10.0	9.87	
106 1,3-Dinitrobenzene	168	8.744	8.746	-0.002	77	156075	10.0	10.5	
107 2,6-Dinitrotoluene	165	8.768	8.770	-0.002	75	224759	10.0	10.6	
109 Acenaphthylene	152	8.878	8.876	0.002	98	1293465	10.0	9.18	
110 3-Nitroaniline	138	8.922	8.919	0.003	85	227806	10.0	9.88	
111 2,4-Dinitrophenol	184	9.008	9.010	-0.002	96	195885	20.0	17.9	
112 Acenaphthene	153	9.023	9.025	-0.002	98	844532	10.0	9.33	
113 4-Nitrophenol	109	9.032	9.030	0.002	84	412363	20.0	21.5	
114 2,4-Dinitrotoluene	165	9.119	9.116	0.003	79	274257	10.0	9.72	
116 Dibenzofuran	168	9.167	9.169	-0.002	95	1154416	10.0	9.28	
119 2,3,4,6-Tetrachlorophenol	232	9.263	9.265	-0.002	79	228209	10.0	9.61	
121 Diethyl phthalate	149	9.302	9.304	-0.002	94	846254	10.0	9.01	
247 Hexadecane	57	9.306	9.309	-0.002	97	723157	10.0	9.43	
123 4-Chlorophenyl phenyl ethe	204	9.431	9.434	-0.003	91	448203	10.0	9.68	
125 4-Nitroaniline	138	9.441	9.443	-0.002	75	241130	10.0	10.8	
126 Fluorene	166	9.460	9.462	-0.002	100	960028	10.0	9.23	
128 4,6-Dinitro-2-methylphenol	198	9.475	9.472	0.003	94	281793	20.0	20.5	
131 N-Nitrosodiphenylamine	169	9.528	9.525	0.003	97	1218057	20.0	19.1	
133 Azobenzene	77	9.571	9.568	0.003	93	1980487	10.0	11.2	
132 1,2-Diphenylhydrazine	77	9.571	9.568	0.003	99	1981011	10.0	11.2	
139 4-Bromophenyl phenyl ether	248	9.855	9.852	0.003	74	244265	10.0	10.2	
142 Atrazine	200	9.951	9.948	0.003	89	479804	20.0	20.1	
141 Hexachlorobenzene	284	9.946	9.948	-0.002	88	241146	10.0	10.2	
244 n-Octadecane	57	10.081	10.083	-0.002	83	689130	10.0	9.59	
143 Pentachlorophenol	266	10.095	10.097	-0.002	88	368166	20.0	22.8	
148 Phenanthrene	178	10.287	10.285	0.002	99	1282005	10.0	9.03	
149 Anthracene	178	10.331	10.328	0.003	99	1322752	10.0	9.37	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.441	10.443	-0.002	97	1246097	10.0	10.6	
154 Di-n-butyl phthalate	149	10.682	10.679	0.003	99	1501759	10.0	10.7	
159 Fluoranthene	202	11.302	11.304	-0.002	100	1483359	10.0	10.4	
160 Benzidine	184	11.374	11.371	0.003	99	1627635	20.0	19.4	
161 Pyrene	202	11.504	11.506	-0.002	96	1538689	10.0	9.78	
168 Butyl benzyl phthalate	149	11.961	11.963	-0.002	88	742064	10.0	10.1	
173 Bis(2-ethylhexyl) phthalat	149	12.447	12.444	0.003	93	1009372	10.0	10.1	
175 3,3'-Dichlorobenzidine	252	12.480	12.477	0.003	76	933573	20.0	19.0	
177 Benzo[a]anthracene	228	12.548	12.545	0.003	98	1605077	10.0	9.53	
178 Chrysene	228	12.586	12.583	0.003	97	1553279	10.0	9.83	
180 Di-n-octyl phthalate	149	13.101	13.103	-0.002	99	1753571	10.0	10.2	
182 Benzo[b]fluoranthene	252	13.779	13.781	-0.002	97	1409536	10.0	9.83	
183 Benzo[k]fluoranthene	252	13.817	13.814	0.003	99	1496263	10.0	10.3	
184 Benzo[a]pyrene	252	14.255	14.257	-0.002	78	1354445	10.0	9.92	
188 Indeno[1,2,3-cd]pyrene	276	16.279	16.276	0.003	99	1374158	10.0	9.68	
189 Dibenz(a,h)anthracene	278	16.284	16.281	0.003	90	1144254	10.0	10.3	
190 Benzo[g,h,i]perylene	276	16.880	16.882	-0.002	97	1153046	10.0	9.78	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 SS W_00005 Amount Added: 1.00 Units: mL

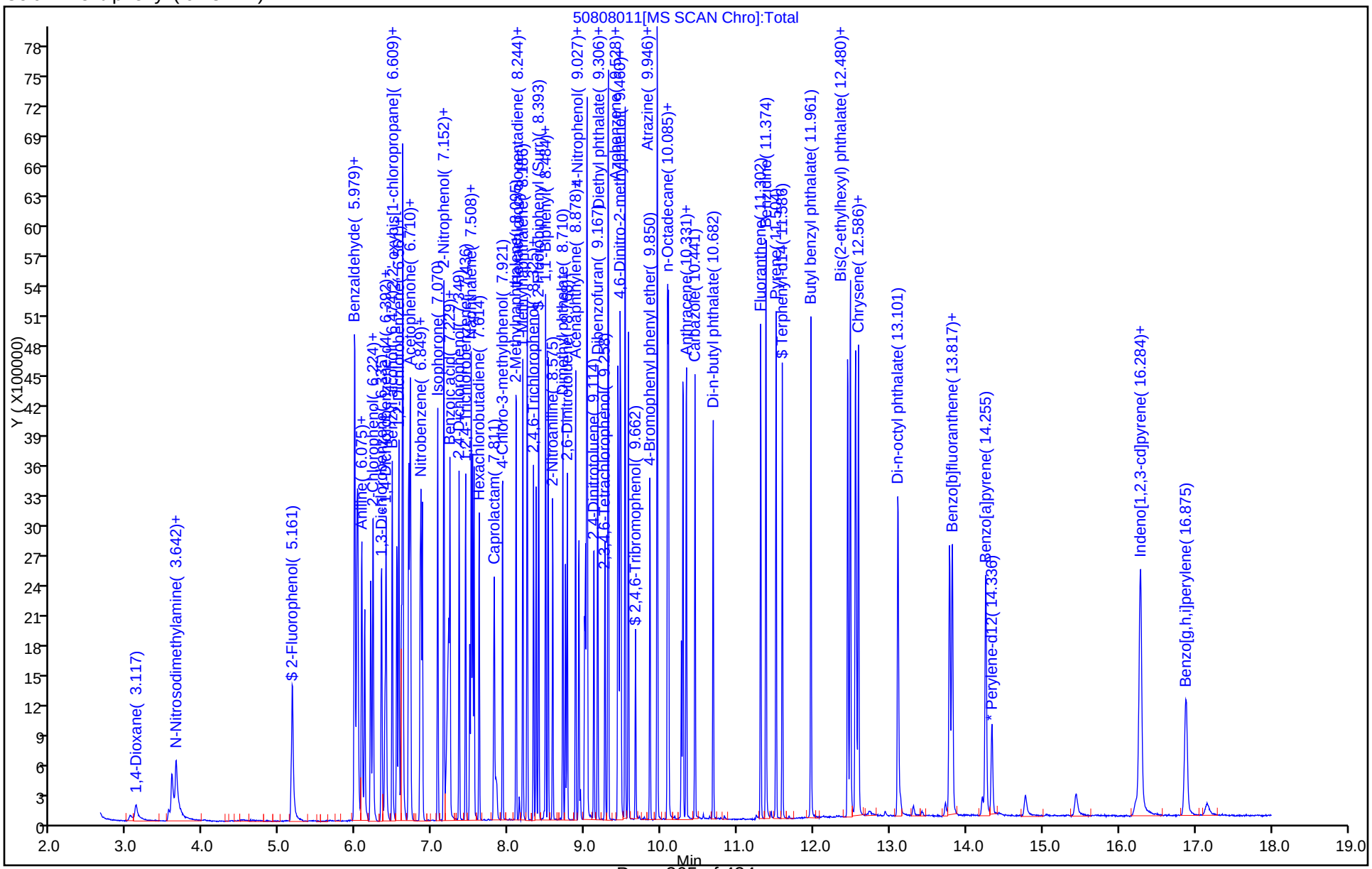
Report Date: 09-Aug-2015 17:33:17 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D

Injection Date:	08-Aug-2015 19:22:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	icv lst1			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

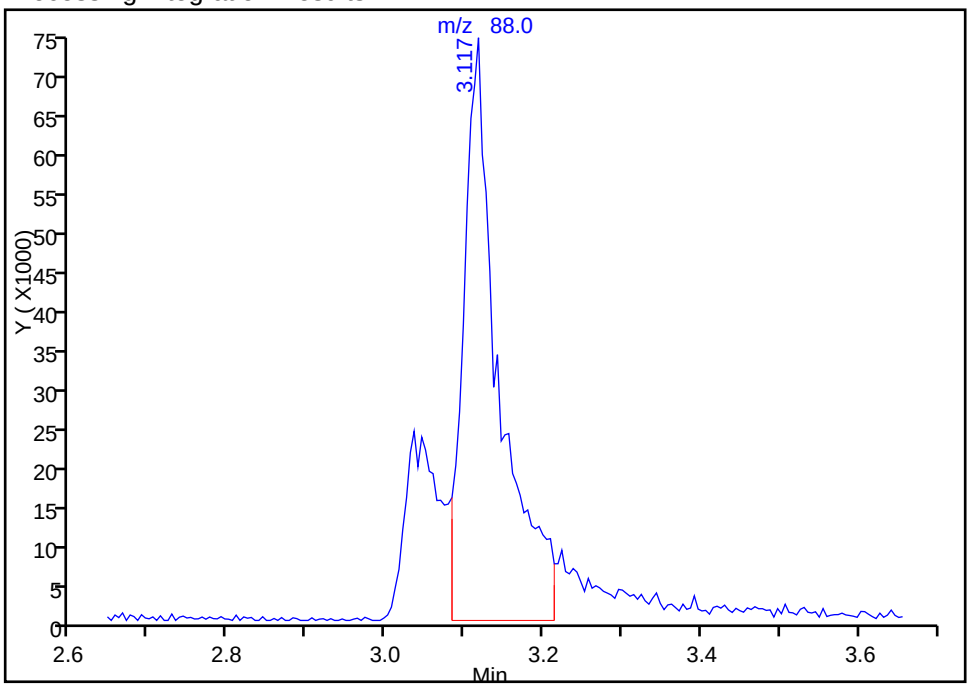
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D
Injection Date: 08-Aug-2015 19:22:30 Instrument ID: A4HP9
Lims ID: icv lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

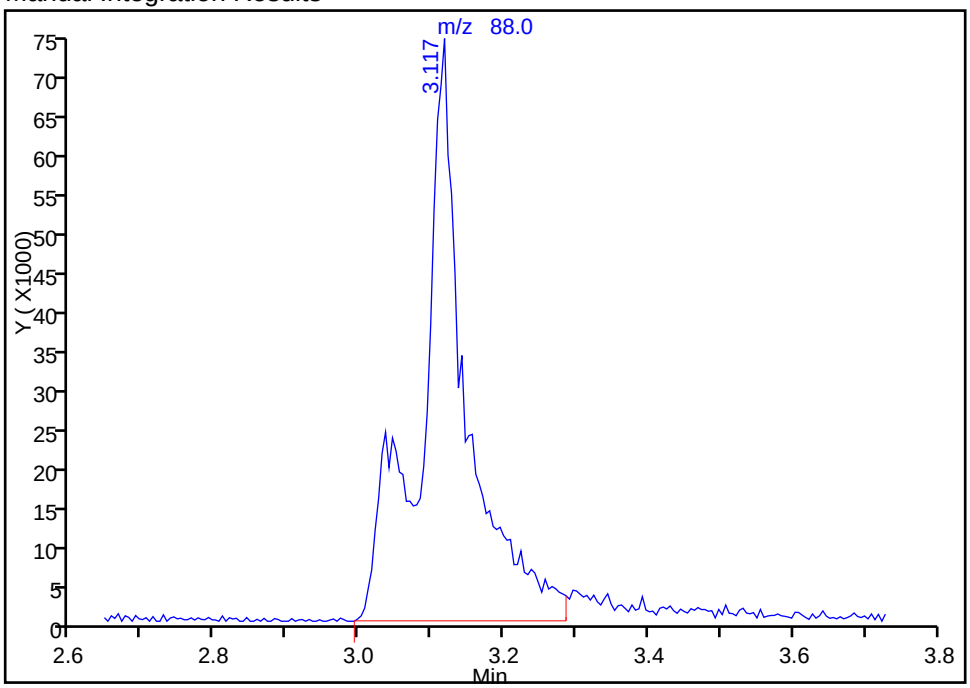
Processing Integration Results

RT: 3.12
Area: 232311
Amount: 6.713984
Amount Units: ng/ul



Manual Integration Results

RT: 3.12
Area: 325582
Amount: 9.409594
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:42:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

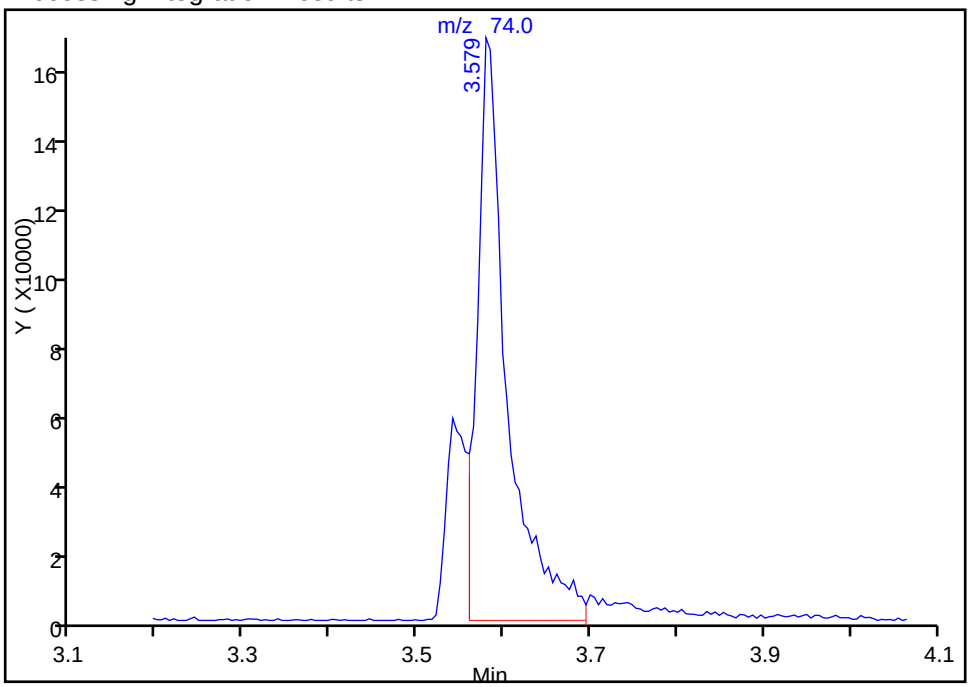
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D
Injection Date: 08-Aug-2015 19:22:30 Instrument ID: A4HP9
Lims ID: icv lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

26 N-Nitrosodimethylamine, CAS: 62-75-9

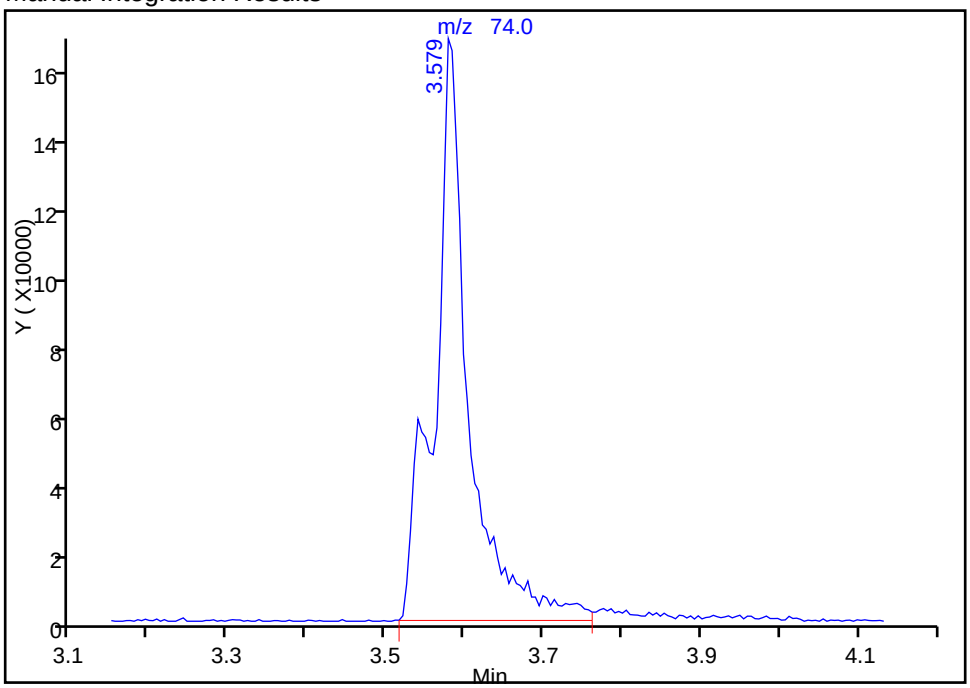
Processing Integration Results

RT: 3.58
Area: 395683
Amount: 6.656530
Amount Units: ng/ul



Manual Integration Results

RT: 3.58
Area: 495626
Amount: 8.337859
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:48:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

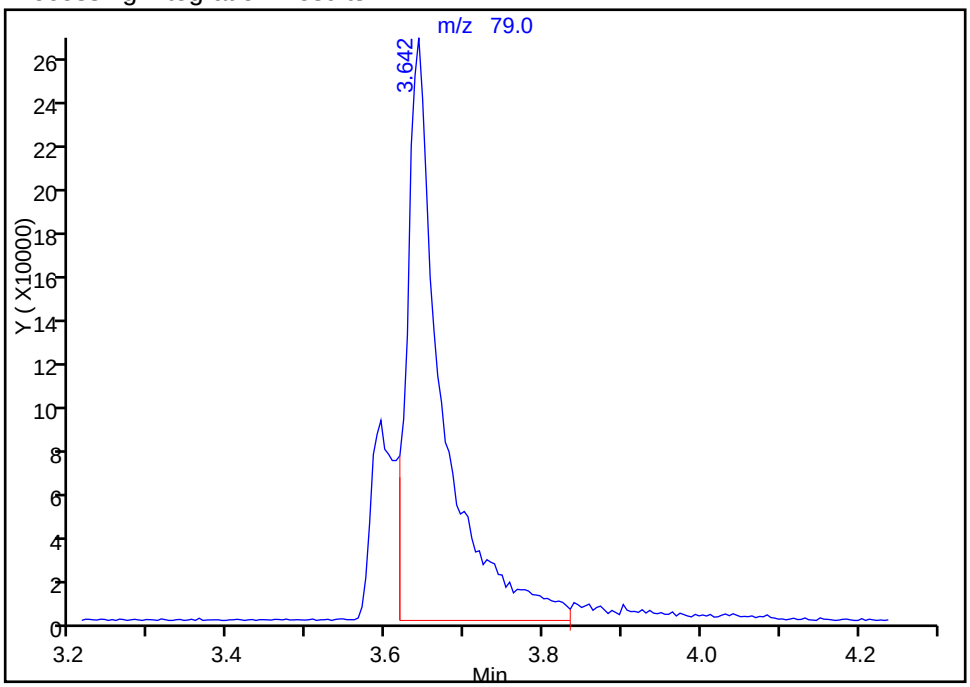
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D
Injection Date: 08-Aug-2015 19:22:30 Instrument ID: A4HP9
Lims ID: icv lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

27 Pyridine, CAS: 110-86-1

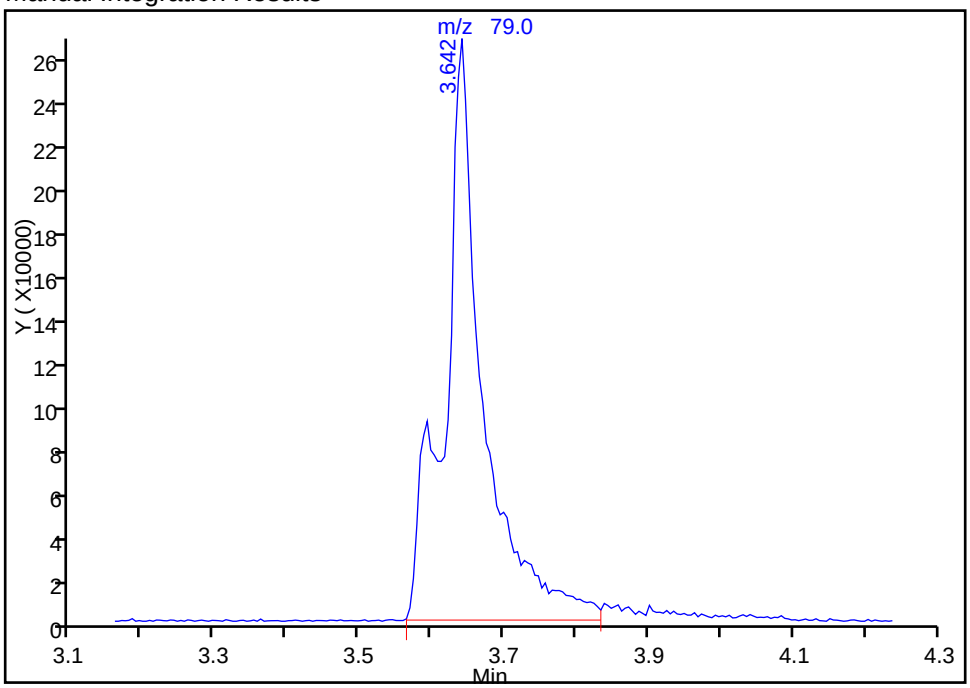
Processing Integration Results

RT: 3.64
Area: 808971
Amount: 7.864779
Amount Units: ng/ul



Manual Integration Results

RT: 3.64
Area: 977788
Amount: 9.506010
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:42:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

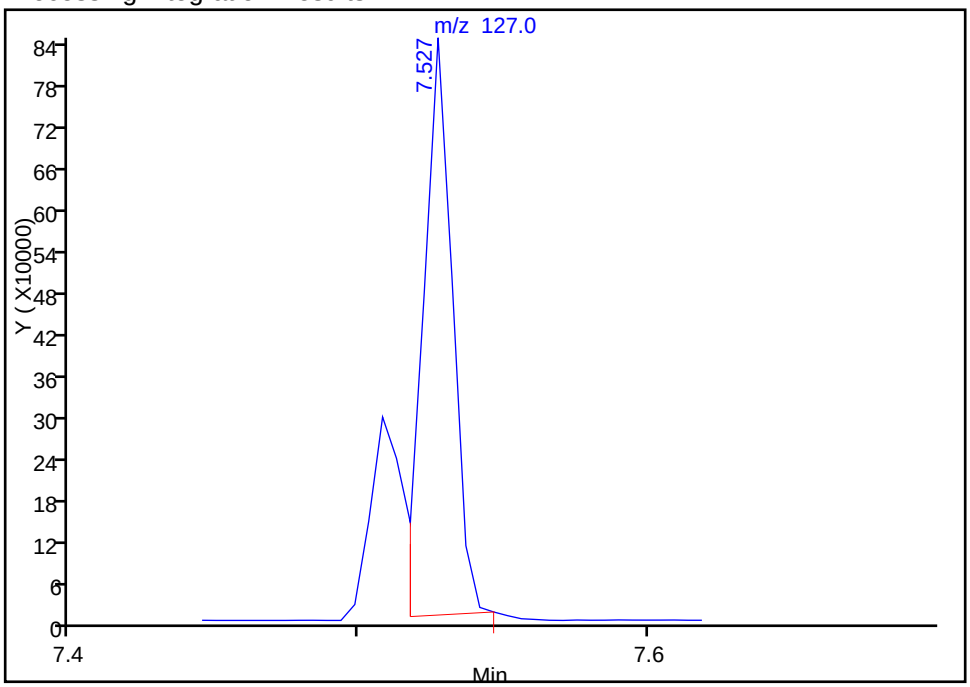
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D
Injection Date: 08-Aug-2015 19:22:30 Instrument ID: A4HP9
Lims ID: icv lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

76 4-Chloroaniline, CAS: 106-47-8

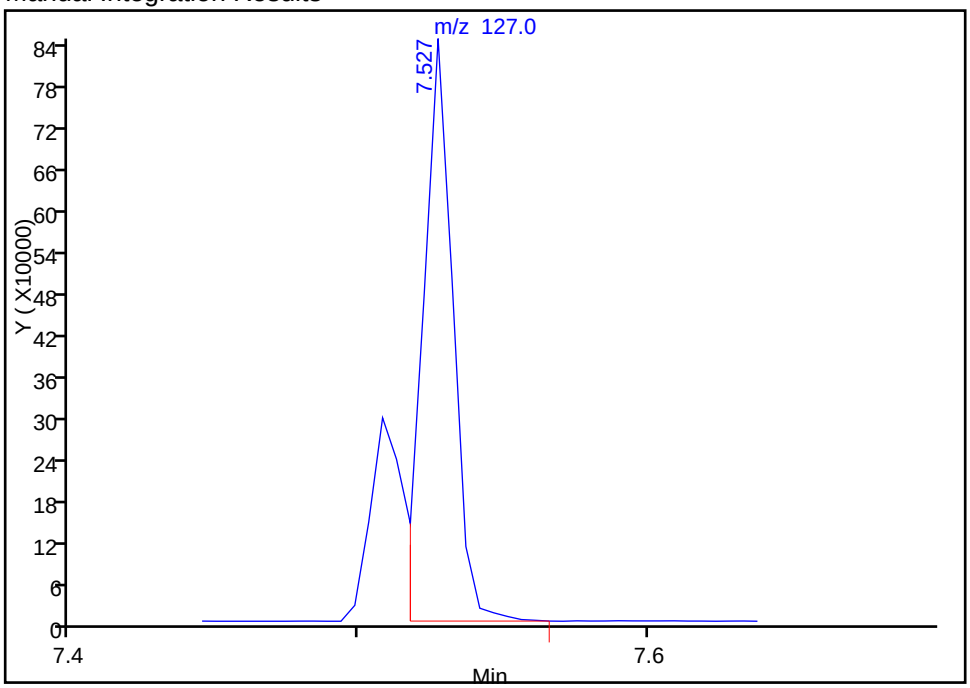
Processing Integration Results

RT: 7.53
Area: 584156
Amount: 8.998086
Amount Units: ng/ul



Manual Integration Results

RT: 7.53
Area: 604657
Amount: 9.313875
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:48:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

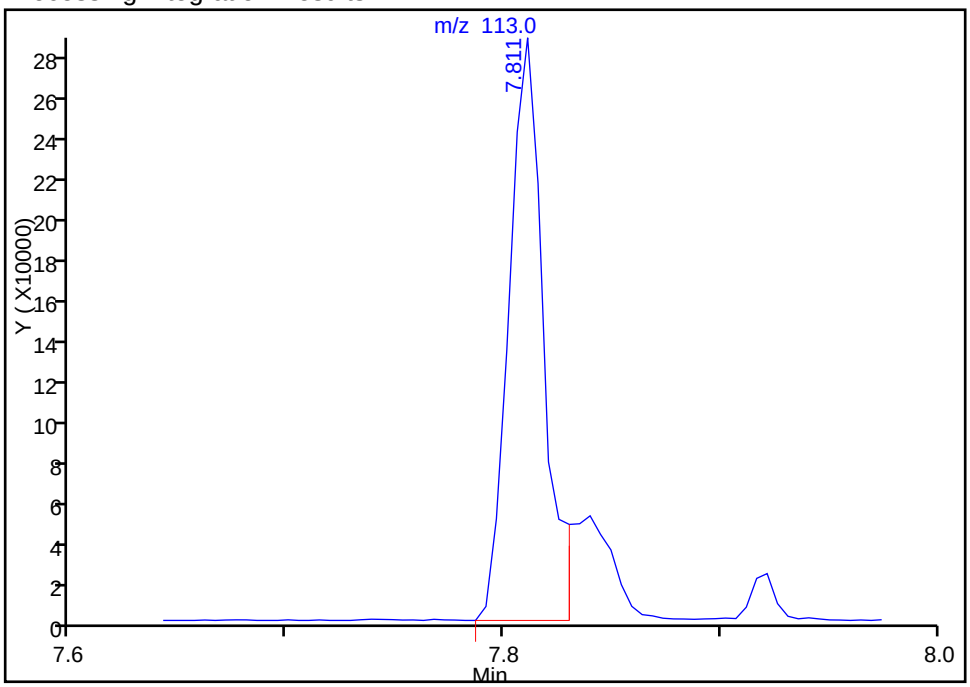
TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808011.D				
Injection Date:	08-Aug-2015 19:22:30	Instrument ID:	A4HP9		
Lims ID:	icv lst1				
Client ID:					
Operator ID:	001710	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		
Column:	5% phenyl (0.18 mm)	Detector	MS SCAN		

84 Caprolactam, CAS: 105-60-2

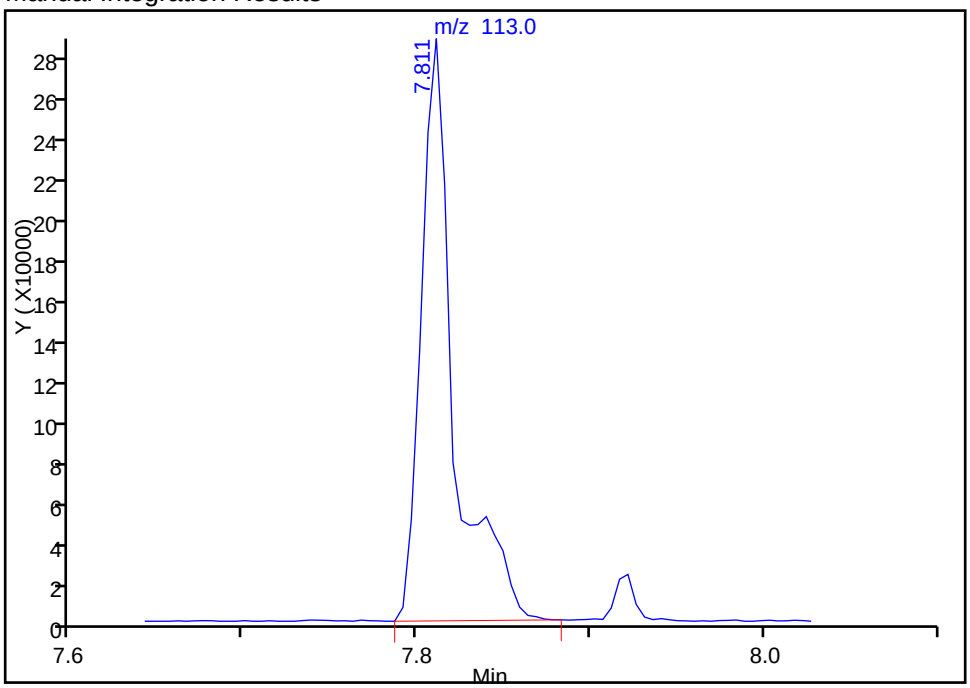
Processing Integration Results

RT: 7.81
Area: 314461
Amount: 17.257268
Amount Units: ng/ul



Manual Integration Results

RT: 7.81
Area: 371470
Amount: 20.385858
Amount Units: ng/ul



Reviewer: ulmanm, 09-Aug-2015 16:48:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	1.064		10.8	10.0	8.0	20.0
N-Nitrosodimethylamine	Ave	1.693	1.874		11.1	10.0	10.7	20.0
Pyridine	Ave	2.930	3.163		10.8	10.0	7.9	20.0
Benzaldehyde	Ave	2.328	2.313	0.0100	19.9	20.0	-0.6	20.0
Phenol	Ave	2.775	2.972	0.8000	10.7	10.0	7.1	20.0
Aniline	Ave	3.583	3.637		10.2	10.0	1.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.662	0.7000	10.6	10.0	6.2	20.0
2-Chlorophenol	Ave	1.523	1.535	0.8000	10.1	10.0	0.8	20.0
n-Decane	Ave	1.999	2.072		10.4	10.0	3.6	20.0
1,3-Dichlorobenzene	Ave	1.630	1.640		10.1	10.0	0.6	20.0
1,4-Dichlorobenzene	Ave	1.666	1.661		9.97	10.0	-0.3	20.0
Benzyl alcohol	Ave	1.232	1.157		9.39	10.0	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.580	1.560		9.87	10.0	-1.3	20.0
2-Methylphenol	Ave	1.706	1.689	0.7000	9.90	10.0	-1.0	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.714		9.09	10.0	-9.1	20.0
Indene	Ave	3.185	3.000		18.8	20.0	-5.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.959	0.5000	9.89	10.0	-1.1	20.0
3 & 4 Methylphenol	Ave	1.799	1.641		9.12	10.0	-8.8	20.0
Acetophenone	Ave	2.817	2.685	0.0100	9.53	10.0	-4.7	20.0
Hexachloroethane	Ave	0.8166	0.7972	0.3000	9.76	10.0	-2.4	20.0
Nitrobenzene	Ave	0.7749	0.7689	0.2000	9.92	10.0	-0.8	20.0
Isophorone	Ave	1.226	1.216	0.4000	9.92	10.0	-0.8	20.0
2-Nitrophenol	Ave	0.1796	0.1897	0.1000	10.6	10.0	5.6	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4672	0.2000	9.55	10.0	-4.5	20.0
Benzoic acid	Lin1		0.1515		13.7	20.0	-31.7*	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6889	0.3000	10.2	10.0	1.9	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2949	0.2000	9.63	10.0	-3.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3218		9.89	10.0	-1.1	20.0
Naphthalene	Ave	1.144	1.071	0.7000	9.36	10.0	-6.4	20.0
4-Chloroaniline	Ave	0.4932	0.4626	0.0100	9.38	10.0	-6.2	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2883		9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2017	0.1912	0.0100	9.48	10.0	-5.2	20.0
Caprolactam	Ave	0.1384	0.1408	0.0100	20.3	20.0	1.7	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.3917	0.2000	9.36	10.0	-6.4	20.0
2-Methylnaphthalene	Ave	0.7006	0.6612	0.4000	9.44	10.0	-5.6	20.0
1-Methylnaphthalene	Ave	0.6168	0.5854		9.49	10.0	-5.1	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.2617	0.0500	7.89	10.0	-21.1*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5731	0.0100	10.1	10.0	0.7	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3742	0.2000	9.99	10.0	-0.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3732	0.2000	9.46	10.0	-5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.419	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.171	1.126	0.8000	9.62	10.0	-3.8	20.0
2-Nitroaniline	Ave	0.6109	0.6459	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.267	1.253	0.0100	9.89	10.0	-1.1	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2152		10.9	10.0	9.1	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2953		10.5	10.0	5.3	20.0
Acenaphthylene	Ave	1.869	1.795	0.9000	9.61	10.0	-3.9	20.0
3-Nitroaniline	Ave	0.3056	0.3136	0.0100	10.3	10.0	2.6	20.0
2,4-Dinitrophenol	Lin1		0.1437	0.0100	19.8	20.0	-1.2	20.0
Acenaphthene	Ave	1.201	1.099	0.9000	9.16	10.0	-8.4	20.0
4-Nitrophenol	Ave	0.2548	0.2595		20.4	20.0	1.8	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.4005	0.2000	10.7	10.0	7.1	20.0
Dibenzofuran	Ave	1.648	1.524	0.8000	9.25	10.0	-7.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3106	0.0100	9.87	10.0	-1.3	20.0
Diethyl phthalate	Ave	1.245	1.167	0.0100	9.38	10.0	-6.2	20.0
Hexadecane	Ave	1.016	0.9637		9.48	10.0	-5.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5927	0.4000	9.66	10.0	-3.4	20.0
4-Nitroaniline	Ave	0.2967	0.3260	0.0100	11.0	10.0	9.9	20.0
Fluorene	Ave	1.379	1.258	0.9000	9.12	10.0	-8.8	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1315	0.0100	21.4	20.0	6.9	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5285	0.0100	18.6	20.0	-7.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.535		9.71	10.0	-2.8	20.0
Azobenzene	Ave	1.580	1.535		9.71	10.0	-2.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2069	0.1000	9.68	10.0	-3.2	20.0
Hexachlorobenzene	Ave	0.2114	0.2042	0.1000	9.66	10.0	-3.4	20.0
Atrazine	Ave	0.2132	0.2163	0.0100	20.3	20.0	1.4	20.0
n-Octadecane	Ave	0.6421	0.6061		9.44	10.0	-5.6	20.0
Pentachlorophenol	Ave	0.1444	0.1228	0.0500	17.0	20.0	-14.9	20.0
Phenanthrene	Ave	1.268	1.165	0.7000	9.18	10.0	-8.2	20.0
Anthracene	Ave	1.261	1.186	0.7000	9.40	10.0	-6.0	20.0
Carbazole	Ave	1.050	1.067	0.0100	10.2	10.0	1.6	20.0
Di-n-butyl phthalate	Ave	1.250	1.294	0.0100	10.4	10.0	3.5	20.0
Fluoranthene	Ave	1.280	1.250	0.6000	9.76	10.0	-2.4	20.0
Benzidine	Lin1		0.6653		21.6	20.0	7.8	20.0
Pyrene	Ave	1.153	1.261	0.6000	10.9	10.0	9.4	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5752	0.0100	10.7	10.0	6.9	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7908	0.0100	10.8	10.0	8.2	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3995	0.0100	22.2	20.0	11.1	20.0
Benzo[a]anthracene	Ave	1.234	1.229	0.8000	9.95	10.0	-0.5	20.0
Chrysene	Ave	1.158	1.170	0.7000	10.1	10.0	1.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.463	0.0100	10.3	10.0	3.1	20.0
Benzo[b]fluoranthene	Ave	1.185	1.138	0.7000	9.60	10.0	-4.0	20.0
Benzo[k]fluoranthene	Ave	1.198	1.248	0.7000	10.4	10.0	4.2	20.0
Benzo[a]pyrene	Ave	1.128	1.152	0.7000	10.2	10.0	2.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.336	0.5000	11.4	10.0	13.9	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.073	0.4000	11.7	10.0	16.7	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.151	0.5000	11.8	10.0	18.2	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.821		10.4	10.0	4.0	20.0
Phenol-d5 (Surr)	Ave	2.475	2.550		10.3	10.0	3.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7618		9.83	10.0	-1.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.234		9.44	10.0	-5.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1295		9.96	10.0	-0.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7745		10.5	10.0	5.2	20.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822002.D
Lims ID: ccv lst1
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Aug-2015 09:56:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-002
Misc. Info.: CCV LST1
Operator ID: 001710 Instrument ID: A4HP9
Sublist: chrom-8270 _9*sub34

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 22-Aug-2015 10:34:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.214	6.214	0.000	93	135257	4.00	4.00	
* 2 Naphthalene-d8	136	7.330	7.330	0.000	98	533129	4.00	4.00	
* 3 Acenaphthene-d10	164	8.830	8.830	0.000	91	298733	4.00	4.00	
* 4 Phenanthrene-d10	188	10.090	10.090	0.000	96	487262	4.00	4.00	
* 5 Chrysene-d12	240	12.345	12.345	0.000	96	505547	4.00	4.00	
* 6 Perylene-d12	264	13.985	13.985	0.000	97	475689	4.00	4.00	
$ 7 2-Fluorophenol	112	4.983	4.983	0.000	95	615733	10.0	10.4	
$ 8 Phenol-d5	99	5.882	5.882	0.000	96	862224	10.0	10.3	
$ 9 Nitrobenzene-d5	82	6.690	6.690	0.000	84	1015334	10.0	9.83	
$ 10 2-Fluorobiphenyl (Surr)	172	8.234	8.234	0.000	99	921446	10.0	9.44	
$ 11 2,4,6-Tribromophenol	330	9.499	9.499	0.000	79	96718	10.0	9.96	
$ 12 Terphenyl-d14	244	11.408	11.408	0.000	98	978851	10.0	10.5	
25 1,4-Dioxane	88	2.425	2.425	0.000	86	359882	10.0	10.8	M
26 N-Nitrosodimethylamine	74	3.026	3.026	0.000	84	633612	10.0	11.1	
27 Pyridine	79	3.098	3.098	0.000	89	1069522	10.0	10.8	
41 Benzaldehyde	77	5.805	5.805	0.000	87	1564562	20.0	19.9	
43 Phenol	94	5.892	5.892	0.000	94	1004812	10.0	10.7	
44 Aniline	93	5.906	5.906	0.000	96	1229734	10.0	10.2	
69 Bis(2-chloroethyl)ether	93	5.950	5.950	0.000	97	900025	10.0	10.6	
46 2-Chlorophenol	128	6.036	6.036	0.000	88	518990	10.0	10.1	
243 n-Decane	57	6.060	6.060	0.000	95	700690	10.0	10.4	
47 1,3-Dichlorobenzene	146	6.166	6.166	0.000	87	554487	10.0	10.1	
48 1,4-Dichlorobenzene	146	6.229	6.229	0.000	84	561686	10.0	9.97	
49 Benzyl alcohol	108	6.320	6.320	0.000	83	391191	10.0	9.39	
50 1,2-Dichlorobenzene	146	6.368	6.368	0.000	86	527391	10.0	9.87	
51 2-Methylphenol	108	6.426	6.426	0.000	89	571009	10.0	9.90	
53 2,2'-oxybis[1-chloropropan	45	6.435	6.435	0.000	99	579650	10.0	9.09	
52 Indene	115	6.450	6.450	0.000	88	2028704	20.0	18.8	
57 N-Nitrosodi-n-propylamine	70	6.546	6.546	0.000	99	662264	10.0	9.89	
58 Acetophenone	105	6.556	6.556	0.000	77	907807	10.0	9.53	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
21 3 & 4 Methylphenol	108	6.556	6.556	0.000	67	554909	10.0	9.12	
61 Hexachloroethane	117	6.676	6.676	0.000	90	269565	10.0	9.76	
62 Nitrobenzene	77	6.709	6.709	0.000	78	1024736	10.0	9.92	
64 Isophorone	82	6.911	6.911	0.000	97	1620782	10.0	9.92	
66 2-Nitrophenol	139	6.988	6.988	0.000	80	252766	10.0	10.6	
65 2,4-Dimethylphenol	107	7.012	7.012	0.000	93	622741	10.0	9.55	
71 Benzoic acid	122	7.075	7.075	0.000	82	403722	20.0	13.7	M
70 Bis(2-chloroethoxy)methane	93	7.075	7.075	0.000	97	918152	10.0	10.2	
73 2,4-Dichlorophenol	162	7.210	7.210	0.000	90	393036	10.0	9.63	
74 1,2,4-Trichlorobenzene	180	7.277	7.277	0.000	87	428880	10.0	9.89	
75 Naphthalene	128	7.349	7.349	0.000	98	1426798	10.0	9.36	
76 4-Chloroaniline	127	7.373	7.373	0.000	88	616542	10.0	9.38	
77 2,6-Dichlorophenol	162	7.392	7.392	0.000	87	384182	10.0	9.72	
79 Hexachlorobutadiene	225	7.455	7.455	0.000	94	254831	10.0	9.48	
84 Caprolactam	113	7.657	7.657	0.000	86	375346	20.0	20.3	
86 4-Chloro-3-methylphenol	107	7.787	7.787	0.000	85	522043	10.0	9.36	
87 2-Methylnaphthalene	142	7.936	7.936	0.000	90	881229	10.0	9.44	
88 1-Methylnaphthalene	142	8.027	8.027	0.000	90	780172	10.0	9.49	
89 Hexachlorocyclopentadiene	237	8.080	8.080	0.000	94	195415	10.0	7.89	
91 1,2,4,5-Tetrachlorobenzene	216	8.085	8.085	0.000	95	428039	10.0	10.1	
92 2,4,6-Trichlorophenol	196	8.171	8.171	0.000	92	279469	10.0	9.99	
93 2,4,5-Trichlorophenol	196	8.219	8.219	0.000	87	278704	10.0	9.46	
98 1,1'-Biphenyl	154	8.325	8.325	0.000	97	1059570	10.0	9.57	
100 2-Chloronaphthalene	162	8.354	8.354	0.000	97	840787	10.0	9.62	
102 2-Nitroaniline	65	8.421	8.421	0.000	70	482364	10.0	10.6	
105 Dimethyl phthalate	163	8.551	8.551	0.000	91	936116	10.0	9.89	
106 1,3-Dinitrobenzene	168	8.585	8.585	0.000	76	160707	10.0	10.9	
107 2,6-Dinitrotoluene	165	8.609	8.609	0.000	76	220543	10.0	10.5	
109 Acenaphthylene	152	8.715	8.715	0.000	98	1340749	10.0	9.61	
110 3-Nitroaniline	138	8.763	8.763	0.000	84	234230	10.0	10.3	
111 2,4-Dinitrophenol	184	8.849	8.849	0.000	94	214648	20.0	19.8	
112 Acenaphthene	153	8.859	8.859	0.000	95	820891	10.0	9.16	
113 4-Nitrophenol	109	8.902	8.902	0.000	84	387604	20.0	20.4	
114 2,4-Dinitrotoluene	165	8.955	8.955	0.000	80	299091	10.0	10.7	
116 Dibenzofuran	168	9.003	9.003	0.000	95	1138419	10.0	9.25	
119 2,3,4,6-Tetrachlorophenol	232	9.104	9.104	0.000	78	231986	10.0	9.87	
121 Diethyl phthalate	149	9.143	9.143	0.000	94	871832	10.0	9.38	
247 Hexadecane	57	9.148	9.148	0.000	97	719709	10.0	9.48	
123 4-Chlorophenyl phenyl ethe	204	9.268	9.268	0.000	90	442641	10.0	9.66	
125 4-Nitroaniline	138	9.282	9.282	0.000	76	243490	10.0	11.0	
126 Fluorene	166	9.292	9.292	0.000	99	939339	10.0	9.12	
128 4,6-Dinitro-2-methylphenol	198	9.311	9.311	0.000	95	320465	20.0	21.4	
131 N-Nitrosodiphenylamine	169	9.364	9.364	0.000	98	1287626	20.0	18.6	
132 1,2-Diphenylhydrazine	77	9.402	9.402	0.000	99	1869584	10.0	9.71	
133 Azobenzene	77	9.402	9.402	0.000	92	1869584	10.0	9.71	
139 4-Bromophenyl phenyl ether	248	9.686	9.686	0.000	75	251985	10.0	9.68	
141 Hexachlorobenzene	284	9.777	9.777	0.000	91	248689	10.0	9.66	
142 Atrazine	200	9.787	9.787	0.000	87	526925	20.0	20.3	
244 n-Octadecane	57	9.922	9.922	0.000	85	738340	10.0	9.44	
143 Pentachlorophenol	266	9.931	9.931	0.000	92	299219	20.0	17.0	
148 Phenanthrene	178	10.114	10.114	0.000	99	1419081	10.0	9.18	
149 Anthracene	178	10.157	10.157	0.000	99	1444605	10.0	9.40	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
151 Carbazole	167	10.273	10.273	0.000	97	1299668	10.0	10.2	
154 Di-n-butyl phthalate	149	10.513	10.513	0.000	99	1576373	10.0	10.4	
159 Fluoranthene	202	11.124	11.124	0.000	100	1522625	10.0	9.76	
160 Benzidine	184	11.196	11.196	0.000	99	1681686	20.0	21.6	
161 Pyrene	202	11.321	11.321	0.000	96	1593377	10.0	10.9	
168 Butyl benzyl phthalate	149	11.788	11.788	0.000	88	726910	10.0	10.7	
173 Bis(2-ethylhexyl) phthalat	149	12.249	12.249	0.000	93	999518	10.0	10.8	
175 3,3'-Dichlorobenzidine	252	12.278	12.278	0.000	76	1009788	20.0	22.2	
177 Benzo[a]anthracene	228	12.336	12.336	0.000	99	1552869	10.0	9.95	
178 Chrysene	228	12.369	12.369	0.000	97	1478575	10.0	10.1	
180 Di-n-octyl phthalate	149	12.860	12.860	0.000	99	1740342	10.0	10.3	
182 Benzo[b]fluoranthene	252	13.475	13.475	0.000	97	1353680	10.0	9.60	
183 Benzo[k]fluoranthene	252	13.509	13.509	0.000	98	1484624	10.0	10.4	
184 Benzo[a]pyrene	252	13.908	13.908	0.000	78	1370352	10.0	10.2	
188 Indeno[1,2,3-cd]pyrene	276	15.755	15.755	0.000	98	1588724	10.0	11.4	
189 Dibenz(a,h)anthracene	278	15.760	15.760	0.000	89	1275888	10.0	11.7	
190 Benzo[g,h,i]perylene	276	16.303	16.303	0.000	97	1368996	10.0	11.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMLIST1 L6 W_00006 Amount Added: 1.00 Units: mL

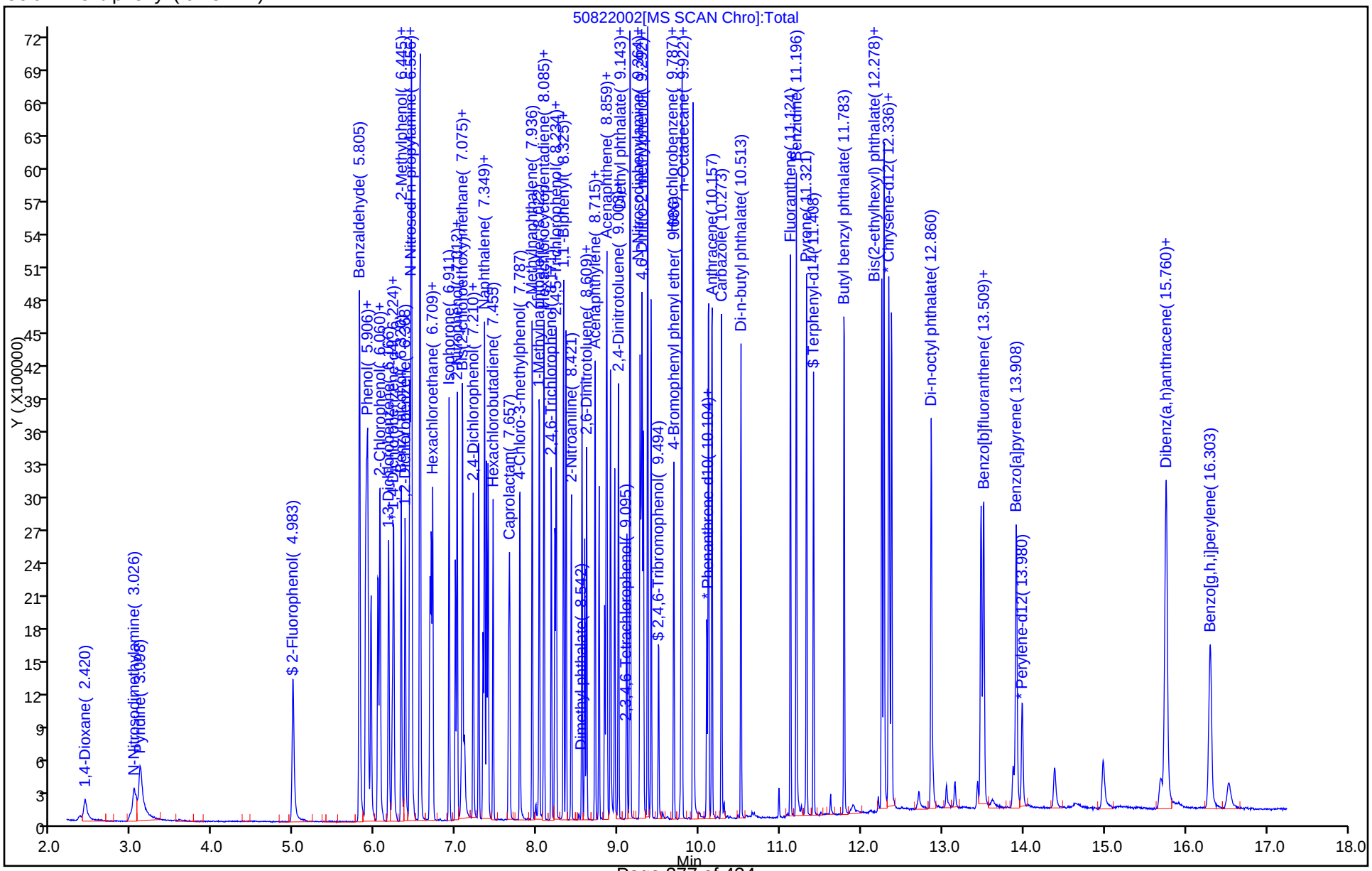
Report Date: 24-Aug-2015 09:26:31 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822002.D

Injection Date:	22-Aug-2015 09:56:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	ccv lst1			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



Manual Integration/User Assign Peak Report

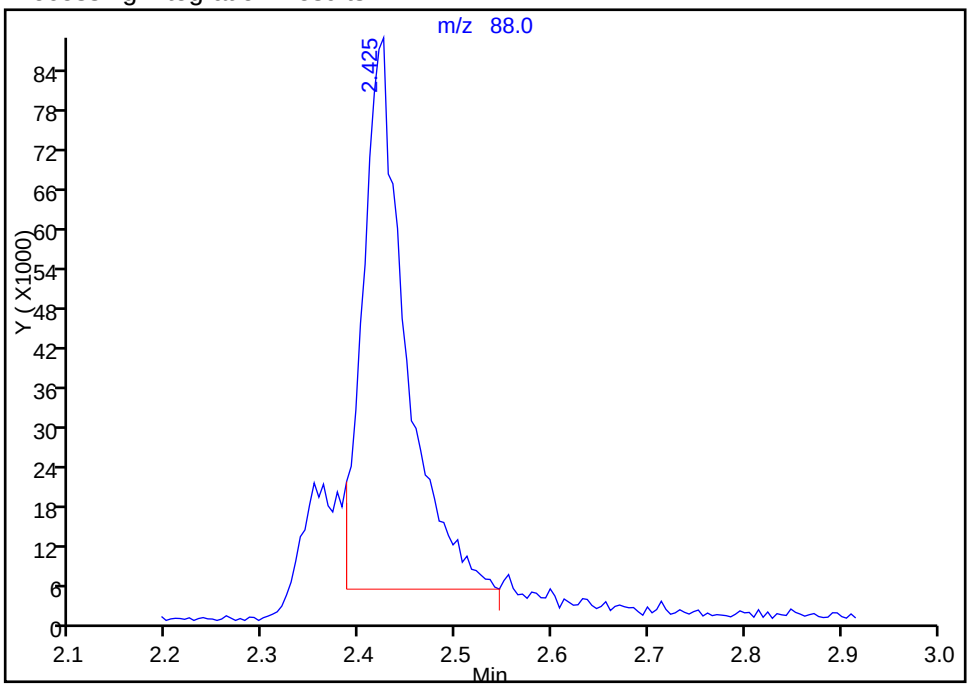
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822002.D
Injection Date: 22-Aug-2015 09:56:30 Instrument ID: A4HP9
Lims ID: ccv lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

25 1,4-Dioxane, CAS: 123-91-1

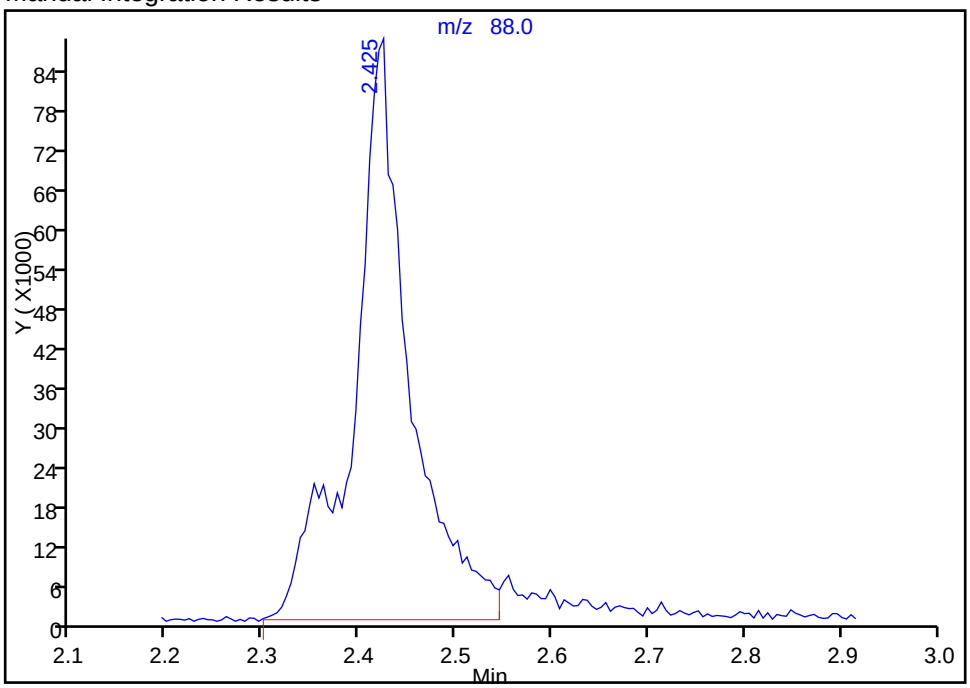
Processing Integration Results

RT: 2.42
Area: 259054
Amount: 7.772611
Amount Units: ng/ul



Manual Integration Results

RT: 2.42
Area: 359882
Amount: 10.797837
Amount Units: ng/ul



Reviewer: ulmanm, 22-Aug-2015 10:34:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

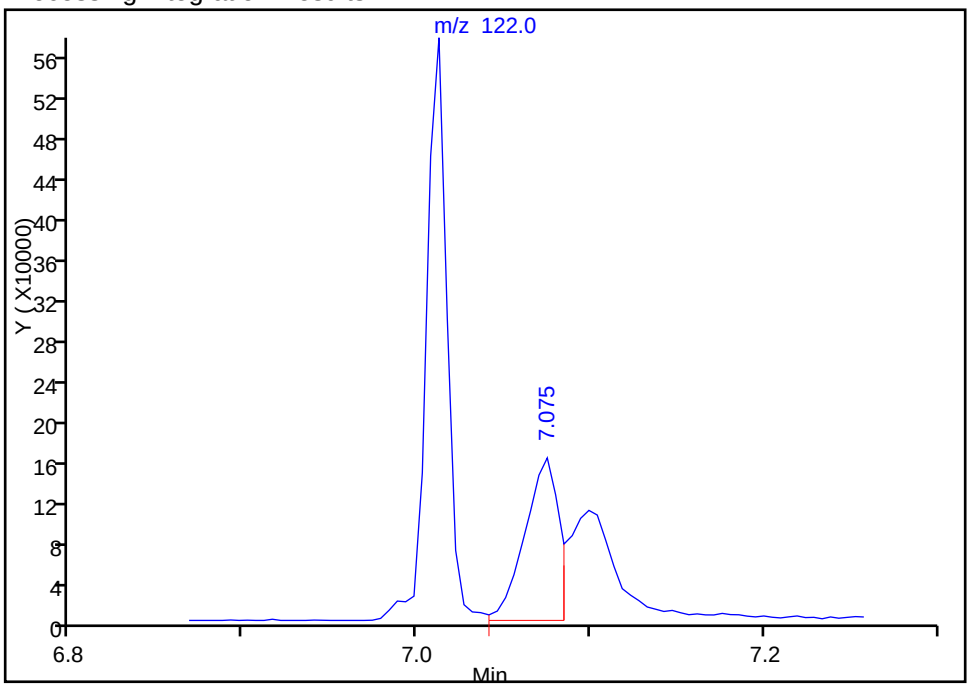
TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822002.D
Injection Date: 22-Aug-2015 09:56:30 Instrument ID: A4HP9
Lims ID: ccv lst1
Client ID:
Operator ID: 001710 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Column: 5% phenyl (0.18 mm) Detector MS SCAN

71 Benzoic acid, CAS: 65-85-0

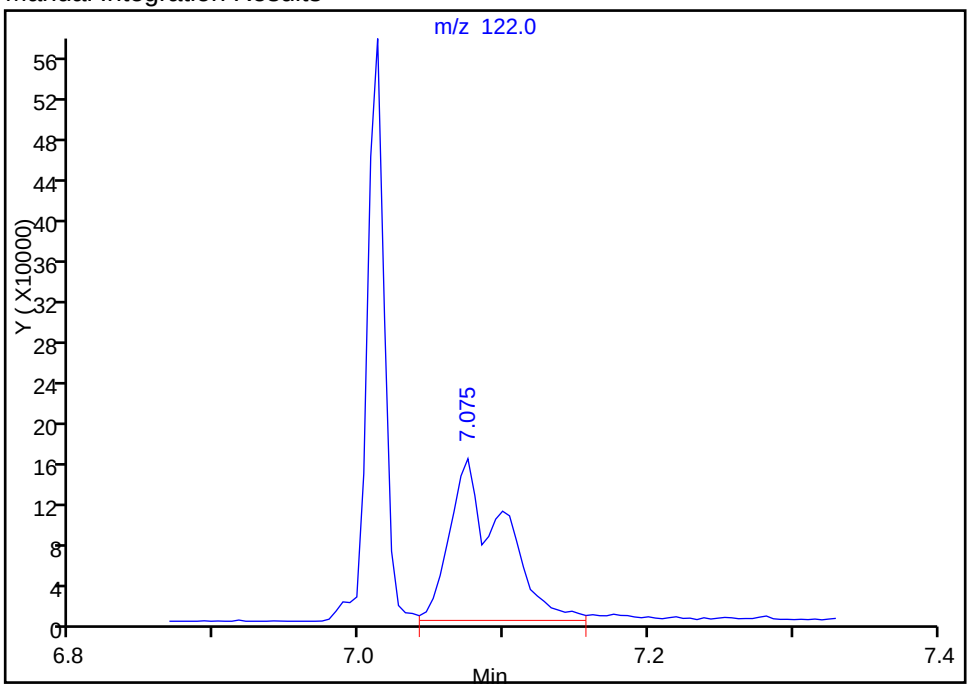
Processing Integration Results

RT: 7.07
Area: 220217
Amount: 7.754316
Amount Units: ng/ul



Manual Integration Results

RT: 7.07
Area: 403722
Amount: 13.664259
Amount Units: ng/ul



Reviewer: ulmanm, 22-Aug-2015 10:34:56
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D
Lims ID: dftpp
Client ID:
Sample Type: DFTPP
Inject. Date: 08-Aug-2015 15:10:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046139-001
Misc. Info.: DFTPP
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 09-Aug-2015 17:32:14 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 08-Aug-2015 15:34:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
143 Pentachlorophenol	266	10.092	10.092	0.000	88	501141	25.0	0	
160 Benzidine	184	11.371	11.371	0.000	99	1483399	25.0	0	
150 DFTPP									
166 4,4'-DDE	246	11.535	11.535	0.000	82	3054		NR	
165 4,4'-DDD	235	11.823	11.823	0.000	95	73011		NR	
170 4,4'-DDT	235	12.083	12.083	0.000	97	1222251	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

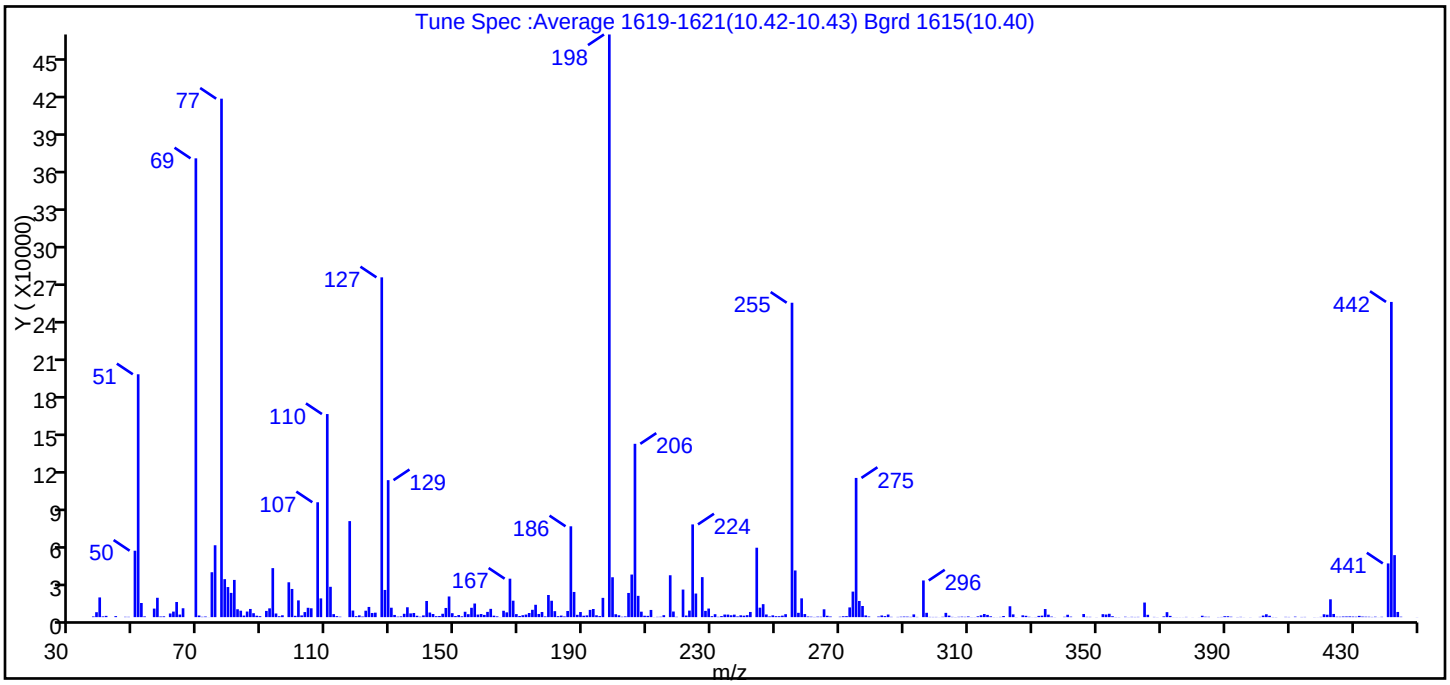
SMDFTPPW_00010 Amount Added: 1.00 Units: mL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D
Injection Date: 08-Aug-2015 15:10:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Tune Method: DFTPP Method CLP OLM4.2

150 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100 percent relative abundance	100
51	30.0 - 80.0 percent of mass 198	41.7
68	Less than 2.0 percent of mass 69	0.0 (0.0)
69	Present	78.7
70	Less than 2.0 percent of mass 69	0.3 (0.4)
127	25.0 - 75.0 percent of mass 198	58.3
197	Less than 1.0 percent of mass 198	0.0
199	5.0 - 9.0 percent of mass 198	6.8
275	10.0 - 30.0 percent of mass 198	23.9
365	Greater than 0.75 percent of mass 198	2.5
441	Present but less than mass 443	9.2 (86.6)
442	40.0 - 110.0 percent of mass 198	54.1
443	15.0 - 24.0 percent of mass 442	10.6 (19.7)

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D\8270 _9.rslt\spectra.d
Injection Date: 08-Aug-2015 15:10:30
Spectrum: Tune Spec :Average 1619-1621(10.42-10.43) Bgrd 1615(10.40)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 351

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	561	144.00	745	236.00	1491	334.00	6407
38.00	3913	145.00	917	237.00	1985	335.00	1957
39.00	15607	146.00	2675	238.00	553	336.00	429
40.00	609	147.00	7265	239.00	1453	337.00	80
41.00	1020	148.00	16360	240.00	1163	340.00	285
44.00	819	149.00	3138	241.00	1571	341.00	1888
47.00	275	150.00	854	242.00	4093	342.00	396
48.00	246	151.00	1650	244.00	54960	346.00	2470
50.00	52584	152.00	660	245.00	7500	347.00	263
51.00	192256	153.00	4256	246.00	10281	348.00	231
52.00	11195	154.00	2331	247.00	2107	350.00	73
53.00	580	155.00	7408	248.00	575	352.00	2355
56.00	6764	156.00	10784	249.00	1426	353.00	2097
57.00	15326	157.00	2039	250.00	744	354.00	2651
58.00	500	158.00	2462	251.00	741	355.00	728
59.00	635	159.00	1767	252.00	1187	356.00	124
61.00	2895	160.00	4154	253.00	2345	357.00	105
62.00	4397	161.00	6561	255.00	248896	359.00	323
63.00	11997	162.00	1159	256.00	36952	360.00	74
64.00	2046	163.00	618	257.00	3417	361.00	234
65.00	7034	164.00	65	258.00	14885	362.00	166
69.00	363200	165.00	5053	259.00	2439	363.00	216
70.00	1286	166.00	3791	260.00	528	365.00	11555
71.00	286	167.00	30440	261.00	348	366.00	1863
72.00	490	168.00	13014	262.00	157	368.00	184
73.00	55	169.00	2407	263.00	389	369.00	77
74.00	35552	170.00	927	264.00	334	371.00	586
75.00	56912	171.00	1531	265.00	6216	372.00	3948
77.00	410432	172.00	2047	266.00	1083	373.00	1000
78.00	30072	173.00	3273	267.00	491	374.00	73
79.00	23816	174.00	5813	270.00	329	375.00	76
80.00	19200	175.00	9787	271.00	700	376.00	59
81.00	29472	176.00	2509	272.00	785	377.00	54

Report Date: 09-Aug-2015 17:32:16 Chrom Revision: 2.2 09-Jul-2015 10:16:20
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D\8270 _9.rslt\spectra.d
Injection Date: 08-Aug-2015 15:10:30
Spectrum: Tune Spec :Average 1619-1621(10.42-10.43) Bgrd 1615(10.40)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 351

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	6261	177.00	4086	273.00	7703	378.00	194
83.00	5104	178.00	572	274.00	20224	380.00	51
84.00	1240	179.00	17528	275.00	110208	382.00	51
85.00	4444	180.00	12976	276.00	12799	383.00	1109
86.00	6484	181.00	4736	277.00	8825	384.00	345
87.00	3122	182.00	776	278.00	1351	385.00	278
88.00	1141	183.00	1234	279.00	522	388.00	121
89.00	759	184.00	546	282.00	485	389.00	160
91.00	4924	185.00	4873	283.00	1339	390.00	730
92.00	6964	186.00	71912	284.00	823	391.00	723
93.00	38800	187.00	19944	285.00	2063	392.00	331
94.00	2893	188.00	1837	286.00	242	394.00	123
95.00	718	189.00	4049	288.00	186	395.00	221
96.00	1466	190.00	1114	289.00	339	396.00	59
98.00	27600	191.00	1391	290.00	455	398.00	78
99.00	22312	192.00	5729	291.00	411	401.00	210
100.00	1047	193.00	6447	292.00	212	402.00	1244
101.00	13265	194.00	1470	293.00	2175	403.00	2277
102.00	1366	195.00	821	294.00	191	404.00	1096
103.00	4005	196.00	15267	296.00	29048	405.00	128
104.00	7411	198.00	461248	297.00	3429	406.00	115
105.00	7008	199.00	31576	298.00	195	409.00	230
107.00	90944	200.00	2306	299.00	168	410.00	167
108.00	14841	201.00	1450	300.00	181	412.00	415
110.00	160768	202.00	334	301.00	55	414.00	155
111.00	24016	203.00	556	302.00	279	415.00	186
112.00	2383	204.00	19144	303.00	3391	418.00	88
113.00	785	205.00	33720	304.00	1207	419.00	55
114.00	327	206.00	137216	305.00	213	420.00	212
117.00	76024	207.00	16856	306.00	115	421.00	2273
118.00	5221	208.00	4325	307.00	262	422.00	1927
119.00	772	209.00	1113	308.00	394	423.00	14118
120.00	1407	210.00	1016	309.00	267	424.00	2519
121.00	473	211.00	5699	310.00	548	425.00	344

Report Date: 09-Aug-2015 17:32:16 Chrom Revision: 2.2 09-Jul-2015 10:16:20
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D\8270 _9.rslt\spectra.d
Injection Date: 08-Aug-2015 15:10:30
Spectrum: Tune Spec :Average 1619-1621(10.42-10.43) Bgrd 1615(10.40)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 351

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	5085	212.00	77	311.00	103	426.00	317
123.00	8075	213.00	245	312.00	83	427.00	503
124.00	3298	214.00	306	313.00	647	428.00	542
125.00	3543	215.00	1541	314.00	1468	429.00	599
127.00	268992	217.00	33160	315.00	2480	430.00	467
128.00	21528	218.00	4454	316.00	1779	431.00	351
129.00	108440	219.00	275	317.00	650	432.00	993
130.00	7463	221.00	21832	318.00	93	433.00	456
131.00	1742	222.00	1257	319.00	59	434.00	358
132.00	415	223.00	5187	320.00	208	435.00	318
133.00	609	224.00	73416	321.00	883	436.00	165
134.00	2656	225.00	18688	323.00	8626	437.00	360
135.00	7816	227.00	31672	324.00	2199	438.00	51
136.00	2967	228.00	4946	325.00	84	439.00	284
137.00	3292	229.00	6807	327.00	1441	441.00	42528
138.00	1096	230.00	770	328.00	1061	442.00	249536
139.00	328	231.00	2332	329.00	287	443.00	49088
140.00	1379	232.00	280	330.00	60	444.00	4112
141.00	12791	233.00	841	331.00	131	445.00	348
142.00	3647	234.00	2064	332.00	997	450.00	63
143.00	2484	235.00	2025	333.00	1186		

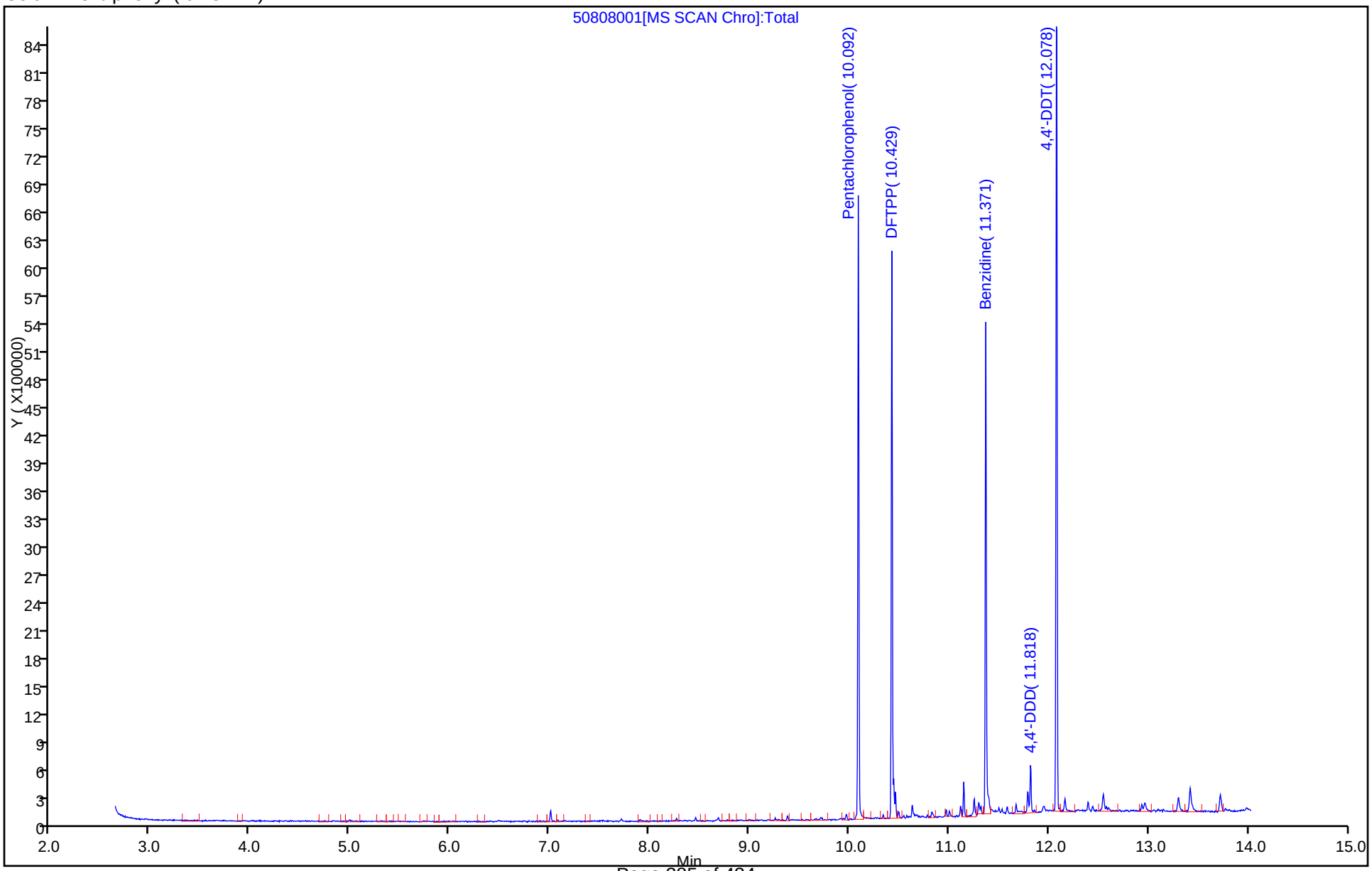
Report Date: 09-Aug-2015 17:32:16 Chrom Revision: 2.2 09-Jul-2015 10:16:20

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D

Injection Date:	08-Aug-2015 15:10:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	dftpp			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)

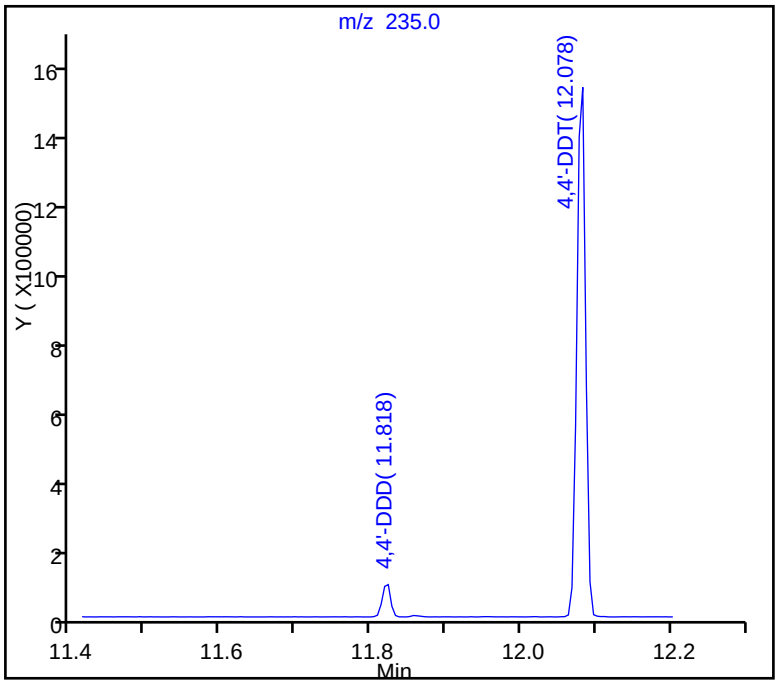


Breakdown Report

TestAmerica Canton

Data File:	\\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D				
Injection Date:	08-Aug-2015 15:10:30	Instrument ID:	A4HP9		
Lims ID:	dftpp				
Client ID:					
Operator ID:	001710	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

170 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

170 4,4'-DDT, Area = 1222251
165 4,4'-DDD, Area = 73011
166 4,4'-DDE, Area = 3054

%Breakdown: 5.86%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Canton

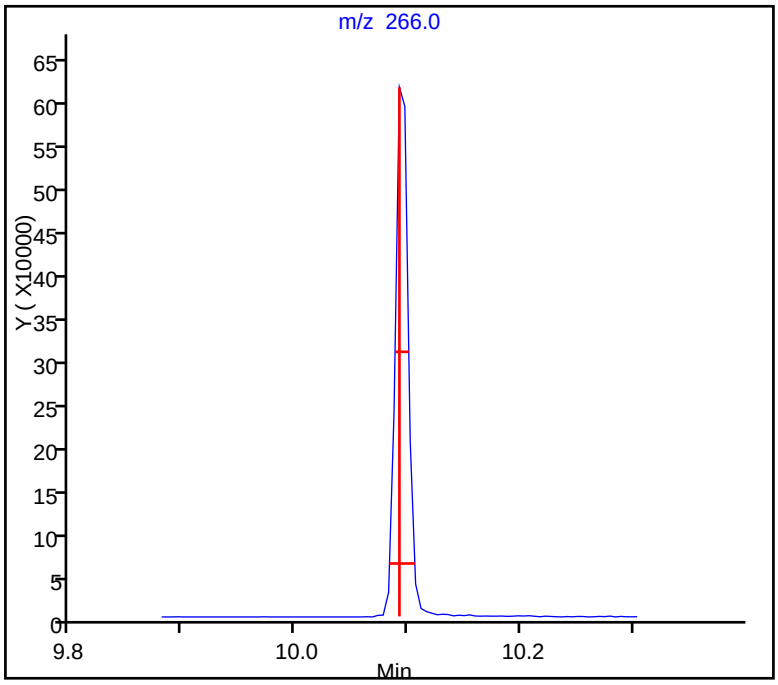
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D
Injection Date: 08-Aug-2015 15:10:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL

143 Pentachlorophenol, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.014 (min.)
Front Width = 0.009 (min.)

Tailing Factor = 1.6, Max. Tailing < 2.00
Passed



Peak Tailing Report

TestAmerica Canton

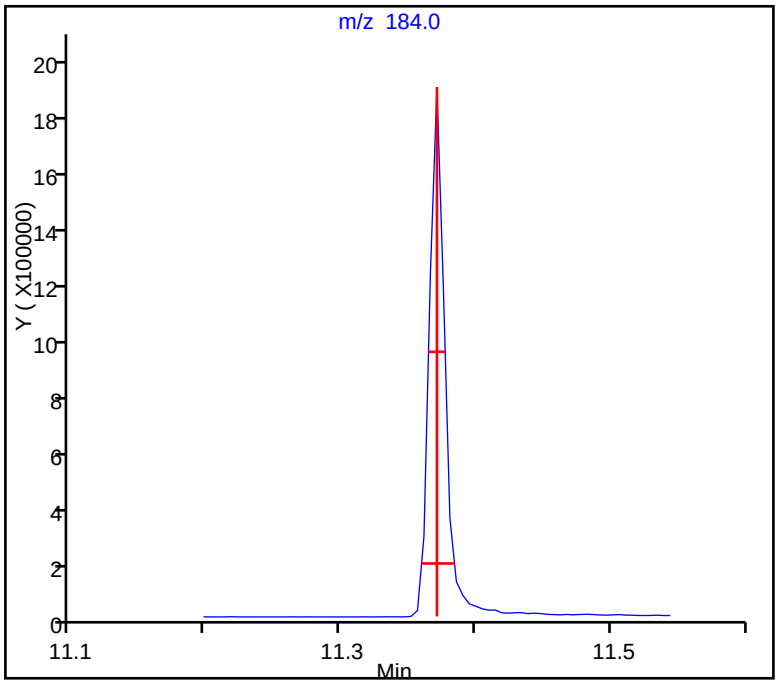
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808001.D
Injection Date: 08-Aug-2015 15:10:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL

160 Benzidine, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.013 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 1.1, Max. Tailing < 2.00
Passed



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D
Lims ID: dftpp
Client ID:
Sample Type: DFTPP
Inject. Date: 22-Aug-2015 09:35:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-001
Misc. Info.: DFTPP
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:27 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 22-Aug-2015 10:00:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
143 Pentachlorophenol	266	9.931	9.931	0.000	87	450403	25.0	0	
160 Benzidine	184	11.200	11.200	0.000	99	2844550	25.0	0	
150 DFTPP									
166 4,4'-DDE	246	11.359	11.359	0.000	80	3719		NR	
165 4,4'-DDD	235	11.643	11.643	0.000	94	37953		NR	
170 4,4'-DDT	235	11.902	11.902	0.000	97	1471250	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

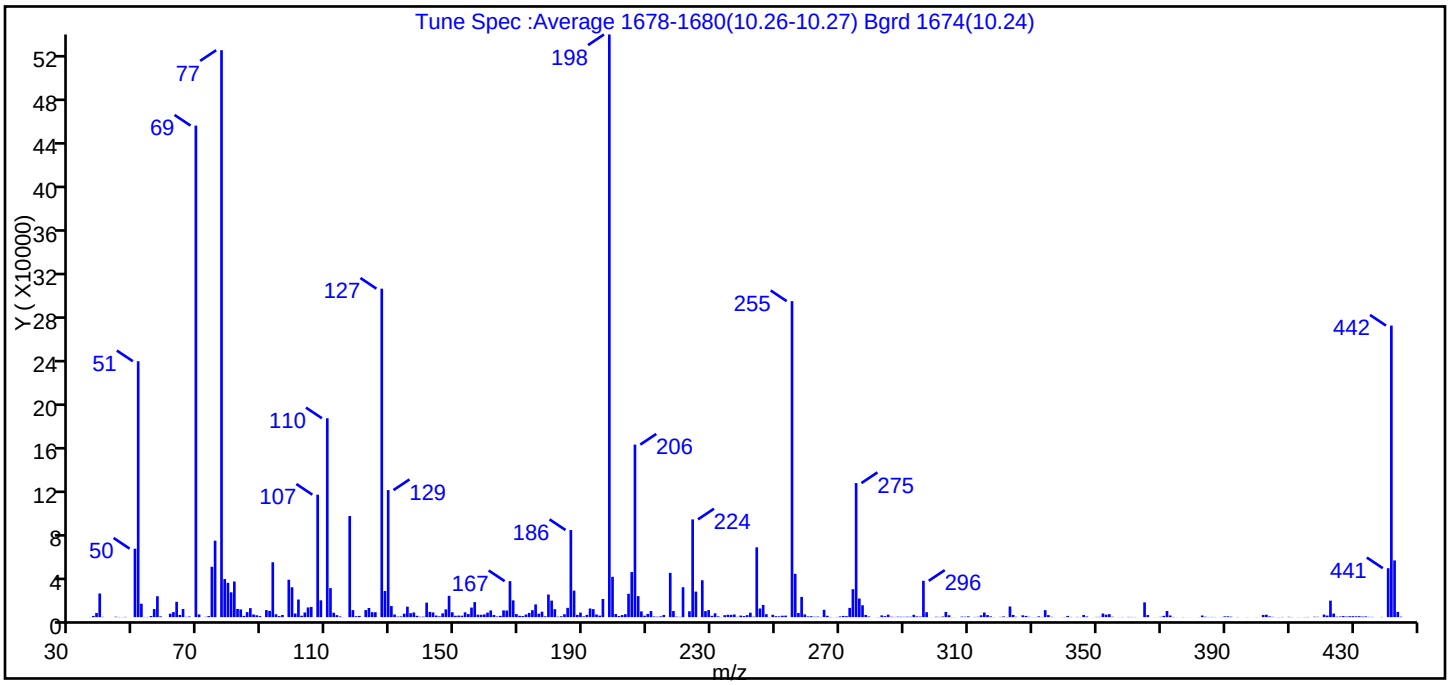
SMDFTPPW_00010 Amount Added: 1.00 Units: mL

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D
Injection Date: 22-Aug-2015 09:35:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL
Tune Method: DFTPP Method CLP OLM4.2

150 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100 percent relative abundance	100
51	30.0 - 80.0 percent of mass 198	43.9
68	Less than 2.0 percent of mass 69	0.0 (0.0)
69	Present	84.4
70	Less than 2.0 percent of mass 69	0.5 (0.5)
127	25.0 - 75.0 percent of mass 198	56.4
197	Less than 1.0 percent of mass 198	0.0
199	5.0 - 9.0 percent of mass 198	6.9
275	10.0 - 30.0 percent of mass 198	23.0
365	Greater than 0.75 percent of mass 198	2.5
441	Present but less than mass 443	8.4 (86.3)
442	40.0 - 110.0 percent of mass 198	50.0
443	15.0 - 24.0 percent of mass 442	9.7 (19.5)

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D\8270 _9.rslt\spectra.d
Injection Date: 22-Aug-2015 09:35:30
Spectrum: Tune Spec :Average 1678-1680(10.26-10.27) Bgrd 1674(10.24)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 360

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	96	143.00	4333	237.00	2477	333.00	189
37.00	1130	144.00	1485	238.00	311	334.00	6452
38.00	3847	145.00	744	239.00	1451	335.00	1881
39.00	21848	146.00	3500	240.00	996	336.00	320
40.00	283	147.00	7208	241.00	1841	337.00	54
44.00	407	148.00	19704	242.00	4123	339.00	54
45.00	185	149.00	4527	243.00	395	340.00	162
46.00	134	150.00	1276	244.00	64480	341.00	1123
47.00	258	151.00	1460	245.00	7989	342.00	200
50.00	63240	152.00	1335	246.00	11285	343.00	56
51.00	236352	153.00	4436	247.00	2697	344.00	240
52.00	12405	154.00	2855	248.00	116	345.00	85
53.00	149	155.00	8858	249.00	2169	346.00	2039
54.00	210	156.00	13889	250.00	895	347.00	615
55.00	1016	157.00	2263	251.00	735	349.00	51
56.00	7477	158.00	2198	252.00	1344	350.00	253
57.00	19304	159.00	2521	253.00	1406	351.00	261
58.00	687	160.00	4201	255.00	291840	352.00	3359
61.00	3197	161.00	6199	256.00	40024	353.00	2316
62.00	4680	162.00	1956	257.00	3812	354.00	2739
63.00	14163	163.00	624	258.00	18696	355.00	373
64.00	2037	164.00	1211	259.00	2499	357.00	89
65.00	7562	165.00	6228	260.00	699	358.00	164
66.00	275	166.00	6128	261.00	832	360.00	235
67.00	603	167.00	33264	262.00	374	361.00	189
69.00	453952	168.00	15499	263.00	483	362.00	174
70.00	2471	169.00	2830	264.00	223	365.00	13667
72.00	270	170.00	1261	265.00	6776	366.00	1940
73.00	972	171.00	1079	266.00	1231	368.00	80
74.00	46528	172.00	2417	267.00	198	369.00	64
75.00	70624	173.00	3937	268.00	69	370.00	326
77.00	523584	174.00	6440	269.00	166	371.00	1187
78.00	35176	175.00	11748	270.00	643	372.00	5685

Report Date: 24-Aug-2015 09:26:28 Chrom Revision: 2.2 23-Jul-2015 08:26:08
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D\8270 _9.rslt\spectra.d
Injection Date: 22-Aug-2015 09:35:30
Spectrum: Tune Spec :Average 1678-1680(10.26-10.27) Bgrd 1674(10.24)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 360

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	31680	176.00	3143	271.00	1139	373.00	1531
80.00	22944	177.00	5030	272.00	895	374.00	221
81.00	32896	178.00	770	273.00	8555	375.00	69
82.00	7579	179.00	20920	274.00	25816	377.00	135
83.00	7133	180.00	15263	275.00	123824	378.00	50
84.00	1168	181.00	7380	276.00	17192	379.00	57
85.00	4630	182.00	407	277.00	10980	382.00	87
86.00	8340	183.00	819	278.00	2062	383.00	1515
87.00	2463	184.00	2675	279.00	623	384.00	410
88.00	1721	185.00	8575	281.00	74	385.00	145
89.00	966	186.00	80456	282.00	138	386.00	215
91.00	6503	187.00	24512	283.00	1616	387.00	156
92.00	5776	188.00	2108	284.00	909	389.00	121
93.00	50696	189.00	4187	285.00	2340	390.00	709
94.00	2645	190.00	706	286.00	392	391.00	785
95.00	973	191.00	2136	287.00	227	392.00	434
96.00	2014	192.00	7974	288.00	429	394.00	162
98.00	34576	193.00	7379	289.00	373	397.00	119
99.00	27600	194.00	2455	290.00	304	400.00	114
100.00	3368	195.00	1410	291.00	419	402.00	2060
101.00	16277	196.00	16808	292.00	357	403.00	2252
102.00	1296	198.00	538112	293.00	2170	404.00	699
103.00	4305	199.00	37264	294.00	683	405.00	319
104.00	8950	200.00	2838	295.00	525	406.00	60
105.00	9412	201.00	1046	296.00	33568	407.00	128
107.00	113112	202.00	1944	297.00	4549	408.00	202
108.00	15536	203.00	2708	298.00	102	410.00	321
110.00	183680	204.00	21560	299.00	66	411.00	160
111.00	26800	205.00	41632	300.00	397	413.00	149
112.00	4085	206.00	159360	301.00	222	414.00	60
113.00	1866	207.00	19416	302.00	559	415.00	166
114.00	664	208.00	5300	303.00	4787	416.00	208
115.00	118	209.00	1298	304.00	1719	418.00	399
117.00	93384	210.00	3026	305.00	115	419.00	319

Report Date: 24-Aug-2015 09:26:28 Chrom Revision: 2.2 23-Jul-2015 08:26:08
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D\8270 _9.rslt\spectra.d
Injection Date: 22-Aug-2015 09:35:30
Spectrum: Tune Spec :Average 1678-1680(10.26-10.27) Bgrd 1674(10.24)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 360

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	6487	211.00	5603	306.00	94	420.00	85
119.00	846	212.00	593	308.00	494	421.00	2369
120.00	1132	213.00	411	309.00	392	422.00	1441
122.00	6516	214.00	720	310.00	739	423.00	15258
123.00	8464	215.00	2045	312.00	217	424.00	3280
124.00	4601	217.00	40912	313.00	338	425.00	421
125.00	4510	218.00	5642	314.00	1684	426.00	575
127.00	303360	219.00	442	315.00	4265	427.00	970
128.00	24152	220.00	272	316.00	1908	428.00	544
129.00	117344	221.00	27648	317.00	677	429.00	838
130.00	10245	223.00	5440	318.00	135	430.00	874
131.00	2418	224.00	90288	320.00	251	431.00	787
132.00	530	225.00	23584	321.00	655	432.00	862
133.00	689	227.00	34080	322.00	173	433.00	541
134.00	3197	228.00	5574	323.00	9848	434.00	685
135.00	9668	229.00	6505	324.00	2045	435.00	248
136.00	3657	230.00	1229	325.00	314	436.00	255
137.00	4350	231.00	3532	327.00	1692	439.00	196
138.00	1218	232.00	716	328.00	1147	441.00	45208
139.00	363	233.00	161	329.00	330	442.00	269248
140.00	454	234.00	1811	330.00	121	443.00	52408
141.00	13391	235.00	2220	331.00	140	444.00	4914
142.00	4871	236.00	2123	332.00	744	445.00	434

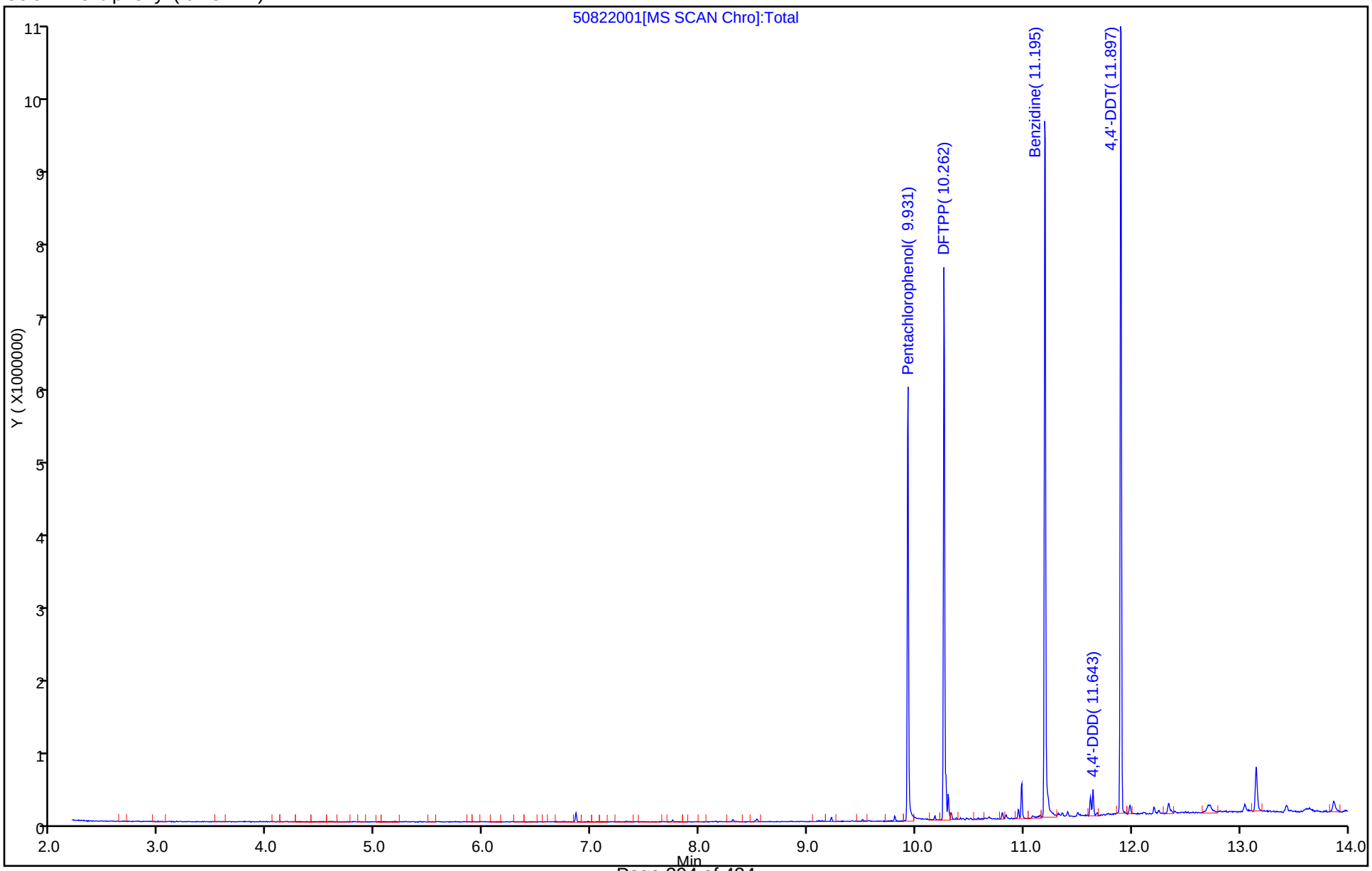
Report Date: 24-Aug-2015 09:26:28 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D

Injection Date:	22-Aug-2015 09:35:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	dftpp			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)

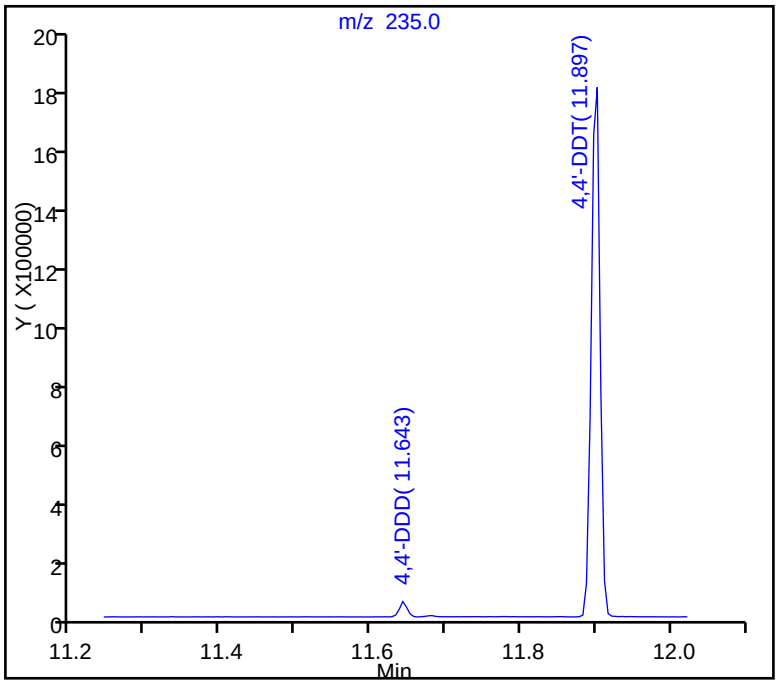


Breakdown Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D
Injection Date: 22-Aug-2015 09:35:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL

170 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

170 4,4'-DDT, Area = 1471250
165 4,4'-DDD, Area = 37953
166 4,4'-DDE, Area = 3719

%Breakdown: 2.75%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Canton

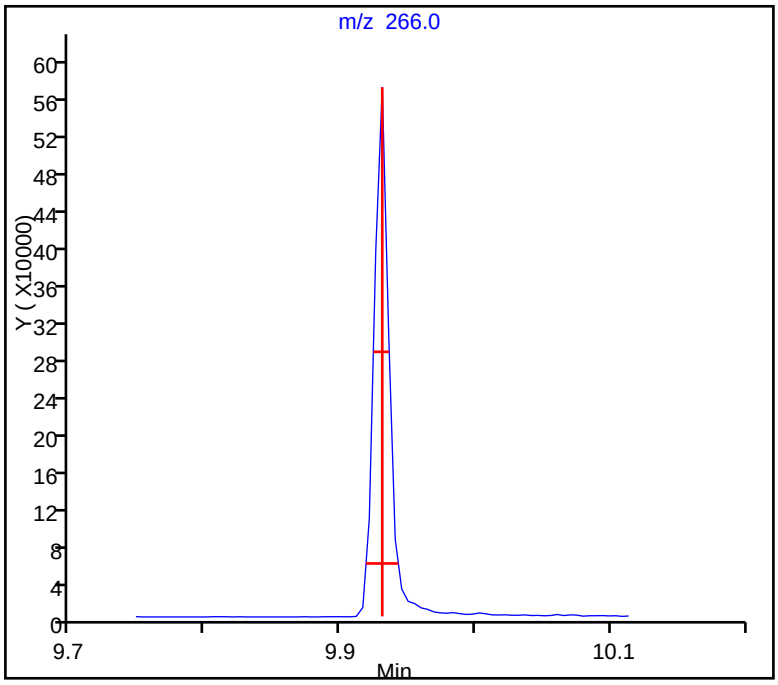
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D
Injection Date: 22-Aug-2015 09:35:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL

143 Pentachlorophenol, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.012 (min.)
Front Width = 0.012 (min.)

Tailing Factor = 1.0, Max. Tailing < 2.00
Passed



Peak Tailing Report

TestAmerica Canton

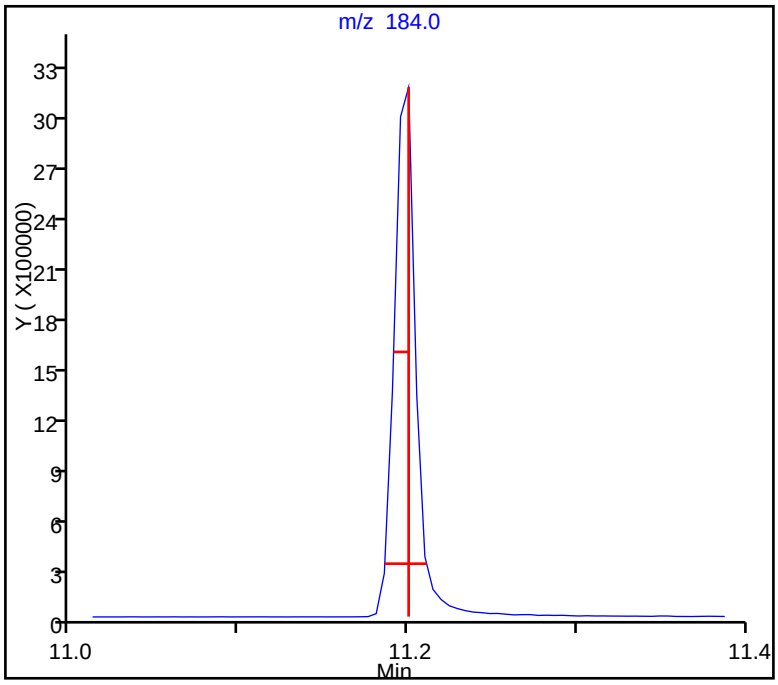
Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822001.D
Injection Date: 22-Aug-2015 09:35:30 Instrument ID: A4HP9
Lims ID: dftpp
Client ID:
Operator ID: 001710 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270 _9 Limit Group: MSS 8270D ICAL

160 Benzidine, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.014 (min.)

Tailing Factor = 0.8, Max. Tailing < 2.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194053/12-A

Matrix: Solid | Lab File ID: 50822003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30(g) | Date Analyzed: 08/22/2015 10:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		36-110
4165-62-2	Phenol-d5 (Surr)	77		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	69		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	24		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822003.D
Lims ID: MB 240-194053/12-A
Client ID:
Sample Type: MB
Inject. Date: 22-Aug-2015 10:50:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-003
Misc. Info.: MB 240-194053/12-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 22-Aug-2015 12:04:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.211	6.214	-0.003	94	115019	4.00	4.00	
* 2 Naphthalene-d8	136	7.332	7.330	0.002	98	436484	4.00	4.00	
* 3 Acenaphthene-d10	164	8.827	8.830	-0.003	91	251883	4.00	4.00	
* 4 Phenanthrene-d10	188	10.092	10.090	0.002	96	422637	4.00	4.00	
* 5 Chrysene-d12	240	12.342	12.345	-0.003	96	444063	4.00	4.00	
* 6 Perylene-d12	264	13.982	13.985	-0.003	97	388202	4.00	4.00	
$ 7 2-Fluorophenol	112	5.004	4.983	0.021	95	345920	10.0	6.87	
$ 8 Phenol-d5	99	5.889	5.882	0.007	97	550035	10.0	7.73	
$ 9 Nitrobenzene-d5	82	6.692	6.690	0.002	84	582294	10.0	6.89	
$ 10 2-Fluorobiphenyl (Surr)	172	8.231	8.234	-0.003	99	599783	10.0	7.29	
$ 11 2,4,6-Tribromophenol	330	9.496	9.499	-0.003	80	19548	10.0	2.39	
$ 12 Terphenyl-d14	244	11.409	11.408	0.001	99	757213	10.0	9.26	
25 1,4-Dioxane	88		2.425					ND	
26 N-Nitrosodimethylamine	74		3.026					ND	
27 Pyridine	79		3.098					ND	
20 Dimethylformamide	73		3.715					ND	
28 Ethyl methacrylate	69		3.854					ND	
31 2-Picoline	93		4.451					ND	
32 N-Nitrosomethylethylamine	88		4.566					ND	
233 n,n'-Dimethylacetamide	44		4.831					ND	
35 Acrylamide	71		4.840					ND	
34 Methyl methanesulfonate	80		4.884					ND	
36 N-Nitrosodiethylamine	102		5.302					ND	
37 Ethyl methanesulfonate	79		5.571					ND	
38 2-Methylcyclohexanone	68		5.687					ND	
39 3-Methylcyclohexanone	69		5.715					ND	
42 Phenylmercaptan	110		5.768					ND	
40 4-Methylcyclohexanone	55		5.768					ND	
41 Benzaldehyde	77		5.805					ND	
43 Phenol	94		5.892					ND	
44 Aniline	93		5.906					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
69 Bis(2-chloroethyl)ether	93		5.950					ND	
46 2-Chlorophenol	128		6.036					ND	
45 Pentachloroethane	167		6.057					ND	
243 n-Decane	57		6.060					ND	
47 1,3-Dichlorobenzene	146		6.166					ND	
48 1,4-Dichlorobenzene	146		6.229					ND	
232 1-Methyl-2-pyrrilidinone	99		6.297					ND	
49 Benzyl alcohol	108		6.320					ND	
50 1,2-Dichlorobenzene	146		6.368					ND	
51 2-Methylphenol	108		6.426					ND	
53 2,2'-oxybis[1-chloropropan	45		6.435					ND	
52 Indene	115		6.450					ND	
57 N-Nitrosodi-n-propylamine	70		6.546					ND	
58 Acetophenone	105		6.556					ND	
21 3 & 4 Methylphenol	108		6.556					ND	
286 4-Methyl-1-cyclohexanemeth	55		6.574					ND	
56 N-Nitrosopyrrolidine	100		6.615					ND	
59 N-Nitrosomorpholine	56		6.644					ND	
61 Hexachloroethane	117		6.676					ND	
60 2-Toluidine	106		6.682					ND	
287 4-Methyl-1-cyclohexanemeth	55		6.708					ND	
62 Nitrobenzene	77		6.709					ND	
64 Isophorone	82		6.911					ND	
63 N-Nitrosopiperidine	114		6.927					ND	
66 2-Nitrophenol	139		6.988					ND	
67 1,3,5-Trichlorobenzene	180		6.999					ND	
65 2,4-Dimethylphenol	107		7.012					ND	
71 Benzoic acid	122		7.075					ND	
70 Bis(2-chloroethoxy)methane	93		7.075					ND	
68 o,o',o''-Triethylphosphoro	198		7.139					ND	
73 2,4-Dichlorophenol	162		7.210					ND	
74 1,2,4-Trichlorobenzene	180		7.277					ND	
72 alpha,alpha-Dimethyl phene	58		7.278					ND	
75 Naphthalene	128		7.349					ND	
76 4-Chloroaniline	127		7.373					ND	
77 2,6-Dichlorophenol	162		7.392					ND	
79 Hexachlorobutadiene	225		7.455					ND	
80 1,2,3-Trichlorobenzene	180		7.466					ND	
78 Hexachloropropene	213		7.524					ND	
81 Benzothiazole	135		7.552					ND	
84 Caprolactam	113		7.657					ND	
82 Quinoline	129		7.721					ND	
83 N-Nitrosodi-n-butylamine	84		7.735					ND	
85 p-Phenylene diamine	108		7.759					ND	
86 4-Chloro-3-methylphenol	107		7.787					ND	
94 Safrole, Total	162		7.932					ND	
87 2-Methylnaphthalene	142		7.936					ND	
88 1-Methylnaphthalene	142		8.027					ND	
90 1,2,3,5-Tetrachlorobenzene	216		8.067					ND	
89 Hexachlorocyclopentadiene	237		8.080					ND	
91 1,2,4,5-Tetrachlorobenzene	216		8.085					ND	
92 2,4,6-Trichlorophenol	196		8.171					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
225 Isosafrole Peak 1	162		8.182					ND	
93 2,4,5-Trichlorophenol	196		8.219					ND	
97 2,4-Toluene diamine	121		8.288					ND	
99 1,2,3,4 -Tetrachlorobenzen	216		8.322					ND	
98 1,1'-Biphenyl	154		8.325					ND	
96 3,4-Dichloronitrobenzene	109		8.341					ND	
100 2-Chloronaphthalene	162		8.354					ND	
227 Isosafrole Peak 2	162		8.370					ND	
101 Phenyl ether	170		8.390					ND	
102 2-Nitroaniline	65		8.421					ND	
246 1-Chloronaphthalene	162		8.476					ND	
105 Dimethyl phthalate	163		8.551					ND	
103 1,4-Naphthoquinone	158		8.582					ND	
106 1,3-Dinitrobenzene	168		8.585					ND	
104 1,4-Dinitrobenzene	168		8.606					ND	
107 2,6-Dinitrotoluene	165		8.609					ND	
109 Acenaphthylene	152		8.715					ND	
110 3-Nitroaniline	138		8.763					ND	
111 2,4-Dinitrophenol	184		8.849					ND	
112 Acenaphthene	153		8.859					ND	
113 4-Nitrophenol	109		8.902					ND	
114 2,4-Dinitrotoluene	165		8.955					ND	
116 Dibenzofuran	168		9.003					ND	
115 Pentachlorobenzene	250		9.072					ND	
119 2,3,4,6-Tetrachlorophenol	232		9.104					ND	
121 Diethyl phthalate	149		9.143					ND	
247 Hexadecane	57		9.148					ND	
117 1-Naphthylamine	143		9.154					ND	
118 2,3,5,6-Tetrachlorophenol	232		9.163					ND	
120 2-Naphthylamine	143		9.221					ND	
123 4-Chlorophenyl phenyl ethe	204		9.268					ND	
125 4-Nitroaniline	138		9.282					ND	
126 Fluorene	166		9.292					ND	
127 Tributyl phosphate	99		9.293					ND	
122 Thionazin	97		9.308					ND	
128 4,6-Dinitro-2-methylphenol	198		9.311					ND	
131 N-Nitrosodiphenylamine	169		9.364					ND	
124 N-Nitro-o-toluidine	152		9.375					ND	
297 Benzophenone	105		9.395					ND	
132 1,2-Diphenylhydrazine	77		9.402					ND	
133 Azobenzene	77		9.402					ND	
130 Diphenylamine	169		9.457					ND	
134 Sulfotepp	202		9.558					ND	
135 1,3,5-Trinitrobenzene	213		9.640					ND	
139 4-Bromophenyl phenyl ether	248		9.686					ND	
137 Phenacetin	108		9.688					ND	
228 Diallate Peak 1	86		9.692					ND	
138 Phorate	121		9.702					ND	
230 Diallate Peak 2	86		9.774					ND	
141 Hexachlorobenzene	284		9.777					ND	
142 Atrazine	200		9.787					ND	
140 Dimethoate	87		9.841					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
244 n-Octadecane	57		9.922					ND	
143 Pentachlorophenol	266		9.931					ND	
129 4-Aminobiphenyl	169		10.000					ND	
144 Pronamide	173		10.024					ND	
145 Pentachloronitrobenzene	237		10.039					ND	
148 Phenanthrene	178		10.114					ND	
146 Disulfoton	88		10.140					ND	
147 Dinoseb	211		10.154					ND	
149 Anthracene	178		10.157					ND	
151 Carbazole	167		10.273					ND	
152 Methyl parathion	109		10.462					ND	
154 Di-n-butyl phthalate	149	10.510	10.513	-0.003	99	16073		0.1217	
153 Diphenylsulfone	125		10.534					ND	
155 Ethyl Parathion	97		10.784					ND	
156 4-Nitroquinoline-1-oxide	190		10.847					ND	
157 Methapyrilene	58		10.885					ND	
158 Isodrin	66		11.106					ND	
159 Fluoranthene	202		11.124					ND	
160 Benzidine	184		11.196					ND	
161 Pyrene	202		11.321					ND	
226 Aramite Peak 1	185		11.452					ND	
229 Aramite Peak 2	185		11.515					ND	
163 p-Dimethylamino azobenzene	225		11.626					ND	
164 Chlorobenzilate	139		11.650					ND	
282 Kepone	272		11.764					ND	
168 Butyl benzyl phthalate	149		11.788					ND	
167 Famphur	218		11.856					ND	
169 3,3'-Dimethylbenzidine	212		11.904					ND	
171 2-Acetylaminofluorene	181		12.126					ND	
172 3,3'-Dimethoxybenzidine	244		12.222					ND	
173 Bis(2-ethylhexyl) phthalat	149	12.251	12.249	0.002	91	9852		0.1214	
175 3,3'-Dichlorobenzidine	252		12.278					ND	
177 Benzo[a]anthracene	228		12.336					ND	
178 Chrysene	228		12.369					ND	
176 Hexabromobenzene	232		12.371					ND	
174 4,4'-Methylene bis(2-chlor	231		12.381					ND	
180 Di-n-octyl phthalate	149		12.860					ND	
179 6-Methylchrysene	242		12.943					ND	
182 Benzo[b]fluoranthene	252		13.475					ND	
183 Benzo[k]fluoranthene	252		13.509					ND	
181 7,12-Dimethylbenz(a)anthra	256		13.616					ND	
281 Hexachlorophene	196		13.628					ND	
184 Benzo[a]pyrene	252		13.908					ND	
185 3-Methylcholanthrene	268		14.612					ND	
186 Dibenz[a,j]acridine	279		15.357					ND	
187 Dibenz[a,h]acridine	279		15.554					ND	
188 Indeno[1,2,3-cd]pyrene	276		15.755					ND	
189 Dibenz(a,h)anthracene	278		15.760					ND	
190 Benzo[g,h,i]perylene	276		16.303					ND	
269 Dibenzo[a,e]pyrene	1		0.000					ND	
283 2-Ethoxyethanol	1		0.000					ND	
294 Dowanol Peak 3	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
261 Endosulfan II	1		0.000					ND	
279 3,4-Dichloroaniline	1		0.000					ND	
265 Dibenzo[a,h]pyrene	1		0.000					ND	
271 3 & 4 Phenoxyphenol	1		0.000					ND	
266 Heptachlor	1		0.000					ND	
254 2-Chloroaniline	1		0.000					ND	
290 1-Phenoxy-2-propanol TIC	1		0.000					ND	
259 o-Phenylphenol	1		0.000					ND	
263 Heptachlor epoxide	1		0.000					ND	
258 Aldrin	1		0.000					ND	
299 Diisobutyl phthalate TIC	1		0.000					ND	
276 Chlordane (technical)	1		0.000					ND	
250 gamma-BHC (Lindane)	1		0.000					ND	
285 Chlorobenzene TIC	1		0.000					ND	
292 Dowanol Peak 2	1		0.000					ND	
291 Dipropylene Glycol Phenyl	1		0.000					ND	
274 Dibenz(a,i)pyrene	1		0.000					ND	
277 Chlorpyrifos	1		0.000					ND	
252 4-tert-Butylphenol	1		0.000					ND	
260 Methoxychlor	1		0.000					ND	
268 Endrin	1		0.000					ND	
264 alpha-BHC	1		0.000					ND	
267 2,6-Diaminotoluene	1		0.000					ND	
293 Dowanol Peak 4	1		0.000					ND	
275 Dieldrin	1		0.000					ND	
278 delta-BHC	1		0.000					ND	
257 Endosulfan I	1		0.000					ND	
262 Isoquinoline	1		0.000					ND	
272 2,3-Dinitrotoluene	1		0.000					ND	
270 Toxaphene	1		0.000					ND	
289 1-Phenoxy-2-propanol	1		0.000					ND	
301 1-Dodecanol	1		0.000					ND	
253 Endrin aldehyde	1		0.000					ND	
251 Endosulfan sulfate	1		0.000					ND	
255 beta-BHC	1		0.000					ND	
273 3 & 4 Chlorophenol	1		0.000					ND	
S 95 Isosafrole	162		5.568					ND	
S 288 4-Methyl-1-cyclohexanemeth	55		6.400					ND	
S 136 Diallate	86		6.701					ND	
S 162 Aramite, Total	185		8.271					ND	
S 295 Dowanol	1		0.000					ND	
S 296 Dowanol Peak 1	1		0.000					ND	
S 191 Methyl Phenols,Total	100		0.000					ND	
S 245 Total Cresols	100		0.000					ND	
T 240 Trimethyl phosphate TIC	110		5.000					ND	
T 194 Decane TIC	142		5.800					ND	
T 193 Hexamethylphosphoramide TI	135		6.500					ND	
T 234 2-Isopropylphenol TIC	121		7.250					ND	
T 235 4-isopropylphenol TIC	121		7.364					ND	
T 236 3-isopropylphenol TIC	121		7.364					ND	
T 249 4-Chlorophenol TIC	128		7.500					ND	
T 300 Alpha-Terpineol TIC	59		7.500					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
T 237 3-(1,1-Dimethylethyl Pheno	135		7.720					ND	
T 195 Hydroquinone TIC	110		9.000					ND	
T 192 Octadecane (TIC)	254		9.600					ND	
T 231 2,3,7,8-TCDD	322		12.000					ND	
T 242 Triphenyl Phosphate TIC	326		12.000					ND	
T 196 Kepone TIC	272		12.000					ND	
T 241 Tricresyl phosphate TIC	368		12.500					ND	
T 280 2,3,7,8-TCDD TIC	198		12.500					ND	
T 248 2,3,7,8 TCDF TIC	304		13.000					ND	
T 197 Hexachlorophene TIC	198		13.600					ND	
T 239 Tris(2,3-dibromopropyl)pho	201		14.000					ND	

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

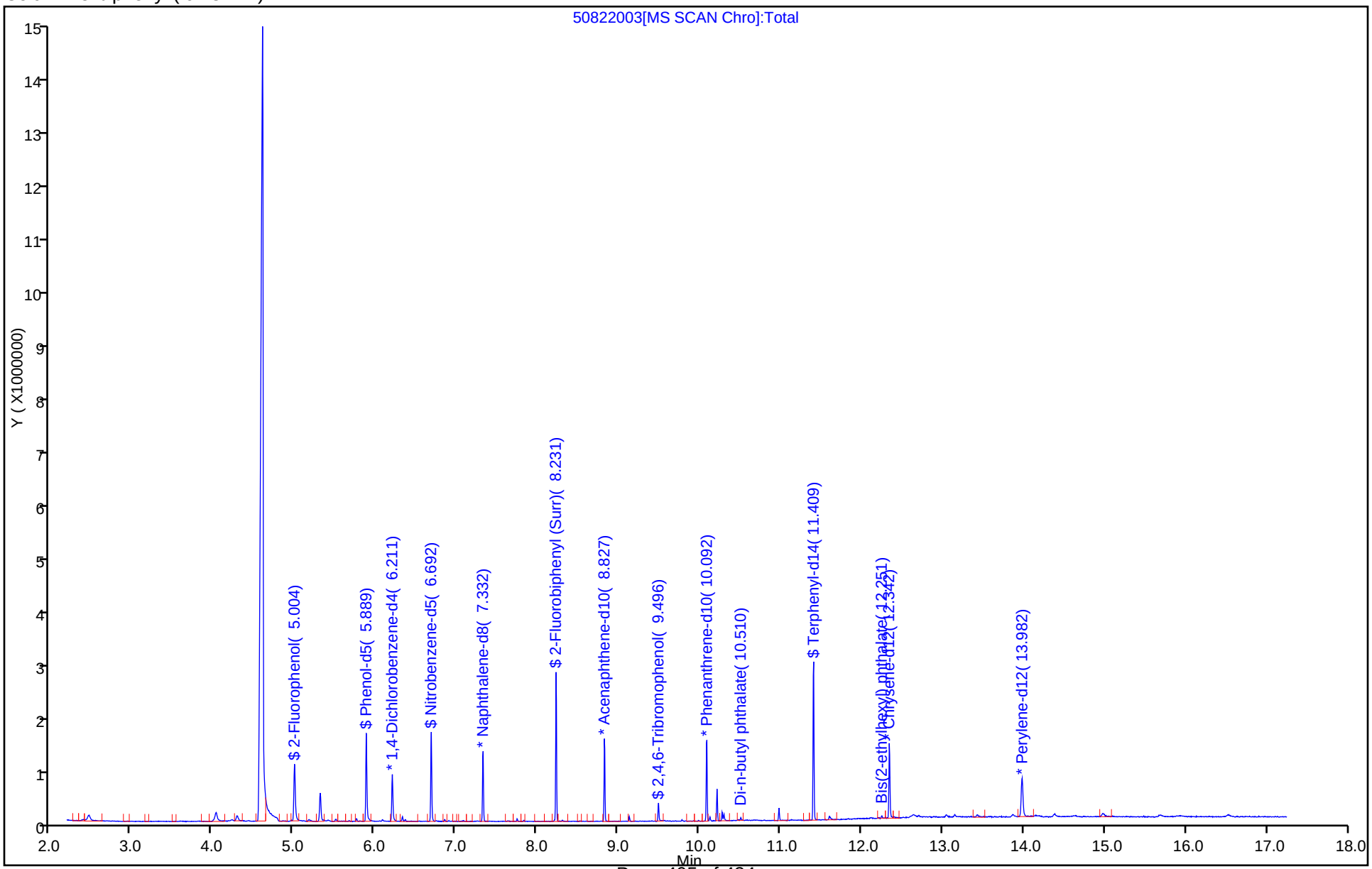
Report Date: 24-Aug-2015 09:26:37 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822003.D

Injection Date:	22-Aug-2015 10:50:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	MB 240-194053/12-A			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-194053/13-A

Matrix: Solid | Lab File ID: 50822004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30(g) | Date Analyzed: 08/22/2015 11:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	529		6.7	0.76
208-96-8	Acenaphthylene	542		6.7	0.35
120-12-7	Anthracene	539		6.7	0.78
56-55-3	Benzo[a]anthracene	595		6.7	0.63
50-32-8	Benzo[a]pyrene	613		6.7	0.64
205-99-2	Benzo[b]fluoranthene	596		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	710		6.7	0.35
207-08-9	Benzo[k]fluoranthene	640		6.7	0.68
218-01-9	Chrysene	619		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	699		6.7	0.66
206-44-0	Fluoranthene	575		6.7	0.55
86-73-7	Fluorene	539		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	682		6.7	0.35
91-20-3	Naphthalene	548		6.7	0.82
85-01-8	Phenanthrene	526		6.7	0.73
129-00-0	Pyrene	646		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	95		36-110
4165-62-2	Phenol-d5 (Surr)	80		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	82		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	77		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	42		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822004.D
Lims ID: LCS 240-194053/13-A
Client ID:
Sample Type: LCS
Inject. Date: 22-Aug-2015 11:15:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-004
Misc. Info.: LCS 240-194053/13-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 22-Aug-2015 12:06:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.213	6.214	-0.001	93	120628	4.00	4.00	
* 2 Naphthalene-d8	136	7.329	7.330	-0.001	98	455822	4.00	4.00	
* 3 Acenaphthene-d10	164	8.829	8.830	-0.001	92	262856	4.00	4.00	
* 4 Phenanthrene-d10	188	10.089	10.090	-0.001	96	446050	4.00	4.00	
* 5 Chrysene-d12	240	12.344	12.345	-0.001	96	460641	4.00	4.00	
* 6 Perylene-d12	264	13.979	13.985	-0.006	97	410624	4.00	4.00	
$ 7 2-Fluorophenol	112	5.006	4.983	0.023	95	416704	10.0	7.89	
$ 8 Phenol-d5	99	5.891	5.882	0.009	96	598183	10.0	8.01	
$ 9 Nitrobenzene-d5	82	6.694	6.690	0.004	84	719668	10.0	8.15	
$ 10 2-Fluorobiphenyl (Surr)	172	8.233	8.234	-0.001	98	658462	10.0	7.67	
$ 11 2,4,6-Tribromophenol	330	9.498	9.499	-0.001	79	35517	10.0	4.15	
$ 12 Terphenyl-d14	244	11.407	11.408	-0.001	98	803784	10.0	9.48	
25 1,4-Dioxane	88	2.419	2.425	-0.006	86	136161	10.0	4.58	M
26 N-Nitrosodimethylamine	74	3.020	3.026	-0.006	85	426578	10.0	8.35	M
27 Pyridine	79	3.102	3.098	0.004	89	526927	10.0	5.96	M
41 Benzaldehyde	77	5.804	5.805	-0.001	87	1143574	20.0	16.3	
43 Phenol	94	5.901	5.892	0.009	95	726003	10.0	8.67	
44 Aniline	93	5.905	5.906	-0.001	97	807141	10.0	7.47	
69 Bis(2-chloroethyl)ether	93	5.949	5.950	-0.001	97	668662	10.0	8.85	
46 2-Chlorophenol	128	6.040	6.036	0.004	89	381218	10.0	8.30	
243 n-Decane	57	6.059	6.060	-0.001	96	424032	10.0	7.03	
47 1,3-Dichlorobenzene	146	6.165	6.166	-0.001	87	388020	10.0	7.89	
48 1,4-Dichlorobenzene	146	6.228	6.229	-0.001	84	397948	10.0	7.92	
49 Benzyl alcohol	108	6.324	6.320	0.004	83	264142	10.0	7.11	
50 1,2-Dichlorobenzene	146	6.367	6.368	-0.001	85	369271	10.0	7.75	
51 2-Methylphenol	108	6.430	6.426	0.004	89	409410	10.0	7.96	
53 2,2'-oxybis[1-chloropropan	45	6.434	6.435	-0.001	98	422731	10.0	7.43	
52 Indene	115	6.449	6.450	-0.001	91	1402746	20.0	14.6	
57 N-Nitrosodi-n-propylamine	70	6.545	6.546	-0.001	98	499490	10.0	8.37	
58 Acetophenone	105	6.555	6.556	-0.001	83	677065	10.0	7.97	
21 3 & 4 Methylphenol	108	6.559	6.556	0.003	89	422228	10.0	7.78	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
61 Hexachloroethane	117	6.675	6.676	-0.001	90	183754	10.0	7.46	
62 Nitrobenzene	77	6.708	6.709	-0.001	78	774281	10.0	8.77	
64 Isophorone	82	6.910	6.911	-0.001	97	1238482	10.0	8.86	
66 2-Nitrophenol	139	6.992	6.988	0.004	80	177580	10.0	8.68	
65 2,4-Dimethylphenol	107	7.011	7.012	-0.001	95	437624	10.0	7.85	
71 Benzoic acid	122	7.093	7.075	0.018	83	46171	20.0	2.40	
70 Bis(2-chloroethoxy)methane	93	7.079	7.075	0.004	97	689155	10.0	8.95	
73 2,4-Dichlorophenol	162	7.209	7.210	-0.001	91	278912	10.0	7.99	
74 1,2,4-Trichlorobenzene	180	7.276	7.277	-0.001	88	325283	10.0	8.77	
75 Naphthalene	128	7.348	7.349	-0.001	98	1071347	10.0	8.22	
76 4-Chloroaniline	127	7.372	7.373	-0.001	89	426060	10.0	7.58	
77 2,6-Dichlorophenol	162	7.396	7.392	0.004	87	257385	10.0	7.61	
79 Hexachlorobutadiene	225	7.454	7.455	-0.001	94	189501	10.0	8.24	
84 Caprolactam	113	7.646	7.657	-0.011	86	293361	20.0	18.6	
86 4-Chloro-3-methylphenol	107	7.781	7.787	-0.006	86	388950	10.0	8.16	
87 2-Methylnaphthalene	142	7.935	7.936	-0.001	89	664967	10.0	8.33	
88 1-Methylnaphthalene	142	8.021	8.027	-0.006	90	584833	10.0	8.32	
89 Hexachlorocyclopentadiene	237	8.079	8.080	-0.001	94	114286	10.0	5.24	
91 1,2,4,5-Tetrachlorobenzene	216	8.084	8.085	-0.001	95	315006	10.0	8.42	
92 2,4,6-Trichlorophenol	196	8.170	8.171	-0.001	90	119234	10.0	4.84	
93 2,4,5-Trichlorophenol	196	8.218	8.219	-0.001	89	157681	10.0	6.08	
98 1,1'-Biphenyl	154	8.324	8.325	-0.001	97	794790	10.0	8.16	
100 2-Chloronaphthalene	162	8.353	8.354	-0.001	97	641861	10.0	8.34	
102 2-Nitroaniline	65	8.420	8.421	-0.001	69	364695	10.0	9.08	
105 Dimethyl phthalate	163	8.550	8.551	-0.001	91	731852	10.0	8.79	
106 1,3-Dinitrobenzene	168	8.584	8.585	-0.001	76	120824	10.0	9.32	
107 2,6-Dinitrotoluene	165	8.608	8.609	-0.001	75	171543	10.0	9.31	
109 Acenaphthylene	152	8.714	8.715	-0.001	98	998715	10.0	8.13	
110 3-Nitroaniline	138	8.762	8.763	-0.001	84	186748	10.0	9.30	
111 2,4-Dinitrophenol	184	8.848	8.849	-0.001	92	66729	20.0	7.58	
112 Acenaphthene	153	8.858	8.859	-0.001	95	626386	10.0	7.94	
113 4-Nitrophenol	109	8.901	8.902	-0.001	83	255617	20.0	15.3	
114 2,4-Dinitrotoluene	165	8.954	8.955	-0.001	79	225087	10.0	9.16	
116 Dibenzofuran	168	9.002	9.003	-0.001	96	886477	10.0	8.18	
119 2,3,4,6-Tetrachlorophenol	232	9.103	9.104	-0.001	78	115150	10.0	5.57	
121 Diethyl phthalate	149	9.142	9.143	-0.001	94	695168	10.0	8.50	
247 Hexadecane	57	9.147	9.148	-0.001	97	564119	10.0	8.45	
123 4-Chlorophenyl phenyl ethe	204	9.267	9.268	-0.001	89	344906	10.0	8.55	
125 4-Nitroaniline	138	9.281	9.282	-0.001	76	185989	10.0	9.54	
126 Fluorene	166	9.291	9.292	-0.001	99	732393	10.0	8.08	
128 4,6-Dinitro-2-methylphenol	198	9.310	9.311	-0.001	95	184485	20.0	13.7	
131 N-Nitrosodiphenylamine	169	9.363	9.364	-0.001	98	1019409	20.0	16.1	
132 1,2-Diphenylhydrazine	77	9.401	9.402	-0.001	99	1484821	10.0	8.43	
133 Azobenzene	77	9.401	9.402	-0.001	92	1485134	10.0	8.43	
139 4-Bromophenyl phenyl ether	248	9.685	9.686	-0.001	74	193019	10.0	8.10	
141 Hexachlorobenzene	284	9.777	9.777	-0.001	90	195699	10.0	8.30	
142 Atrazine	200	9.786	9.787	-0.001	88	434155	20.0	18.3	
244 n-Octadecane	57	9.921	9.922	-0.001	84	590379	10.0	8.25	
143 Pentachlorophenol	266	9.930	9.931	-0.001	87	165118	20.0	10.3	
148 Phenanthrene	178	10.113	10.114	-0.001	99	1116363	10.0	7.89	
149 Anthracene	178	10.156	10.157	-0.001	99	1136858	10.0	8.08	
151 Carbazole	167	10.272	10.273	-0.001	96	1059580	10.0	9.05	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
154 Di-n-butyl phthalate	149	10.512	10.513	-0.001	99	1312930	10.0	9.42	
159 Fluoranthene	202	11.123	11.124	-0.001	100	1230627	10.0	8.62	
160 Benzidine	184	11.195	11.196	-0.001	99	1025403	20.0	14.7	
161 Pyrene	202	11.320	11.321	-0.001	96	1286984	10.0	9.70	
168 Butyl benzyl phthalate	149	11.787	11.788	-0.001	87	584269	10.0	9.43	
173 Bis(2-ethylhexyl) phthalat	149	12.248	12.249	-0.001	93	817016	10.0	9.70	
175 3,3'-Dichlorobenzidine	252	12.277	12.278	-0.001	77	712749	20.0	17.2	
177 Benzo[a]anthracene	228	12.335	12.336	-0.001	99	1268718	10.0	8.93	
178 Chrysene	228	12.368	12.369	-0.001	97	1237301	10.0	9.28	
180 Di-n-octyl phthalate	149	12.859	12.860	-0.001	99	1360681	10.0	9.34	
182 Benzo[b]fluoranthene	252	13.474	13.475	-0.001	97	1087026	10.0	8.93	
183 Benzo[k]fluoranthene	252	13.503	13.509	-0.006	98	1181463	10.0	9.60	
184 Benzo[a]pyrene	252	13.907	13.908	-0.001	79	1065297	10.0	9.20	
188 Indeno[1,2,3-cd]pyrene	276	15.754	15.755	-0.001	96	1230413	10.0	10.2	
189 Dibenz(a,h)anthracene	278	15.754	15.760	-0.006	88	988707	10.0	10.5	
190 Benzo[g,h,i]perylene	276	16.297	16.303	-0.006	97	1065318	10.0	10.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

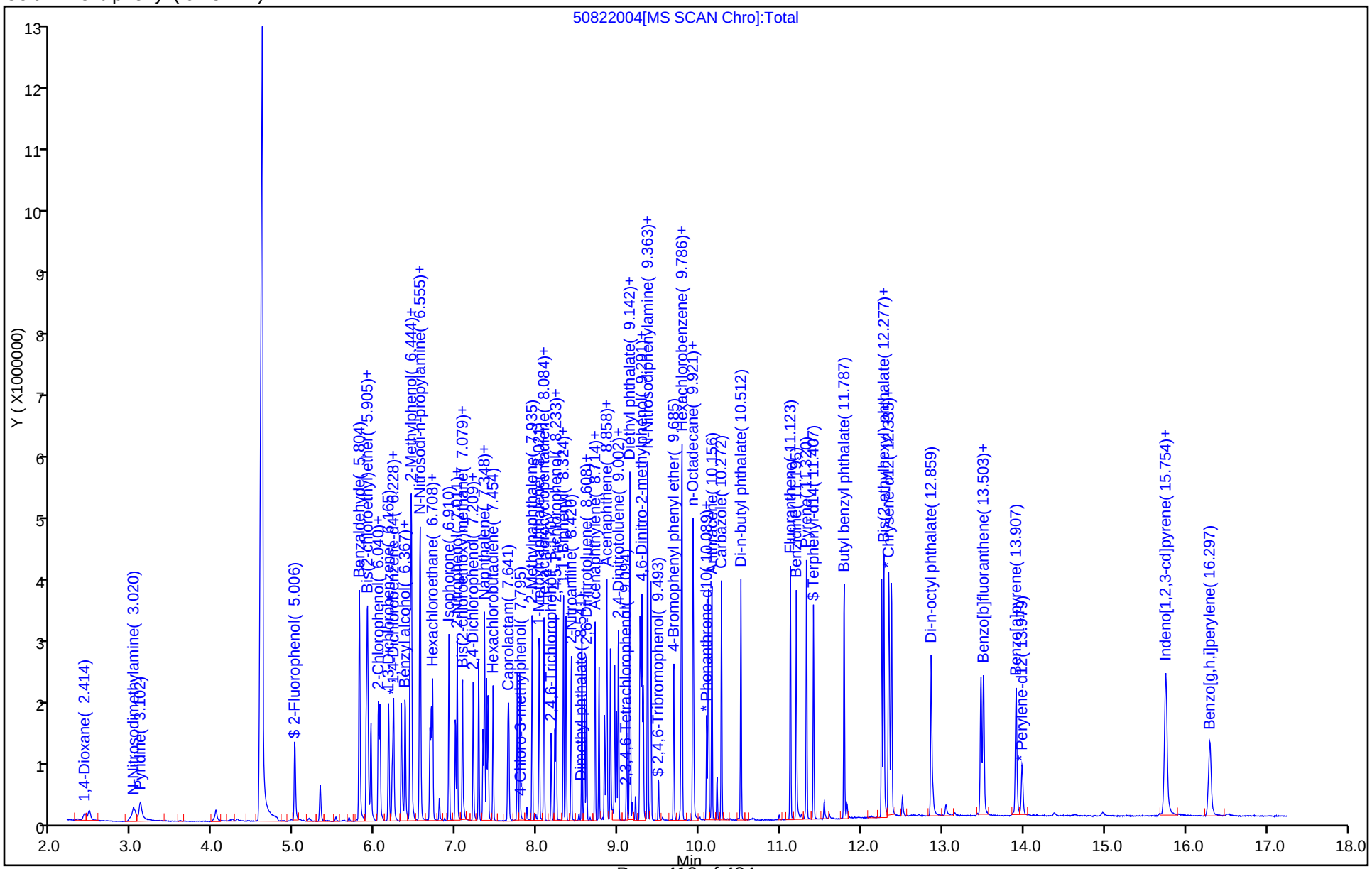
Report Date: 24-Aug-2015 09:26:39 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822004.D

Injection Date:	22-Aug-2015 11:15:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	LCS 240-194053/13-A			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-54203-C-19-H MS

Matrix: Solid | Lab File ID: 50822026.D

Analysis Method: 8270D | Date Collected: 08/10/2015 13:50

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.22(g) | Date Analyzed: 08/22/2015 20:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	533		8.1	0.93
208-96-8	Acenaphthylene	579		8.1	0.43
120-12-7	Anthracene	658		8.1	0.95
56-55-3	Benzo[a]anthracene	855		8.1	0.77
50-32-8	Benzo[a]pyrene	869		8.1	0.78
205-99-2	Benzo[b]fluoranthene	946		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	799		8.1	0.43
207-08-9	Benzo[k]fluoranthene	760		8.1	0.83
218-01-9	Chrysene	882		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	719		8.1	0.81
206-44-0	Fluoranthene	1010		8.1	0.67
86-73-7	Fluorene	589		8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	810		8.1	0.43
91-20-3	Naphthalene	459		8.1	1.0
85-01-8	Phenanthrene	744		8.1	0.89
129-00-0	Pyrene	990		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	57		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822026.D
Lims ID: 240-54203-C-19-H MS
Client ID:
Sample Type: MS
Inject. Date: 22-Aug-2015 20:19:30 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-026
Misc. Info.: 240-54203-C-19-H MS
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 09:17:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.210	6.214	-0.004	92	147946	4.00	4.00	
* 2 Naphthalene-d8	136	7.331	7.330	0.001	98	573602	4.00	4.00	
* 3 Acenaphthene-d10	164	8.831	8.830	0.001	91	334159	4.00	4.00	
* 4 Phenanthrene-d10	188	10.091	10.090	0.001	96	577188	4.00	4.00	
* 5 Chrysene-d12	240	12.346	12.345	0.001	97	647367	4.00	4.00	
* 6 Perylene-d12	264	13.986	13.985	0.001	98	632913	4.00	4.00	
$ 7 2-Fluorophenol	112	5.008	4.983	0.025	95	347213	10.0	5.36	
$ 8 Phenol-d5	99	5.893	5.882	0.011	97	519745	10.0	5.68	
$ 9 Nitrobenzene-d5	82	6.691	6.690	0.001	84	588731	10.0	5.30	
$ 10 2-Fluorobiphenyl (Surr)	172	8.235	8.234	0.001	99	622134	10.0	5.70	
$ 11 2,4,6-Tribromophenol	330	9.495	9.499	-0.004	78	44271	10.0	4.07	
$ 12 Terphenyl-d14	244	11.409	11.408	0.001	99	1001556	10.0	8.41	
41 Benzaldehyde	77	5.806	5.805	0.001	87	936708	20.0	10.9	
43 Phenol	94	5.903	5.892	0.011	93	627299	10.0	6.11	
69 Bis(2-chloroethyl)ether	93	5.946	5.950	-0.004	97	553713	10.0	5.97	
46 2-Chlorophenol	128	6.037	6.036	0.001	87	313900	10.0	5.57	
51 2-Methylphenol	108	6.427	6.426	0.001	90	355616	10.0	5.63	
53 2,2'-oxybis[1-chloropropan	45	6.436	6.435	0.001	98	357545	10.0	5.13	
57 N-Nitrosodi-n-propylamine	70	6.547	6.546	0.001	98	431414	10.0	5.89	
58 Acetophenone	105	6.552	6.556	-0.004	87	575104	10.0	5.52	
21 3 & 4 Methylphenol	108	6.557	6.556	0.001	91	394475	10.0	5.93	
61 Hexachloroethane	117	6.677	6.676	0.001	88	134850	10.0	4.46	
62 Nitrobenzene	77	6.706	6.709	-0.003	78	643774	10.0	5.79	
64 Isophorone	82	6.908	6.911	-0.003	97	1076913	10.0	6.13	
66 2-Nitrophenol	139	6.989	6.988	0.001	82	136894	10.0	5.32	
65 2,4-Dimethylphenol	107	7.014	7.012	0.002	95	404564	10.0	5.77	
70 Bis(2-chloroethoxy)methane	93	7.076	7.075	0.001	97	587571	10.0	6.06	
73 2,4-Dichlorophenol	162	7.211	7.210	0.001	92	263703	10.0	6.01	
75 Naphthalene	128	7.350	7.349	0.001	98	925193	10.0	5.64	
76 4-Chloroaniline	127	7.374	7.373	0.001	89	379429	10.0	5.36	
79 Hexachlorobutadiene	225	7.456	7.455	0.001	94	157072	10.0	5.43	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
84 Caprolactam	113	7.648	7.657	-0.009	85	339958	20.0	17.1	
86 4-Chloro-3-methylphenol	107	7.783	7.787	-0.004	86	437425	10.0	7.29	
87 2-Methylnaphthalene	142	7.937	7.936	0.001	90	608776	10.0	6.06	
89 Hexachlorocyclopentadiene	237		8.080				ND	ND	
91 1,2,4,5-Tetrachlorobenzene	216	8.086	8.085	0.001	95	290703	10.0	6.12	
92 2,4,6-Trichlorophenol	196	8.172	8.171	0.001	91	131541	10.0	4.20	
93 2,4,5-Trichlorophenol	196	8.216	8.219	-0.003	87	159724	10.0	4.85	
98 1,1'-Biphenyl	154	8.322	8.325	-0.003	96	749414	10.0	6.05	
100 2-Chloronaphthalene	162	8.355	8.354	0.001	97	587113	10.0	6.00	
102 2-Nitroaniline	65	8.418	8.421	-0.003	70	393709	10.0	7.71	
105 Dimethyl phthalate	163	8.552	8.551	0.001	92	790431	10.0	7.47	
107 2,6-Dinitrotoluene	165	8.610	8.609	0.001	77	185891	10.0	7.93	
109 Acenaphthylene	152	8.711	8.715	-0.004	98	1110341	10.0	7.11	
110 3-Nitroaniline	138	8.764	8.763	0.001	84	217946	10.0	8.54	
111 2,4-Dinitrophenol	184	8.846	8.849	-0.003	88	23369	20.0	2.76	
112 Acenaphthene	153	8.855	8.859	-0.004	96	656956	10.0	6.55	
113 4-Nitrophenol	109	8.903	8.902	0.001	84	322358	20.0	15.1	
114 2,4-Dinitrotoluene	165	8.956	8.955	0.001	79	250764	10.0	8.03	
116 Dibenzofuran	168	9.000	9.003	-0.003	96	965343	10.0	7.01	
119 2,3,4,6-Tetrachlorophenol	232	9.105	9.104	0.001	80	114235	10.0	4.34	
121 Diethyl phthalate	149	9.139	9.143	-0.004	95	822054	10.0	7.91	
123 4-Chlorophenyl phenyl ethe	204	9.269	9.268	0.001	90	378485	10.0	7.38	
125 4-Nitroaniline	138	9.278	9.282	-0.004	76	218372	10.0	8.81	
126 Fluorene	166	9.293	9.292	0.001	99	833598	10.0	7.24	
128 4,6-Dinitro-2-methylphenol	198	9.307	9.311	-0.004	94	66619	20.0	4.34	
131 N-Nitrosodiphenylamine	169	9.360	9.364	-0.004	97	1168169	20.0	14.2	
139 4-Bromophenyl phenyl ether	248	9.682	9.686	-0.004	74	234381	10.0	7.60	
141 Hexachlorobenzene	284	9.774	9.777	-0.003	91	227889	10.0	7.47	
142 Atrazine	200	9.783	9.787	-0.004	88	501435	20.0	16.3	
143 Pentachlorophenol	266	9.932	9.931	0.001	88	138322	20.0	6.64	
148 Phenanthrene	178	10.110	10.114	-0.004	99	1673414	10.0	9.14	
149 Anthracene	178	10.154	10.157	-0.003	99	1471596	10.0	8.09	
151 Carbazole	167	10.274	10.273	0.001	97	1298590	10.0	8.57	
154 Di-n-butyl phthalate	149	10.514	10.513	0.001	99	1577628	10.0	8.75	
159 Fluoranthene	202	11.125	11.124	0.001	100	2290754	10.0	12.4	
161 Pyrene	202	11.322	11.321	0.001	96	2268752	10.0	12.2	
168 Butyl benzyl phthalate	149	11.784	11.788	-0.004	88	732399	10.0	8.41	
173 Bis(2-ethylhexyl) phthalat	149	12.250	12.249	0.001	94	1056715	10.0	8.93	
175 3,3'-Dichlorobenzidine	252	12.279	12.278	0.001	76	807758	20.0	13.9	
177 Benzo[a]anthracene	228	12.337	12.336	0.001	98	2099004	10.0	10.5	
178 Chrysene	228	12.371	12.369	0.001	97	2031399	10.0	10.8	
180 Di-n-octyl phthalate	149	12.861	12.860	0.001	99	1833405	10.0	8.16	
182 Benzo[b]fluoranthene	252	13.477	13.475	0.002	97	2180566	10.0	11.6	
183 Benzo[k]fluoranthene	252	13.510	13.509	0.001	98	1771471	10.0	9.34	
184 Benzo[a]pyrene	252	13.914	13.908	0.006	78	1905343	10.0	10.7	
188 Indeno[1,2,3-cd]pyrene	276	15.761	15.755	0.006	99	1847313	10.0	9.96	
189 Dibenz(a,h)anthracene	278	15.761	15.760	0.001	89	1285799	10.0	8.84	
190 Benzo[g,h,i]perylene	276	16.309	16.303	0.006	97	1513037	10.0	9.82	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

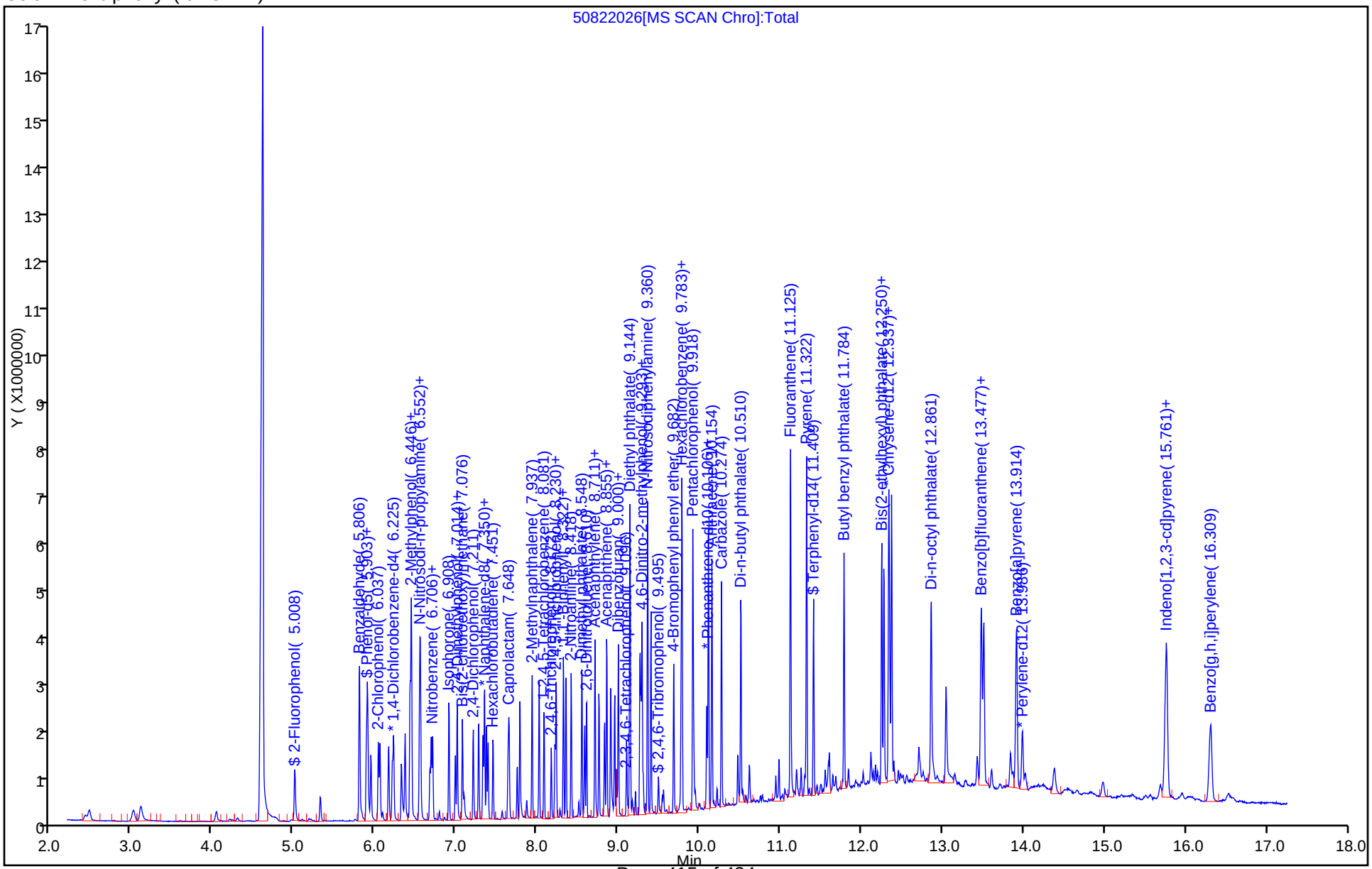
Report Date: 24-Aug-2015 09:27:15 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822026.D

Injection Date:	22-Aug-2015 20:19:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54203-C-19-H MS			Worklist Smp#:	26
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-54203-C-19-I MSD

Matrix: Solid | Lab File ID: 50822027.D

Analysis Method: 8270D | Date Collected: 08/10/2015 13:50

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.09(g) | Date Analyzed: 08/22/2015 20:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	585		8.2	0.93
208-96-8	Acenaphthylene	793		8.2	0.43
120-12-7	Anthracene	795		8.2	0.96
56-55-3	Benzo[a]anthracene	1540		8.2	0.77
50-32-8	Benzo[a]pyrene	1550		8.2	0.78
205-99-2	Benzo[b]fluoranthene	1810		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	1230		8.2	0.43
207-08-9	Benzo[k]fluoranthene	1160		8.2	0.83
218-01-9	Chrysene	1550		8.2	1.3
53-70-3	Dibenz(a,h)anthracene	841		8.2	0.81
206-44-0	Fluoranthene	1960		8.2	0.67
86-73-7	Fluorene	650		8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	1190		8.2	0.43
91-20-3	Naphthalene	502		8.2	1.0
85-01-8	Phenanthrene	1110		8.2	0.89
129-00-0	Pyrene	1950		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	47		10-110

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822027.D
Lims ID: 240-54203-C-19-I MSD
Client ID:
Sample Type: MSD
Inject. Date: 22-Aug-2015 20:44:30 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0046571-027
Misc. Info.: 240-54203-C-19-I MSD
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 24-Aug-2015 09:26:30 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: ulmanm Date: 24-Aug-2015 09:19:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.214	6.214	0.000	93	138296	4.00	4.00	
* 2 Naphthalene-d8	136	7.329	7.330	-0.001	98	553272	4.00	4.00	
* 3 Acenaphthene-d10	164	8.830	8.830	0.000	92	320380	4.00	4.00	
* 4 Phenanthrene-d10	188	10.089	10.090	-0.001	96	547463	4.00	4.00	
* 5 Chrysene-d12	240	12.350	12.345	0.005	96	588420	4.00	4.00	
* 6 Perylene-d12	264	13.989	13.985	0.004	98	621592	4.00	4.00	
$ 7 2-Fluorophenol	112	5.011	4.983	0.028	94	346212	10.0	5.72	
$ 8 Phenol-d5	99	5.891	5.882	0.009	96	556115	10.0	6.50	
$ 9 Nitrobenzene-d5	82	6.690	6.690	0.000	84	609936	10.0	5.69	
$ 10 2-Fluorobiphenyl (Surr)	172	8.233	8.234	-0.001	98	651084	10.0	6.22	
$ 11 2,4,6-Tribromophenol	330	9.498	9.499	-0.001	79	48684	10.0	4.67	
$ 12 Terphenyl-d14	244	11.412	11.408	0.004	99	899475	10.0	8.31	
41 Benzaldehyde	77	5.805	5.805	0.000	87	963117	20.0	12.0	
43 Phenol	94	5.906	5.892	0.014	91	675716	10.0	7.04	
69 Bis(2-chloroethyl)ether	93	5.949	5.950	-0.001	97	551630	10.0	6.37	
46 2-Chlorophenol	128	6.040	6.036	0.004	89	339333	10.0	6.45	
51 2-Methylphenol	108	6.430	6.426	0.004	90	393389	10.0	6.67	
53 2,2'-oxybis[1-chloropropan	45	6.435	6.435	0.000	99	347184	10.0	5.33	
57 N-Nitrosodi-n-propylamine	70	6.545	6.546	-0.001	97	454792	10.0	6.64	
58 Acetophenone	105	6.555	6.556	-0.001	85	585844	10.0	6.02	
21 3 & 4 Methylphenol	108	6.560	6.556	0.004	90	412115	10.0	6.63	
61 Hexachloroethane	117	6.675	6.676	-0.001	88	128326	10.0	4.55	
62 Nitrobenzene	77	6.709	6.709	0.000	78	656630	10.0	6.13	
64 Isophorone	82	6.911	6.911	0.000	97	1116408	10.0	6.58	
66 2-Nitrophenol	139	6.988	6.988	0.000	81	144843	10.0	5.83	
65 2,4-Dimethylphenol	107	7.012	7.012	0.000	95	441003	10.0	6.52	
70 Bis(2-chloroethoxy)methane	93	7.074	7.075	-0.001	97	629286	10.0	6.73	
73 2,4-Dichlorophenol	162	7.209	7.210	-0.001	92	304657	10.0	7.19	
75 Naphthalene	128	7.348	7.349	-0.001	98	971121	10.0	6.14	
76 4-Chloroaniline	127	7.373	7.373	-0.001	90	401685	10.0	5.89	
79 Hexachlorobutadiene	225	7.454	7.455	-0.001	94	161758	10.0	5.80	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
84 Caprolactam	113	7.656	7.657	-0.001	86	340492	20.0	17.8	
86 4-Chloro-3-methylphenol	107	7.786	7.787	-0.001	86	445999	10.0	7.71	
87 2-Methylnaphthalene	142	7.935	7.936	-0.001	89	669922	10.0	6.91	
89 Hexachlorocyclopentadiene	237		8.080				ND	ND	
91 1,2,4,5-Tetrachlorobenzene	216	8.084	8.085	-0.001	95	312407	10.0	6.85	
92 2,4,6-Trichlorophenol	196	8.171	8.171	0.000	91	168818	10.0	5.63	
93 2,4,5-Trichlorophenol	196	8.219	8.219	0.000	89	194679	10.0	6.16	
98 1,1'-Biphenyl	154	8.325	8.325	0.000	97	803086	10.0	6.76	
100 2-Chloronaphthalene	162	8.353	8.354	-0.001	97	632479	10.0	6.75	
102 2-Nitroaniline	65	8.421	8.421	0.000	70	393626	10.0	8.05	
105 Dimethyl phthalate	163	8.551	8.551	0.000	96	788405	10.0	7.77	
107 2,6-Dinitrotoluene	165	8.608	8.609	-0.001	77	181723	10.0	8.09	
109 Acenaphthylene	152	8.714	8.715	-0.001	98	1453326	10.0	9.71	
110 3-Nitroaniline	138	8.762	8.763	-0.001	84	212247	10.0	8.67	
111 2,4-Dinitrophenol	184	8.849	8.849	0.000	89	30043	20.0	3.38	
112 Acenaphthene	153	8.858	8.859	-0.001	97	687967	10.0	7.15	
113 4-Nitrophenol	109	8.907	8.902	0.004	84	328998	20.0	16.1	
114 2,4-Dinitrotoluene	165	8.955	8.955	0.000	80	242647	10.0	8.10	
116 Dibenzofuran	168	9.003	9.003	0.000	96	993627	10.0	7.53	
119 2,3,4,6-Tetrachlorophenol	232	9.104	9.104	0.000	79	109684	10.0	4.35	
121 Diethyl phthalate	149	9.137	9.143	-0.006	95	785084	10.0	7.88	
123 4-Chlorophenyl phenyl ethe	204	9.267	9.268	-0.001	90	366325	10.0	7.45	
125 4-Nitroaniline	138	9.282	9.282	0.000	76	201490	10.0	8.48	
126 Fluorene	166	9.291	9.292	-0.001	99	878788	10.0	7.96	
128 4,6-Dinitro-2-methylphenol	198	9.306	9.311	-0.005	93	65640	20.0	4.48	
131 N-Nitrosodiphenylamine	169	9.363	9.364	-0.001	97	1142816	20.0	14.7	
139 4-Bromophenyl phenyl ether	248	9.686	9.686	0.000	75	229853	10.0	7.86	
141 Hexachlorobenzene	284	9.777	9.777	0.000	89	215035	10.0	7.43	
142 Atrazine	200	9.787	9.787	0.000	89	459547	20.0	15.7	
143 Pentachlorophenol	266	9.931	9.931	0.000	88	120904	20.0	6.12	
148 Phenanthrene	178	10.114	10.114	0.000	99	2365921	10.0	13.6	
149 Anthracene	178	10.157	10.157	0.000	99	1678491	10.0	9.72	
151 Carbazole	167	10.272	10.273	-0.001	97	1288513	10.0	8.97	
154 Di-n-butyl phthalate	149	10.513	10.513	0.000	99	1454556	10.0	8.50	
159 Fluoranthene	202	11.128	11.124	0.004	99	4209760	10.0	24.0	
161 Pyrene	202	11.325	11.321	0.004	96	4045037	10.0	23.9	
168 Butyl benzyl phthalate	149	11.787	11.788	-0.001	89	677144	10.0	8.56	
173 Bis(2-ethylhexyl) phthalat	149	12.249	12.249	0.000	94	979601	10.0	9.11	
175 3,3'-Dichlorobenzidine	252	12.277	12.278	-0.001	77	630619	20.0	11.9	
177 Benzo[a]anthracene	228	12.340	12.336	0.004	97	3412216	10.0	18.8	
178 Chrysene	228	12.374	12.369	0.005	97	3228254	10.0	19.0	
180 Di-n-octyl phthalate	149	12.864	12.860	0.004	99	1726877	10.0	7.83	
182 Benzo[b]fluoranthene	252	13.484	13.475	0.009	96	4090105	10.0	22.2	
183 Benzo[k]fluoranthene	252	13.513	13.509	0.004	98	2637443	10.0	14.2	
184 Benzo[a]pyrene	252	13.922	13.908	0.014	78	3322615	10.0	19.0	
188 Indeno[1,2,3-cd]pyrene	276	15.769	15.755	0.014	98	2650378	10.0	14.5	
189 Dibenz(a,h)anthracene	278	15.773	15.760	0.013	87	1470614	10.0	10.3	
190 Benzo[g,h,i]perylene	276	16.322	16.303	0.019	98	2271329	10.0	15.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

SMIS80PPMW_00011 Amount Added: 5.00 Units: uL Run Reagent

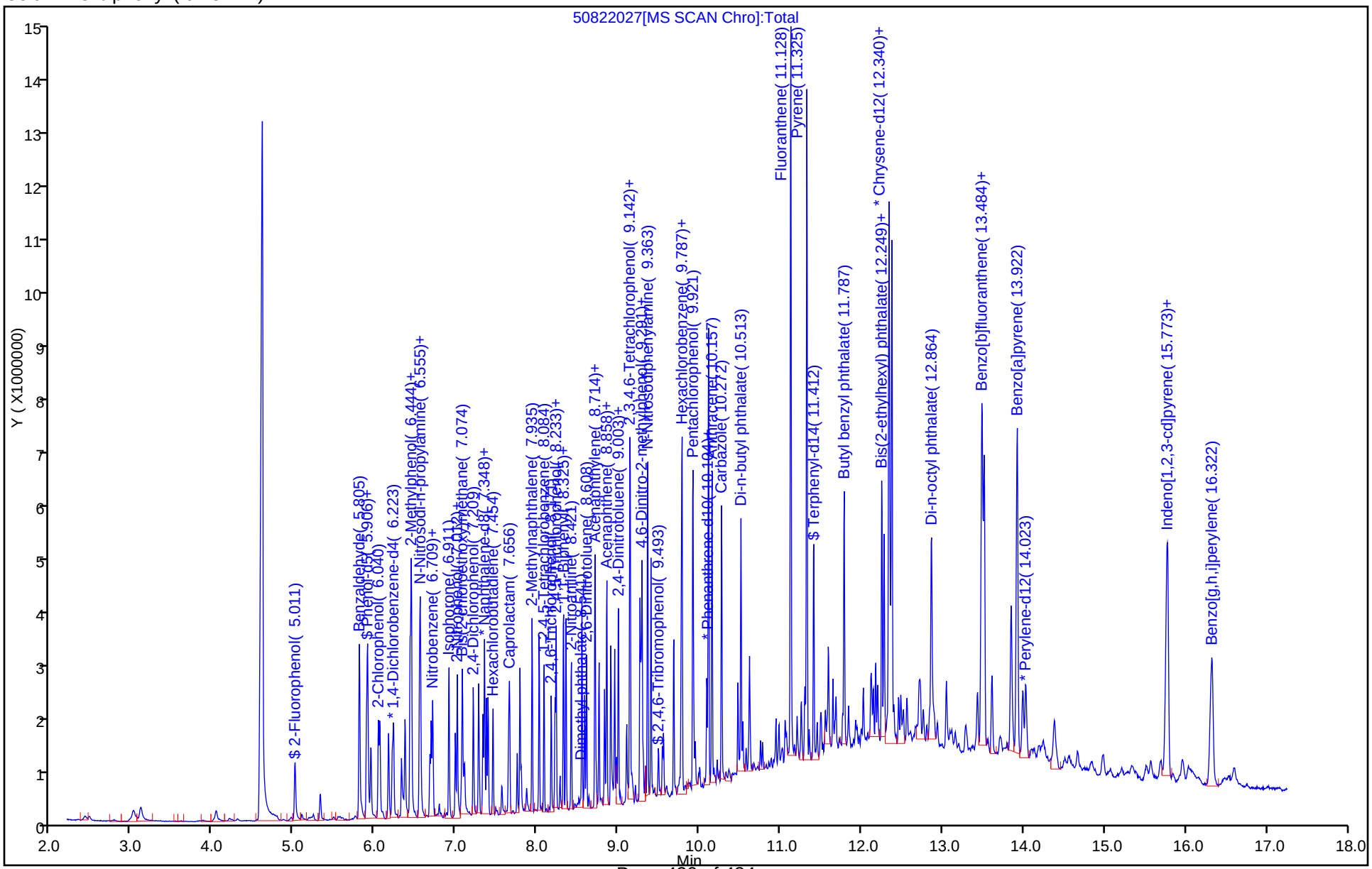
Report Date: 24-Aug-2015 09:27:16 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150822-46571.b\50822027.D

Injection Date:	22-Aug-2015 20:44:30	Instrument ID:	A4HP9	Operator ID:	001710
Lims ID:	240-54203-C-19-I MSD			Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8270 _9	Limit Group:	MSS 8270D ICAL		

Column: 5% phenyl (0.18 mm)



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/08/2015 15:10

Analysis Batch Number: 192437 End Date: 08/08/2015 23:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-192437/1		08/08/2015 15:10	1	50808001.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/2 IC		08/08/2015 15:32	1	50808002.D	RXI-5SILMS 0.45(mm)
STD4 240-192437/3 IC		08/08/2015 15:57	1	50808003.D	RXI-5SILMS 0.45(mm)
STD3 240-192437/4 IC		08/08/2015 16:23	1	50808004.D	RXI-5SILMS 0.45(mm)
STD2 240-192437/5 IC		08/08/2015 16:48	1	50808005.D	RXI-5SILMS 0.45(mm)
STD1 240-192437/6 IC		08/08/2015 17:14	1	50808006.D	RXI-5SILMS 0.45(mm)
STD9 240-192437/7 IC		08/08/2015 17:39	1	50808007.D	RXI-5SILMS 0.45(mm)
STD8 240-192437/8 IC		08/08/2015 18:05	1	50808008.D	RXI-5SILMS 0.45(mm)
STD7 240-192437/9 IC		08/08/2015 18:31	1	50808009.D	RXI-5SILMS 0.45(mm)
STD6 240-192437/10 ICIS		08/08/2015 18:56	1	50808010.D	RXI-5SILMS 0.45(mm)
ICV 240-192437/11		08/08/2015 19:22	1	50808011.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/12 IC		08/08/2015 19:48	1		RXI-5SILMS 0.45(mm)
STD4 240-192437/13 IC		08/08/2015 20:13	1		RXI-5SILMS 0.45(mm)
STD3 240-192437/14 IC		08/08/2015 20:39	1		RXI-5SILMS 0.45(mm)
STD2 240-192437/15 IC		08/08/2015 21:04	1		RXI-5SILMS 0.45(mm)
STD6 240-192437/16 IC		08/08/2015 21:30	1		RXI-5SILMS 0.45(mm)
STD7 240-192437/17 IC		08/08/2015 21:55	1		RXI-5SILMS 0.45(mm)
STD8 240-192437/18 IC		08/08/2015 22:21	1		RXI-5SILMS 0.45(mm)
STD9 240-192437/19 IC		08/08/2015 22:47	1		RXI-5SILMS 0.45(mm)
ICV 240-192437/20		08/08/2015 23:12	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/22/2015 09:35

Analysis Batch Number: 194396 End Date: 08/22/2015 21:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-194396/1		08/22/2015 09:35	1	50822001.D	RXI-5SILMS 0.45(mm)
CCV 240-194396/2 CCVIS		08/22/2015 09:56	1	50822002.D	RXI-5SILMS 0.45(mm)
LODV 240-194396/30		08/22/2015 10:25	1		RXI-5SILMS 0.45(mm)
MB 240-194053/12-A		08/22/2015 10:50	1	50822003.D	RXI-5SILMS 0.45(mm)
LCS 240-194053/13-A		08/22/2015 11:15	1	50822004.D	RXI-5SILMS 0.45(mm)
240-54467-4	D-VB-F-14-2	08/22/2015 17:01	1	50822018.D	RXI-5SILMS 0.45(mm)
240-54467-6	D-VB-F-19-2	08/22/2015 17:26	1	50822019.D	RXI-5SILMS 0.45(mm)
240-54467-5	D-VB-F-15-2	08/22/2015 17:51	1	50822020.D	RXI-5SILMS 0.45(mm)
240-54467-1	D-VS-F-4-1	08/22/2015 18:16	1	50822021.D	RXI-5SILMS 0.45(mm)
240-54467-2	D-VB-F-10-2	08/22/2015 18:41	1	50822022.D	RXI-5SILMS 0.45(mm)
240-54467-3	D-VB-F-13-2	08/22/2015 19:05	6.667	50822023.D	RXI-5SILMS 0.45(mm)
ZZZZZ		08/22/2015 19:30	50		RXI-5SILMS 0.45(mm)
ZZZZZ		08/22/2015 19:55	1		RXI-5SILMS 0.45(mm)
240-54203-C-19-H MS		08/22/2015 20:19	1	50822026.D	RXI-5SILMS 0.45(mm)
240-54203-C-19-I MSD		08/22/2015 20:44	1	50822027.D	RXI-5SILMS 0.45(mm)
ZZZZZ		08/22/2015 21:09	1		RXI-5SILMS 0.45(mm)
ZZZZZ		08/22/2015 21:34	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Batch Number: 194053 Batch Start Date: 08/20/15 10:35 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/21/15 02:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00048	exBNASURR W 00026	
240-54467-B-1	D-VS-F-4-1	3540C, 8270D	T	29.83 g	2 mL			1 mL	
240-54467-B-2	D-VB-F-10-2	3540C, 8270D	T	30.24 g	2 mL			1 mL	
240-54467-B-3	D-VB-F-13-2	3540C, 8270D	T	30.02 g	2 mL			1 mL	
240-54467-B-4	D-VB-F-14-2	3540C, 8270D	T	29.94 g	2 mL			1 mL	
240-54467-B-5	D-VB-F-15-2	3540C, 8270D	T	29.68 g	2 mL			1 mL	
240-54467-B-6	D-VB-F-19-2	3540C, 8270D	T	29.91 g	2 mL			1 mL	
240-54203-C-19 MS		3540C, 8270D	T	30.22 g	2 mL	1 mL	1 mL	1 mL	
240-54203-C-19 MSD		3540C, 8270D	T	30.09 g	2 mL	1 mL	1 mL	1 mL	
MB 240-194053/12		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-194053/13		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339907
Na2SO4 Lot Number	2104026
Prep Solvent Lot #	2137025

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54467-1

SDG No.:

Project: LMC MRC Block D Area F

Client Sample ID	Lab Sample ID
D-VS-F-4-1	240-54467-1
D-VB-F-10-2	240-54467-2
D-VB-F-13-2	240-54467-3
D-VB-F-14-2	240-54467-4
D-VB-F-15-2	240-54467-5
D-VB-F-19-2	240-54467-6

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54467-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54467-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 08/19/2015 08:38 End Date: 08/19/2015 16:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist																								
ZZZZZZ			08:38	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 08/19/2015 08:38 End Date: 08/19/2015 16:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist																								
ZZZZZZ			08:38																										
ZZZZZZ			08:38																										
ZZZZZZ			08:38																										
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ZZZZZZ			08:38																										
ZZZZZZ			08:38																										
240-54467-1	1	T	08:38	X	X																								
240-54467-2 DU	1	T	08:38	X	X																								
240-54467-2	1	T	08:38	X	X																								
240-54467-3	1	T	08:38	X	X																								
240-54467-4	1	T	16:03	X	X																								
240-54467-5	1	T	16:03	X	X																								
240-54467-6	1	T	16:03	X	X																								
ZZZZZZ			16:03																										
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Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Batch Number: 193882 Batch Start Date: 08/19/15 08:38 Batch Analyst: Nguyen, Diem

Batch Method: Moisture Batch End Date: 08/20/15 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54467-A-1	D-VS-F-4-1	Moisture	T	4.2475 g	12.5844 g	11.7813 g			
240-54467-A-2 DU	D-VB-F-10-2	Moisture	T	4.2475 g	9.5564 g	8.7453 g			
240-54467-A-2	D-VB-F-10-2	Moisture	T	4.2475 g	8.7493 g	8.4726 g			
240-54467-A-3	D-VB-F-13-2	Moisture	T	4.2475 g	11.1969 g	10.5801 g			
240-54467-A-4	D-VB-F-14-2	Moisture	T	4.2475 g	13.7356 g	12.2593 g			
240-54467-A-5	D-VB-F-15-2	Moisture	T	4.2475 g	10.9653 g	10.1564 g			
240-54467-A-6	D-VB-F-19-2	Moisture	T	4.2475 g	11.1586 g	10.2112 g			

Batch Notes	
Balance ID	B047 No Unit
Date and Time Samples in Desiccator	8/20/15,05:00
Date and Time Samples out of Desiccator	8/20/15, 08:45
Date samples were placed in the oven	08/19/15
Oven Temp when samples are put in oven	103.9/104.1 Degrees C
Time samples were place in the oven	Trays: 1,2--08:58; 5, 8--16:09
Date samples were removed from oven	8/20/15
Oven Temp when samples removed from oven	103.9 Degrees C
Time Samples were removed from oven	05:00
Oven ID	002
ID number of the thermometer	Tempguard Box C #6

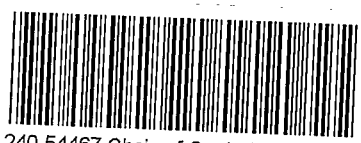
Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS


240-54467 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

CHAIN OF CUSTODY RECORD

0.6/C1.6

TEST America NORTH Canton OH

PROJECT NO.:	SITE NAME:
112IC07483	LMC MRC

SAMPLERS (SIGNATURE): Thomas M Duchon

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAHs (8270D)							REMARKS
BLKD Area F	08/18	0930	X		D-VB-F-4-1	1	1							3 Day TAT
		1030		X	D-VB-F-10-2	1	1							
		1033		X	D-VB-F-13-2	1	1							
		1035		X	D-VB-F-14-2	1	1							
		1037		X	D-VB-F-15-2	1	1							
		1040		X	D-VB-F-19-2	1	1							

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Thomas M Duchon	18Aug15 1200	Paul Gary Leard		8-19-15 1405	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE): 8-19-15 920	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 34467**
Canton Facility

Client Tetratech Site Name _____ Cooler unpacked by:

Cooler Received on 8-19-15 Opened on 8-19-15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.6 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2.	Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
	-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
	-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3.	Shippers' packing slip attached to the cooler(s)?	Yes	No
4.	Did custody papers accompany the sample(s)?	Yes	No
5.	Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7.	Did all bottles arrive in good condition (Unbroken)?	Yes	No
8.	Could all bottle labels be reconciled with the COC?	Yes	No
9.	Were correct bottle(s) used for the test(s) indicated?	Yes	No
10.	Sufficient quantity received to perform indicated analyses?	Yes	No
11.	Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12.	Were VOAs on the COC?	Yes	No
13.	Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14.	Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

ANALYTICAL REPORT

Job Number: 240-54590-1

Job Description: LM MRC Block D Area F1

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
8/26/2015 4:24 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/26/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LM MRC Block D Area F1

Report Number: 240-54590-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/21/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F1-2-2 (240-54590-1), D-VS-F1-3-2 (240-54590-2), D-VB-F1-2-3 (240-54590-3), D-VB-F1-3-3 (240-54590-4), D-VB-F1-6-3 (240-54590-5), D-VB-F1-7-3 (240-54590-6), D-VB-F1-8-3 (240-54590-7) and D-VB-F1-9-3 (240-54590-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/22/2015 and analyzed on 08/25/2015.

2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for 240-54590-D-9-B MS and 240-54590-D-9-C MSD.

Sample D-VS-F1-3-2 (240-54590-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F1-2-2 (240-54590-1), D-VS-F1-3-2 (240-54590-2), D-VB-F1-2-3 (240-54590-3), D-VB-F1-3-3 (240-54590-4), D-VB-F1-6-3 (240-54590-5), D-VB-F1-7-3 (240-54590-6), D-VB-F1-8-3 (240-54590-7) and D-VB-F1-9-3 (240-54590-8) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/24/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 194072

Lab Sample ID: STD5 240-194072/2 IC Client Sample ID:

Date Analyzed: 08/21/15 10:34 Lab File ID: 50821002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 10:53
Pyridine	3.30	Poor chromatography	gruberj	08/21/15 10:53

Lab Sample ID: STD4 240-194072/3 IC Client Sample ID:

Date Analyzed: 08/21/15 10:59 Lab File ID: 50821003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 12:00
Pyridine	3.31	Poor chromatography	gruberj	08/21/15 12:00

Lab Sample ID: STD3 240-194072/4 IC Client Sample ID:

Date Analyzed: 08/21/15 11:23 Lab File ID: 50821004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 11:59
Pyridine	3.31	Poor chromatography	gruberj	08/21/15 11:59
Benzoic acid	6.94	Poor chromatography	gruberj	08/21/15 11:59

Lab Sample ID: STD2 240-194072/5 IC Client Sample ID:

Date Analyzed: 08/21/15 11:47 Lab File ID: 50821005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 12:49
N-Nitrosodimethylamine	3.24	Poor chromatography	gruberj	08/21/15 12:49
Pyridine	3.31	Poor chromatography	gruberj	08/21/15 12:49

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 194072

Lab Sample ID: STD1 240-194072/6 IC Client Sample ID:

Date Analyzed: 08/21/15 12:12 Lab File ID: 50821006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[g,h,i]perylene	17.01	Poor chromatography	gruberj	08/21/15 12:47

Lab Sample ID: STD9 240-194072/7 IC Client Sample ID:

Date Analyzed: 08/21/15 12:36 Lab File ID: 50821007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 13:40
N-Nitrosodimethylamine	3.24	Poor chromatography	gruberj	08/21/15 13:40
Pyridine	3.30	Poor chromatography	gruberj	08/21/15 13:40
Benzoic acid	7.03	Poor chromatography	gruberj	08/21/15 13:40
Caprolactam	7.61	Poor chromatography	gruberj	08/21/15 13:40

Lab Sample ID: STD8 240-194072/8 IC Client Sample ID:

Date Analyzed: 08/21/15 13:00 Lab File ID: 50821008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 13:37
Pyridine	3.31	Poor chromatography	gruberj	08/21/15 13:37
Benzoic acid	7.03	Poor chromatography	gruberj	08/21/15 13:37
Caprolactam	7.60	Poor chromatography	gruberj	08/21/15 13:37

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 194072

Lab Sample ID: STD7 240-194072/9 IC Client Sample ID:

Date Analyzed: 08/21/15 13:25 Lab File ID: 50821009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 13:43
N-Nitrosodimethylamine	3.24	Poor chromatography	gruberj	08/21/15 13:43
Pyridine	3.30	Poor chromatography	gruberj	08/21/15 13:43
Benzoic acid	7.01	Poor chromatography	gruberj	08/21/15 13:43
Caprolactam	7.59	Poor chromatography	gruberj	08/21/15 13:43

Lab Sample ID: STD6 240-194072/10 ICIS Client Sample ID:

Date Analyzed: 08/21/15 13:49 Lab File ID: 50821010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.78	Poor chromatography	gruberj	08/21/15 14:16
Caprolactam	7.58	Poor chromatography	gruberj	08/21/15 14:16

Lab Sample ID: ICV 240-194072/11 Client Sample ID:

Date Analyzed: 08/21/15 14:14 Lab File ID: 50821011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.77	Poor chromatography	gruberj	08/21/15 14:32
N-Nitrosodimethylamine	3.26	Poor chromatography	gruberj	08/21/15 14:32
Pyridine	3.30	Poor chromatography	gruberj	08/21/15 14:32
Caprolactam	7.58	Poor chromatography	gruberj	08/21/15 14:32

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 194668

Lab Sample ID: CCV 240-194668/2 CCVIS Client Sample ID:

Date Analyzed: 08/25/15 09:15 Lab File ID: 50825002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.74	Poor chromatography	gruberj	08/25/15 09:39
N-Nitrosodimethylamine	3.23	Poor chromatography	gruberj	08/25/15 09:39
Pyridine	3.30	Poor chromatography	gruberj	08/25/15 09:39
Benzoic acid	6.99	Poor chromatography	gruberj	08/25/15 09:39
Caprolactam	7.57	Poor chromatography	gruberj	08/25/15 09:39

Lab Sample ID: 240-54590-D-9-B MS Client Sample ID:

Date Analyzed: 08/25/15 10:52 Lab File ID: 50825006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.22	Poor chromatography	gruberj	08/25/15 13:04

Lab Sample ID: 240-54590-D-9-C MSD Client Sample ID:

Date Analyzed: 08/25/15 11:17 Lab File ID: 50825007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.22	Poor chromatography	gruberj	08/25/15 13:06

Lab Sample ID: 240-54590-2 Client Sample ID: D-VS-F1-3-2

Date Analyzed: 08/25/15 11:41 Lab File ID: 50825008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.22	Poor chromatography	gruberj	08/25/15 13:07

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 194668

Lab Sample ID: 240-54590-1 Client Sample ID: D-VS-F1-2-2

Date Analyzed: 08/25/15 12:06 Lab File ID: 50825009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.22	Poor chromatography	gruberj	08/25/15 13:08

Lab Sample ID: 240-54590-5 Client Sample ID: D-VB-F1-6-3

Date Analyzed: 08/25/15 12:30 Lab File ID: 50825010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.22	Poor chromatography	gruberj	08/25/15 13:08

Lab Sample ID: 240-54590-8 Client Sample ID: D-VB-F1-9-3

Date Analyzed: 08/25/15 12:55 Lab File ID: 50825011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	14.22	Poor chromatography	gruberj	08/25/15 14:39

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54590-1	D-VS-F1-2-2	Solid	08/19/2015 1600	08/21/2015 0915
240-54590-2	D-VS-F1-3-2	Solid	08/19/2015 1605	08/21/2015 0915
240-54590-3	D-VB-F1-2-3	Solid	08/19/2015 1630	08/21/2015 0915
240-54590-4	D-VB-F1-3-3	Solid	08/19/2015 1635	08/21/2015 0915
240-54590-5	D-VB-F1-6-3	Solid	08/19/2015 1640	08/21/2015 0915
240-54590-6	D-VB-F1-7-3	Solid	08/19/2015 1645	08/21/2015 0915
240-54590-7	D-VB-F1-8-3	Solid	08/19/2015 1650	08/21/2015 0915
240-54590-8	D-VB-F1-9-3	Solid	08/19/2015 1655	08/21/2015 0915

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54590-1	**D-VS-F1-2-2**					
Acenaphthene		9.5		7.4	ug/Kg	8270D
Acenaphthylene		9.2		7.4	ug/Kg	8270D
Anthracene		17		7.4	ug/Kg	8270D
Benzo[a]anthracene		69		7.4	ug/Kg	8270D
Benzo[a]pyrene		88		7.4	ug/Kg	8270D
Benzo[b]fluoranthene		150		7.4	ug/Kg	8270D
Benzo[g,h,i]perylene		69		7.4	ug/Kg	8270D
Benzo[k]fluoranthene		53		7.4	ug/Kg	8270D
Chrysene		97		7.4	ug/Kg	8270D
Dibenz(a,h)anthracene		20		7.4	ug/Kg	8270D
Fluoranthene		110		7.4	ug/Kg	8270D
Fluorene		8.2		7.4	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		61		7.4	ug/Kg	8270D
Naphthalene		6.7	J	7.4	ug/Kg	8270D
Phenanthrene		63		7.4	ug/Kg	8270D
Pyrene		95		7.4	ug/Kg	8270D
Percent Solids		91		0.10	%	Moisture
Percent Moisture		8.8		0.10	%	Moisture
240-54590-2	**D-VS-F1-3-2**					
Acenaphthene		160		30	ug/Kg	8270D
Acenaphthylene		22	J	30	ug/Kg	8270D
Anthracene		350		30	ug/Kg	8270D
Benzo[a]anthracene		1100		30	ug/Kg	8270D
Benzo[a]pyrene		990		30	ug/Kg	8270D
Benzo[b]fluoranthene		1400		30	ug/Kg	8270D
Benzo[g,h,i]perylene		500		30	ug/Kg	8270D
Benzo[k]fluoranthene		560		30	ug/Kg	8270D
Chrysene		1200		30	ug/Kg	8270D
Dibenz(a,h)anthracene		150		30	ug/Kg	8270D
Fluoranthene		3000		30	ug/Kg	8270D
Fluorene		120		30	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		470		30	ug/Kg	8270D
Naphthalene		39		30	ug/Kg	8270D
Phenanthrene		1400		30	ug/Kg	8270D
Pyrene		2400		30	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		10		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54590-3	**D-VB-F1-2-3**					
Benzo[b]fluoranthene		4.1	J	7.7	ug/Kg	8270D
Fluoranthene		6.0	J	7.7	ug/Kg	8270D
Pyrene		5.7	J	7.7	ug/Kg	8270D
Percent Solids		87		0.10	%	Moisture
Percent Moisture		13		0.10	%	Moisture
240-54590-4	**D-VB-F1-3-3**					
Benzo[b]fluoranthene		4.0	J	7.8	ug/Kg	8270D
Fluoranthene		4.9	J	7.8	ug/Kg	8270D
Phenanthrene		4.6	J	7.8	ug/Kg	8270D
Pyrene		4.5	J	7.8	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54590-5	**D-VB-F1-6-3**					
Acenaphthene		9.4		7.6	ug/Kg	8270D
Acenaphthylene		6.9	J	7.6	ug/Kg	8270D
Anthracene		23		7.6	ug/Kg	8270D
Benzo[a]anthracene		80		7.6	ug/Kg	8270D
Benzo[a]pyrene		70		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		150		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		48		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		49		7.6	ug/Kg	8270D
Chrysene		130		7.6	ug/Kg	8270D
Dibenz(a,h)anthracene		16		7.6	ug/Kg	8270D
Fluoranthene		160		7.6	ug/Kg	8270D
Fluorene		9.9		7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		47		7.6	ug/Kg	8270D
Naphthalene		14		7.6	ug/Kg	8270D
Phenanthrene		95		7.6	ug/Kg	8270D
Pyrene		140		7.6	ug/Kg	8270D
Percent Solids		87		0.10	%	Moisture
Percent Moisture		13		0.10	%	Moisture
240-54590-6	**D-VB-F1-7-3**					
Benzo[b]fluoranthene		5.2	J	7.9	ug/Kg	8270D
Chrysene		6.3	J	7.9	ug/Kg	8270D
Fluoranthene		5.6	J	7.9	ug/Kg	8270D
Phenanthrene		4.1	J	7.9	ug/Kg	8270D
Pyrene		6.3	J	7.9	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54590-7	**D-VB-F1-8-3**					
Pyrene		4.1	J	7.7	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54590-8	**D-VB-F1-9-3**					
Acenaphthene		5.2	J	7.6	ug/Kg	8270D
Anthracene		10		7.6	ug/Kg	8270D
Benzo[a]anthracene		39		7.6	ug/Kg	8270D
Benzo[a]pyrene		39		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		61		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		20		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		21		7.6	ug/Kg	8270D
Chrysene		43		7.6	ug/Kg	8270D
Dibenz(a,h)anthracene		6.5	J	7.6	ug/Kg	8270D
Fluoranthene		68		7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		20		7.6	ug/Kg	8270D
Naphthalene		5.0	J	7.6	ug/Kg	8270D
Phenanthrene		38		7.6	ug/Kg	8270D
Pyrene		59		7.6	ug/Kg	8270D
Percent Solids		89		0.10	%	Moisture
Percent Moisture		11		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Method	Analyst	Analyst ID
SW846 8270D	Gruber, John	JMG
EPA Moisture	Nolle, Laura C	LCN

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: D-VS-F1-2-2

Lab Sample ID: 240-54590-1 Date Sampled: 08/19/2015 1600
Client Matrix: Solid % Moisture: 8.8 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825009.D
Dilution:	1.0			Initial Weight/Volume:	29.78 g
Analysis Date:	08/25/2015 1206			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.5		0.84	7.4
Acenaphthylene		9.2		0.39	7.4
Anthracene		17		0.86	7.4
Benzo[a]anthracene		69		0.70	7.4
Benzo[a]pyrene		88		0.71	7.4
Benzo[b]fluoranthene		150		0.65	7.4
Benzo[g,h,i]perylene		69		0.39	7.4
Benzo[k]fluoranthene		53		0.75	7.4
Chrysene		97		1.2	7.4
Dibenz(a,h)anthracene		20		0.73	7.4
Fluoranthene		110		0.61	7.4
Fluorene		8.2		0.59	7.4
Indeno[1,2,3-cd]pyrene		61		0.39	7.4
Naphthalene		6.7	J	0.91	7.4
Phenanthrene		63		0.81	7.4
Pyrene		95		0.49	7.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	85		36 - 110
Phenol-d5 (Surr)	75		26 - 110
Nitrobenzene-d5 (Surr)	66		20 - 110
2-Fluorophenol (Surr)	73		24 - 110
2-Fluorobiphenyl (Surr)	73		24 - 110
2,4,6-Tribromophenol (Surr)	25		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: **D-VS-F1-3-2**

Lab Sample ID: 240-54590-2 Date Sampled: 08/19/2015 1605
Client Matrix: Solid % Moisture: 10.0 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825008.D
Dilution:	4.0			Initial Weight/Volume:	29.89 g
Analysis Date:	08/25/2015 1141			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		160		3.4	30
Acenaphthylene		22	J	1.6	30
Anthracene		350		3.5	30
Benzo[a]anthracene		1100		2.8	30
Benzo[a]pyrene		990		2.9	30
Benzo[b]fluoranthene		1400		2.6	30
Benzo[g,h,i]perylene		500		1.6	30
Benzo[k]fluoranthene		560		3.0	30
Chrysene		1200		4.9	30
Dibenz(a,h)anthracene		150		2.9	30
Fluoranthene		3000		2.5	30
Fluorene		120		2.4	30
Indeno[1,2,3-cd]pyrene		470		1.6	30
Naphthalene		39		3.7	30
Phenanthrene		1400		3.3	30
Pyrene		2400		2.0	30

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	76		36 - 110
Phenol-d5 (Surr)	66		26 - 110
Nitrobenzene-d5 (Surr)	57		20 - 110
2-Fluorophenol (Surr)	64		24 - 110
2-Fluorobiphenyl (Surr)	70		24 - 110
2,4,6-Tribromophenol (Surr)	33		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: D-VB-F1-2-3

Lab Sample ID: 240-54590-3 Date Sampled: 08/19/2015 1630
Client Matrix: Solid % Moisture: 13.4 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825014.D
Dilution:	1.0			Initial Weight/Volume:	29.94 g
Analysis Date:	08/25/2015 1408			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.88	U	0.88	7.7
Acenaphthylene		0.41	U	0.41	7.7
Anthracene		0.90	U	0.90	7.7
Benzo[a]anthracene		0.73	U	0.73	7.7
Benzo[a]pyrene		0.74	U	0.74	7.7
Benzo[b]fluoranthene		4.1	J	0.68	7.7
Benzo[g,h,i]perylene		0.41	U	0.41	7.7
Benzo[k]fluoranthene		0.79	U	0.79	7.7
Chrysene		1.3	U	1.3	7.7
Dibenz(a,h)anthracene		0.76	U	0.76	7.7
Fluoranthene		6.0	J	0.64	7.7
Fluorene		0.61	U	0.61	7.7
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.7
Naphthalene		0.95	U	0.95	7.7
Phenanthrene		0.84	U	0.84	7.7
Pyrene		5.7	J	0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	83		36 - 110
Phenol-d5 (Surr)	67		26 - 110
Nitrobenzene-d5 (Surr)	60		20 - 110
2-Fluorophenol (Surr)	64		24 - 110
2-Fluorobiphenyl (Surr)	66		24 - 110
2,4,6-Tribromophenol (Surr)	32		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: **D-VB-F1-3-3**

Lab Sample ID: 240-54590-4 Date Sampled: 08/19/2015 1635
Client Matrix: Solid % Moisture: 14.5 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825012.D
Dilution:	1.0			Initial Weight/Volume:	30.17 g
Analysis Date:	08/25/2015 1319			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.88	U	0.88	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		0.91	U	0.91	7.8
Benzo[a]anthracene		0.73	U	0.73	7.8
Benzo[a]pyrene		0.74	U	0.74	7.8
Benzo[b]fluoranthene		4.0	J	0.69	7.8
Benzo[g,h,i]perylene		0.41	U	0.41	7.8
Benzo[k]fluoranthene		0.79	U	0.79	7.8
Chrysene		1.3	U	1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		4.9	J	0.64	7.8
Fluorene		0.62	U	0.62	7.8
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.8
Naphthalene		0.95	U	0.95	7.8
Phenanthrene		4.6	J	0.85	7.8
Pyrene		4.5	J	0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	81		36 - 110
Phenol-d5 (Surr)	75		26 - 110
Nitrobenzene-d5 (Surr)	65		20 - 110
2-Fluorophenol (Surr)	72		24 - 110
2-Fluorobiphenyl (Surr)	70		24 - 110
2,4,6-Tribromophenol (Surr)	24		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: **D-VB-F1-6-3**

Lab Sample ID: 240-54590-5 Date Sampled: 08/19/2015 1640
Client Matrix: Solid % Moisture: 13.1 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825010.D
Dilution:	1.0			Initial Weight/Volume:	30.39 g
Analysis Date:	08/25/2015 1230			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.4		0.86	7.6
Acenaphthylene		6.9	J	0.40	7.6
Anthracene		23		0.89	7.6
Benzo[a]anthracene		80		0.72	7.6
Benzo[a]pyrene		70		0.73	7.6
Benzo[b]fluoranthene		150		0.67	7.6
Benzo[g,h,i]perylene		48		0.40	7.6
Benzo[k]fluoranthene		49		0.77	7.6
Chrysene		130		1.2	7.6
Dibenz(a,h)anthracene		16		0.75	7.6
Fluoranthene		160		0.62	7.6
Fluorene		9.9		0.60	7.6
Indeno[1,2,3-cd]pyrene		47		0.40	7.6
Naphthalene		14		0.93	7.6
Phenanthrene		95		0.83	7.6
Pyrene		140		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	81		36 - 110
Phenol-d5 (Surr)	65		26 - 110
Nitrobenzene-d5 (Surr)	57		20 - 110
2-Fluorophenol (Surr)	63		24 - 110
2-Fluorobiphenyl (Surr)	64		24 - 110
2,4,6-Tribromophenol (Surr)	18		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: **D-VB-F1-7-3**

Lab Sample ID: 240-54590-6 Date Sampled: 08/19/2015 1645
Client Matrix: Solid % Moisture: 15.0 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825013.D
Dilution:	1.0			Initial Weight/Volume:	29.66 g
Analysis Date:	08/25/2015 1344			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.42	U	0.42	7.9
Anthracene		0.93	U	0.93	7.9
Benzo[a]anthracene		0.75	U	0.75	7.9
Benzo[a]pyrene		0.76	U	0.76	7.9
Benzo[b]fluoranthene		5.2	J	0.70	7.9
Benzo[g,h,i]perylene		0.42	U	0.42	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		6.3	J	1.3	7.9
Dibenz(a,h)anthracene		0.79	U	0.79	7.9
Fluoranthene		5.6	J	0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	7.9
Naphthalene		0.98	U	0.98	7.9
Phenanthrene		4.1	J	0.87	7.9
Pyrene		6.3	J	0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	85		36 - 110
Phenol-d5 (Surr)	74		26 - 110
Nitrobenzene-d5 (Surr)	64		20 - 110
2-Fluorophenol (Surr)	64		24 - 110
2-Fluorobiphenyl (Surr)	71		24 - 110
2,4,6-Tribromophenol (Surr)	38		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: **D-VB-F1-8-3**

Lab Sample ID: 240-54590-7 Date Sampled: 08/19/2015 1650
Client Matrix: Solid % Moisture: 14.5 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825015.D
Dilution:	1.0			Initial Weight/Volume:	30.22 g
Analysis Date:	08/25/2015 1433			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.88	U	0.88	7.7
Acenaphthylene		0.41	U	0.41	7.7
Anthracene		0.91	U	0.91	7.7
Benzo[a]anthracene		0.73	U	0.73	7.7
Benzo[a]pyrene		0.74	U	0.74	7.7
Benzo[b]fluoranthene		0.69	U	0.69	7.7
Benzo[g,h,i]perylene		0.41	U	0.41	7.7
Benzo[k]fluoranthene		0.79	U	0.79	7.7
Chrysene		1.3	U	1.3	7.7
Dibenz(a,h)anthracene		0.77	U	0.77	7.7
Fluoranthene		0.64	U	0.64	7.7
Fluorene		0.62	U	0.62	7.7
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.7
Naphthalene		0.95	U	0.95	7.7
Phenanthrene		0.85	U	0.85	7.7
Pyrene		4.1	J	0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	84		36 - 110
Phenol-d5 (Surr)	70		26 - 110
Nitrobenzene-d5 (Surr)	60		20 - 110
2-Fluorophenol (Surr)	67		24 - 110
2-Fluorobiphenyl (Surr)	67		24 - 110
2,4,6-Tribromophenol (Surr)	31		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Client Sample ID: **D-VB-F1-9-3**

Lab Sample ID: 240-54590-8 Date Sampled: 08/19/2015 1655
Client Matrix: Solid % Moisture: 11.0 Date Received: 08/21/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-194401	Lab File ID:	50825011.D
Dilution:	1.0			Initial Weight/Volume:	29.65 g
Analysis Date:	08/25/2015 1255			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		5.2	J	0.86	7.6
Acenaphthylene		0.40	U	0.40	7.6
Anthracene		10		0.89	7.6
Benzo[a]anthracene		39		0.72	7.6
Benzo[a]pyrene		39		0.73	7.6
Benzo[b]fluoranthene		61		0.67	7.6
Benzo[g,h,i]perylene		20		0.40	7.6
Benzo[k]fluoranthene		21		0.77	7.6
Chrysene		43		1.3	7.6
Dibenz(a,h)anthracene		6.5	J	0.75	7.6
Fluoranthene		68		0.63	7.6
Fluorene		0.60	U	0.60	7.6
Indeno[1,2,3-cd]pyrene		20		0.40	7.6
Naphthalene		5.0	J	0.93	7.6
Phenanthrene		38		0.83	7.6
Pyrene		59		0.50	7.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	83		36 - 110
Phenol-d5 (Surr)	60		26 - 110
Nitrobenzene-d5 (Surr)	54		20 - 110
2-Fluorophenol (Surr)	57		24 - 110
2-Fluorobiphenyl (Surr)	59		24 - 110
2,4,6-Tribromophenol (Surr)	15		10 - 110

General Chemistry

Client Sample ID: **D-VS-F1-2-2**

Lab Sample ID: 240-54590-1 Date Sampled: 08/19/2015 1600
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	91		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	8.8		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-F1-3-2**

Lab Sample ID: 240-54590-2 Date Sampled: 08/19/2015 1605
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	10		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-2-3**

Lab Sample ID: 240-54590-3 Date Sampled: 08/19/2015 1630
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-3-3**

Lab Sample ID: 240-54590-4 Date Sampled: 08/19/2015 1635
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-6-3**

Lab Sample ID: 240-54590-5 Date Sampled: 08/19/2015 1640
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-7-3**

Lab Sample ID: 240-54590-6 Date Sampled: 08/19/2015 1645
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-8-3**

Lab Sample ID: 240-54590-7 Date Sampled: 08/19/2015 1650
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-9-3**

Lab Sample ID: 240-54590-8 Date Sampled: 08/19/2015 1655
Client Matrix: Solid Date Received: 08/21/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	89		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N
Percent Moisture	11		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194490	Analysis Date: 08/24/2015 0842						DryWt Corrected: N

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54590-1	D-VS-F1-2-2	73	75	66	73	25	85
240-54590-2	D-VS-F1-3-2	64	66	57	70	33	76
240-54590-3	D-VB-F1-2-3	64	67	60	66	32	83
240-54590-4	D-VB-F1-3-3	72	75	65	70	24	81
240-54590-5	D-VB-F1-6-3	63	65	57	64	18	81
240-54590-6	D-VB-F1-7-3	64	74	64	71	38	85
240-54590-7	D-VB-F1-8-3	67	70	60	67	31	84
240-54590-8	D-VB-F1-9-3	57	60	54	59	15	83
MB 240-194401/12-A		72	82	74	78	21	90
LCS 240-194401/13-A		85	84	81	80	43	92
240-54590-D-9-B MS		0X	0X	0X	0X	0X	0X
240-54590-D-9-C MSD		0X	0X	0X	0X	0X	0X

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Method Blank - Batch: 240-194401

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-194401/12-A	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-194401	Lab File ID:	50825003.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/25/2015 0939	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	90	36 - 110
Phenol-d5 (Surr)	82	26 - 110
Nitrobenzene-d5 (Surr)	74	20 - 110
2-Fluorophenol (Surr)	72	24 - 110
2-Fluorobiphenyl (Surr)	78	24 - 110
2,4,6-Tribromophenol (Surr)	21	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Control Sample - Batch: 240-194401

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-194401/13-A	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-194401	Lab File ID:	50825004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/25/2015 1003	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	538	81	38 - 110	
Acenaphthylene	667	551	83	40 - 110	
Anthracene	667	572	86	48 - 110	
Benzo[a]anthracene	667	586	88	50 - 110	
Benzo[a]pyrene	667	618	93	44 - 110	
Benzo[b]fluoranthene	667	591	89	43 - 110	
Benzo[g,h,i]perylene	667	615	92	51 - 110	
Benzo[k]fluoranthene	667	596	89	38 - 105	
Chrysene	667	610	91	50 - 110	
Dibenz(a,h)anthracene	667	627	94	51 - 110	
Fluoranthene	667	586	88	51 - 110	
Fluorene	667	546	82	46 - 110	
Indeno[1,2,3-cd]pyrene	667	624	94	50 - 110	
Naphthalene	667	544	82	36 - 110	
Phenanthrene	667	574	86	49 - 110	
Pyrene	667	576	86	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	92	36 - 110
Phenol-d5 (Surr)	84	26 - 110
Nitrobenzene-d5 (Surr)	81	20 - 110
2-Fluorophenol (Surr)	85	24 - 110
2-Fluorobiphenyl (Surr)	80	24 - 110
2,4,6-Tribromophenol (Surr)	43	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-194401

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54590-D-9-B MS	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-194401	Lab File ID:	50825006.D
Dilution:	1000	Leach Batch:	N/A	Initial Weight/Volume:	30.33 g
Analysis Date:	08/25/2015 1052			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54590-D-9-C MSD	Analysis Batch:	240-194668	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-194401	Lab File ID:	50825007.D
Dilution:	1000	Leach Batch:	N/A	Initial Weight/Volume:	29.75 g
Analysis Date:	08/25/2015 1117			Final Weight/Volume:	2 mL
Prep Date:	08/22/2015 0942			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	-54065	-31477	22 - 110	38	99	4	4
Acenaphthylene	-1003	-663	24 - 110	19	99	4	4
Anthracene	-23085	-14428	20 - 110	36	99	4	4
Benzo[a]anthracene	-30002	-16786	10 - 122	32	99	4	4
Benzo[a]pyrene	-19467	-10079	10 - 110	38	99	4	4
Benzo[b]fluoranthene	-29876	-12182	12 - 118	39	99	4	4
Benzo[g,h,i]perylene	-8805	-3799	10 - 117	40	99	4	4
Benzo[k]fluoranthene	-13797	-7672	10 - 121	40	99	4	4
Chrysene	-26149	-14391	10 - 125	40	99	4	4
Dibenz(a,h)anthracene	-2200	-1012	14 - 113	32	99	4	4
Fluoranthene	-131482	-74956	10 - 110	29	99	4	4
Fluorene	-47726	-29238	23 - 110	40	99	4	4
Indeno[1,2,3-cd]pyrene	-8281	-3721	10 - 114	40	99	4	4
Naphthalene	-81881	-52459	10 - 111	62	99	4	4
Phenanthrene	-156543	-82643	10 - 166	37	99	4	4
Pyrene	-96629	-56448	10 - 147	31	99	4	4

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
Terphenyl-d14 (Surr)	0	X	0	X	36 - 110
Phenol-d5 (Surr)	0	X	0	X	26 - 110
Nitrobenzene-d5 (Surr)	0	X	0	X	20 - 110
2-Fluorophenol (Surr)	0	X	0	X	24 - 110
2-Fluorobiphenyl (Surr)	0	X	0	X	24 - 110
2,4,6-Tribromophenol (Surr)	0	X	0	X	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-194401

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54590-D-9-B MS	Units: ug/Kg	MSD Lab Sample ID:	240-54590-D-9-C MSD	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1000		Dilution:	1000	
Analysis Date:	08/25/2015 1052		Analysis Date:	08/25/2015 1117	
Prep Date:	08/22/2015 0942		Prep Date:	08/22/2015 0942	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Acenaphthene	850000	836	852	397000	4	580000	4
Acenaphthylene	22000	836	852	13100	4	15900	4
Anthracene	350000	836	852	160000	4	230000	4
Benzo[a]anthracene	530000	836	852	279000	4	387000	4
Benzo[a]pyrene	330000	836	852	164000	4	241000	4
Benzo[b]fluoranthene	550000	836	852	301000	4	447000	4
Benzo[g,h,i]perylene	150000	836	852	81400	4	123000	4
Benzo[k]fluoranthene	210000	836	852	98900	4	149000	4
Chrysene	410000	836	852	193000	4	289000	4
Dibenz(a,h)anthracene	44000	836	852	25800	4	35600	4
Fluoranthene	2500000	836	852	1360000	4	1820000	4
Fluorene	700000	836	852	299000	4	449000	4
Indeno[1,2,3-cd]pyrene	140000	836	852	74000	4	112000	4
Naphthalene	950000	836	852	262000	4	500000	4
Phenanthrene	2700000	836	852	1350000	4	1960000	4
Pyrene	1700000	836	852	904000	4	1230000	4

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Duplicate - Batch: 240-194490

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54590-7	Analysis Batch:	240-194490	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/24/2015 0842	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	85	84	1	20	
Percent Moisture	15	16	7	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

Client: Tetra Tech, Inc. Job Number: 240-54590-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-194401					
LCS 240-194401/13-A	Lab Control Sample	T	Solid	3540C	
MB 240-194401/12-A	Method Blank	T	Solid	3540C	
240-54590-1	D-VS-F1-2-2	T	Solid	3540C	
240-54590-2	D-VS-F1-3-2	T	Solid	3540C	
240-54590-3	D-VB-F1-2-3	T	Solid	3540C	
240-54590-4	D-VB-F1-3-3	T	Solid	3540C	
240-54590-5	D-VB-F1-6-3	T	Solid	3540C	
240-54590-6	D-VB-F1-7-3	T	Solid	3540C	
240-54590-7	D-VB-F1-8-3	T	Solid	3540C	
240-54590-8	D-VB-F1-9-3	T	Solid	3540C	
240-54590-D-9-B MS	Matrix Spike	T	Solid	3540C	
240-54590-D-9-C MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-194668					
LCS 240-194401/13-A	Lab Control Sample	T	Solid	8270D	240-194401
MB 240-194401/12-A	Method Blank	T	Solid	8270D	240-194401
240-54590-1	D-VS-F1-2-2	T	Solid	8270D	240-194401
240-54590-2	D-VS-F1-3-2	T	Solid	8270D	240-194401
240-54590-3	D-VB-F1-2-3	T	Solid	8270D	240-194401
240-54590-4	D-VB-F1-3-3	T	Solid	8270D	240-194401
240-54590-5	D-VB-F1-6-3	T	Solid	8270D	240-194401
240-54590-6	D-VB-F1-7-3	T	Solid	8270D	240-194401
240-54590-7	D-VB-F1-8-3	T	Solid	8270D	240-194401
240-54590-8	D-VB-F1-9-3	T	Solid	8270D	240-194401
240-54590-D-9-B MS	Matrix Spike	T	Solid	8270D	240-194401
240-54590-D-9-C MSD	Matrix Spike Duplicate	T	Solid	8270D	240-194401

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54590-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-194490					
240-54590-1	D-VS-F1-2-2	T	Solid	Moisture	
240-54590-2	D-VS-F1-3-2	T	Solid	Moisture	
240-54590-3	D-VB-F1-2-3	T	Solid	Moisture	
240-54590-4	D-VB-F1-3-3	T	Solid	Moisture	
240-54590-5	D-VB-F1-6-3	T	Solid	Moisture	
240-54590-6	D-VB-F1-7-3	T	Solid	Moisture	
240-54590-7	D-VB-F1-8-3	T	Solid	Moisture	
240-54590-7DU	Duplicate	T	Solid	Moisture	
240-54590-8	D-VB-F1-9-3	T	Solid	Moisture	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Laboratory Chronicle

Lab ID: 240-54590-1 **Client ID: D-VS-F1-2-2**

Sample Date/Time: 08/19/2015 16:00 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-1-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-1-A		240-194668	240-194401	08/25/2015 12:06	1	TAL CAN	JMG
A:Moisture	240-54590-A-1		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-2 **Client ID: D-VS-F1-3-2**

Sample Date/Time: 08/19/2015 16:05 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-2-A		240-194668	240-194401	08/22/2015 09:42	4	TAL CAN	SDE
A:8270D	240-54590-B-2-A		240-194668	240-194401	08/25/2015 11:41	4	TAL CAN	JMG
A:Moisture	240-54590-A-2		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-3 **Client ID: D-VB-F1-2-3**

Sample Date/Time: 08/19/2015 16:30 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-3-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-3-A		240-194668	240-194401	08/25/2015 14:08	1	TAL CAN	JMG
A:Moisture	240-54590-A-3		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-4 **Client ID: D-VB-F1-3-3**

Sample Date/Time: 08/19/2015 16:35 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-4-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-4-A		240-194668	240-194401	08/25/2015 13:19	1	TAL CAN	JMG
A:Moisture	240-54590-A-4		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-5 **Client ID: D-VB-F1-6-3**

Sample Date/Time: 08/19/2015 16:40 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-5-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-5-A		240-194668	240-194401	08/25/2015 12:30	1	TAL CAN	JMG
A:Moisture	240-54590-A-5		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Laboratory Chronicle

Lab ID: 240-54590-6 **Client ID: D-VB-F1-7-3**

Sample Date/Time: 08/19/2015 16:45 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-6-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-6-A		240-194668	240-194401	08/25/2015 13:44	1	TAL CAN	JMG
A:Moisture	240-54590-A-6		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-7 **Client ID: D-VB-F1-8-3**

Sample Date/Time: 08/19/2015 16:50 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-7-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-7-A		240-194668	240-194401	08/25/2015 14:33	1	TAL CAN	JMG
A:Moisture	240-54590-A-7		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-7 DU **Client ID: D-VB-F1-8-3**

Sample Date/Time: 08/19/2015 16:50 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54590-A-7 DU		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: 240-54590-8 **Client ID: D-VB-F1-9-3**

Sample Date/Time: 08/19/2015 16:55 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-B-8-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	240-54590-B-8-A		240-194668	240-194401	08/25/2015 12:55	1	TAL CAN	JMG
A:Moisture	240-54590-A-8		240-194490		08/24/2015 08:42	1	TAL CAN	LCN

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	MB 240-194401/12-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	MB 240-194401/12-A		240-194668	240-194401	08/25/2015 09:39	1	TAL CAN	JMG

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	LCS 240-194401/13-A		240-194668	240-194401	08/22/2015 09:42	1	TAL CAN	SDE
A:8270D	LCS 240-194401/13-A		240-194668	240-194401	08/25/2015 10:03	1	TAL CAN	JMG

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Laboratory Chronicle

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 08/20/2015 12:00 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-D-9-B MS		240-194668	240-194401	08/22/2015 09:42	1000	TAL CAN	SDE
A:8270D	240-54590-D-9-B MS		240-194668	240-194401	08/25/2015 10:52	1000	TAL CAN	JMG

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 08/20/2015 12:00 Received Date/Time: 08/21/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54590-D-9-C MSD		240-194668	240-194401	08/22/2015 09:42	1000	TAL CAN	SDE
A:8270D	240-54590-D-9-C MSD		240-194668	240-194401	08/25/2015 11:17	1000	TAL CAN	JMG

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00028	08/31/16	08/17/15	MEOH, Lot 147358	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00049	08/31/16	08/18/15	MEOH, Lot 147358	200 mL	exLIST1_S1_00004	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.exLIST1_S1_00004	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMIS80PPMW_00013	07/10/16	07/10/15	MECL2, Lot 0000103549	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54590-1
Project/Site: LM MRC Block D Area F1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	T104704517-14-3
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F1-2-2	240-54590-1	73	75	66	73	25	85
D-VS-F1-3-2	240-54590-2	64	66	57	70	33	76
D-VB-F1-2-3	240-54590-3	64	67	60	66	32	83
D-VB-F1-3-3	240-54590-4	72	75	65	70	24	81
D-VB-F1-6-3	240-54590-5	63	65	57	64	18	81
D-VB-F1-7-3	240-54590-6	64	74	64	71	38	85
D-VB-F1-8-3	240-54590-7	67	70	60	67	31	84
D-VB-F1-9-3	240-54590-8	57	60	54	59	15	83
	MB 240-194401/12-A	72	82	74	78	21	90
	LCS 240-194401/13-A	85	84	81	80	43	92
	240-54590-D-9-B MS	0 X	0 X	0 X	0 X	0 X	0 X
	240-54590-D-9-C MSD	0 X	0 X	0 X	0 X	0 X	0 X

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825004.D

Lab ID: LCS 240-194401/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	538	81	38-110	
Acenaphthylene	667	551	83	40-110	
Anthracene	667	572	86	48-110	
Benzo[a]anthracene	667	586	88	50-110	
Benzo[a]pyrene	667	618	93	44-110	
Benzo[b]fluoranthene	667	591	89	43-110	
Benzo[g,h,i]perylene	667	615	92	51-110	
Benzo[k]fluoranthene	667	596	89	38-105	
Chrysene	667	610	91	50-110	
Dibenz(a,h)anthracene	667	627	94	51-110	
Fluoranthene	667	586	88	51-110	
Fluorene	667	546	82	46-110	
Indeno[1,2,3-cd]pyrene	667	624	94	50-110	
Naphthalene	667	544	82	36-110	
Phenanthrene	667	574	86	49-110	
Pyrene	667	576	86	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825006.D

Lab ID: 240-54590-D-9-B MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	836	850000	397000	-54065	22-110	4
Acenaphthylene	836	22000	13100	-1003	24-110	4
Anthracene	836	350000	160000	-23085	20-110	4
Benzo[a]anthracene	836	530000	279000	-30002	10-122	4
Benzo[a]pyrene	836	330000	164000	-19467	10-110	4
Benzo[b]fluoranthene	836	550000	301000	-29876	12-118	4
Benzo[g,h,i]perylene	836	150000	81400	-8805	10-117	4
Benzo[k]fluoranthene	836	210000	98900	-13797	10-121	4
Chrysene	836	410000	193000	-26149	10-125	4
Dibenz(a,h)anthracene	836	44000	25800	-2200	14-113	4
Fluoranthene	836	2500000	1360000	-131482	10-110	4
Fluorene	836	700000	299000	-47726	23-110	4
Indeno[1,2,3-cd]pyrene	836	140000	74000	-8281	10-114	4
Naphthalene	836	950000	262000	-88181	10-111	4
Phenanthrene	836	2700000	1350000	-156543	10-166	4
Pyrene	836	1700000	904000	-96629	10-147	4

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825007.D

Lab ID: 240-54590-D-9-C MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	852	580000	-31477	38	99	22-110	4
Acenaphthylene	852	15900	-663	19	99	24-110	4
Anthracene	852	230000	-14428	36	99	20-110	4
Benzo[a]anthracene	852	387000	-16786	32	99	10-122	4
Benzo[a]pyrene	852	241000	-10079	38	99	10-110	4
Benzo[b]fluoranthene	852	447000	-12182	39	99	12-118	4
Benzo[g,h,i]perylene	852	123000	-3799	40	99	10-117	4
Benzo[k]fluoranthene	852	149000	-7672	40	99	10-121	4
Chrysene	852	289000	-14391	40	99	10-125	4
Dibenz(a,h)anthracene	852	35600	-1012	32	99	14-113	4
Fluoranthene	852	1820000	-74956	29	99	10-110	4
Fluorene	852	449000	-29238	40	99	23-110	4
Indeno[1,2,3-cd]pyrene	852	112000	-3721	40	99	10-114	4
Naphthalene	852	500000	-52459	62	99	10-111	4
Phenanthrene	852	1960000	-82643	37	99	10-166	4
Pyrene	852	1230000	-56448	31	99	10-147	4

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50825003.D Lab Sample ID: MB 240-194401/12-A

Matrix: Solid Date Extracted: 08/22/2015 09:42

Instrument ID: A4HP10 Date Analyzed: 08/25/2015 09:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194401/13-A	50825004.D	08/25/2015 10:03
	240-54590-D-9-B MS	50825006.D	08/25/2015 10:52
	240-54590-D-9-C MSD	50825007.D	08/25/2015 11:17
D-VS-F1-3-2	240-54590-2	50825008.D	08/25/2015 11:41
D-VS-F1-2-2	240-54590-1	50825009.D	08/25/2015 12:06
D-VB-F1-6-3	240-54590-5	50825010.D	08/25/2015 12:30
D-VB-F1-9-3	240-54590-8	50825011.D	08/25/2015 12:55
D-VB-F1-3-3	240-54590-4	50825012.D	08/25/2015 13:19
D-VB-F1-7-3	240-54590-6	50825013.D	08/25/2015 13:44
D-VB-F1-2-3	240-54590-3	50825014.D	08/25/2015 14:08
D-VB-F1-8-3	240-54590-7	50825015.D	08/25/2015 14:33

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50821001.D DFTPP Injection Date: 08/21/2015

Instrument ID: A4HP10 DFTPP Injection Time: 10:14

Analysis Batch No.: 194072

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	42.8	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	52.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	24.9	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	84.9	
443	15.0 - 24.0% of mass 442	15.8	(18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-194072/2	50821002.D	08/21/2015	10:34
	STD4 240-194072/3	50821003.D	08/21/2015	10:59
	STD3 240-194072/4	50821004.D	08/21/2015	11:23
	STD2 240-194072/5	50821005.D	08/21/2015	11:47
	STD1 240-194072/6	50821006.D	08/21/2015	12:12
	STD9 240-194072/7	50821007.D	08/21/2015	12:36
	STD8 240-194072/8	50821008.D	08/21/2015	13:00
	STD7 240-194072/9	50821009.D	08/21/2015	13:25
	STD6 240-194072/10	50821010.D	08/21/2015	13:49
	ICV 240-194072/11	50821011.D	08/21/2015	14:14

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50825001.D DFTPP Injection Date: 08/25/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:50

Analysis Batch No.: 194668

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.9	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	24.2	
365	Greater than 0.75% of mass 198	2.7	
441	Present, but less than mass 443	0.3	
442	40.0 - 110.0% of mass 198	73.6	
443	15.0 - 24.0% of mass 442	13.9	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-194668/2	50825002.D	08/25/2015	09:15
	MB 240-194401/12-A	50825003.D	08/25/2015	09:39
	LCS 240-194401/13-A	50825004.D	08/25/2015	10:03
	240-54590-D-9-B MS	50825006.D	08/25/2015	10:52
	240-54590-D-9-C MSD	50825007.D	08/25/2015	11:17
D-VS-F1-3-2	240-54590-2	50825008.D	08/25/2015	11:41
D-VS-F1-2-2	240-54590-1	50825009.D	08/25/2015	12:06
D-VB-F1-6-3	240-54590-5	50825010.D	08/25/2015	12:30
D-VB-F1-9-3	240-54590-8	50825011.D	08/25/2015	12:55
D-VB-F1-3-3	240-54590-4	50825012.D	08/25/2015	13:19
D-VB-F1-7-3	240-54590-6	50825013.D	08/25/2015	13:44
D-VB-F1-2-3	240-54590-3	50825014.D	08/25/2015	14:08
D-VB-F1-8-3	240-54590-7	50825015.D	08/25/2015	14:33

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: STD6 240-194072/10 Date Analyzed: 08/21/2015 13:49

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50821010.D Heated Purge: (Y/N) N

Calibration ID: 30232

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224220	6.13	879627	7.24	521434	8.75
UPPER LIMIT		448440	6.63	1759254	7.74	1042868	9.25
LOWER LIMIT		112110	5.63	439814	6.74	260717	8.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194072/11		229197	6.13	924447	7.24	542195	8.75
CCV 240-194668/2 CCVIS		203356	6.12	780563	7.23	437094	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: STD6 240-194072/10 Date Analyzed: 08/21/2015 13:49

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50821010.D Heated Purge: (Y/N) N

Calibration ID: 30232

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		851220	10.01	954139	12.66	878332	14.80
UPPER LIMIT		1702440	10.51	1908278	13.16	1756664	15.30
LOWER LIMIT		425610	9.51	477070	12.16	439166	14.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194072/11		880815	10.01	991122	12.66	921925	14.80
CCV 240-194668/2 CCVIS		715015	10.01	789914	12.64	743101	14.79

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: CCV 240-194668/2 Date Analyzed: 08/25/2015 09:15

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50825002.D Heated Purge: (Y/N) N

Calibration ID: 30282

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203356	6.12	780563	7.23	437094	8.74
UPPER LIMIT		406712	6.62	1561126	7.73	874188	9.24
LOWER LIMIT		101678	5.62	390282	6.73	218547	8.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194401/12-A		173018	6.12	722461	7.23	444284	8.74
LCS 240-194401/13-A		167829	6.12	693880	7.23	421481	8.74
240-54590-D-9-B MS		190043	6.12	758322	7.23	455033	8.74
240-54590-D-9-C MSD		188778	6.12	757431	7.23	456550	8.74
240-54590-2	D-VS-F1-3-2	188150	6.12	759148	7.23	449898	8.74
240-54590-1	D-VS-F1-2-2	184140	6.12	750597	7.23	459267	8.74
240-54590-5	D-VB-F1-6-3	189245	6.12	779612	7.23	468841	8.74
240-54590-8	D-VB-F1-9-3	195306	6.12	765028	7.23	471079	8.74
240-54590-4	D-VB-F1-3-3	186163	6.12	773121	7.23	471672	8.74
240-54590-6	D-VB-F1-7-3	189103	6.12	776189	7.23	457308	8.74
240-54590-3	D-VB-F1-2-3	189778	6.12	773126	7.23	465918	8.74
240-54590-7	D-VB-F1-8-3	179661	6.12	747601	7.23	448238	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: CCV 240-194668/2 Date Analyzed: 08/25/2015 09:15

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50825002.D Heated Purge: (Y/N) N

Calibration ID: 30282

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		715015	10.01	789914	12.64	743101	14.79
UPPER LIMIT		1430030	10.51	1579828	13.14	1486202	15.29
LOWER LIMIT		357508	9.51	394957	12.14	371551	14.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194401/12-A		726756	10.00	799333	12.64	716423	14.78
LCS 240-194401/13-A		690162	10.01	780175	12.64	722450	14.79
240-54590-D-9-B MS		756049	10.01	851176	12.64	797023	14.78
240-54590-D-9-C MSD		755191	10.00	843973	12.64	790916	14.78
240-54590-2	D-VS-F1-3-2	775949	10.00	863444	12.64	786273	14.79
240-54590-1	D-VS-F1-2-2	768343	10.00	851369	12.64	765361	14.79
240-54590-5	D-VB-F1-6-3	786890	10.00	883840	12.64	784669	14.79
240-54590-8	D-VB-F1-9-3	778188	10.00	869047	12.64	769820	14.79
240-54590-4	D-VB-F1-3-3	787574	10.00	866163	12.63	752978	14.78
240-54590-6	D-VB-F1-7-3	784835	10.00	841354	12.64	736997	14.78
240-54590-3	D-VB-F1-2-3	771151	10.00	854967	12.64	741689	14.78
240-54590-7	D-VB-F1-8-3	750763	10.00	825999	12.64	713003	14.78

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VS-F1-2-2 | Lab Sample ID: 240-54590-1

Matrix: Solid | Lab File ID: 50825009.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:00

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.78(g) | Date Analyzed: 08/25/2015 12:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.5		7.4	0.84
208-96-8	Acenaphthylene	9.2		7.4	0.39
120-12-7	Anthracene	17		7.4	0.86
56-55-3	Benzo[a]anthracene	69		7.4	0.70
50-32-8	Benzo[a]pyrene	88		7.4	0.71
205-99-2	Benzo[b]fluoranthene	150		7.4	0.65
191-24-2	Benzo[g,h,i]perylene	69		7.4	0.39
207-08-9	Benzo[k]fluoranthene	53		7.4	0.75
218-01-9	Chrysene	97		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	20		7.4	0.73
206-44-0	Fluoranthene	110		7.4	0.61
86-73-7	Fluorene	8.2		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	61		7.4	0.39
91-20-3	Naphthalene	6.7	J	7.4	0.91
85-01-8	Phenanthrene	63		7.4	0.81
129-00-0	Pyrene	95		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	73		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	25		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54590-2

Matrix: Solid | Lab File ID: 50825008.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:05

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.89(g) | Date Analyzed: 08/25/2015 11:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160		30	3.4
208-96-8	Acenaphthylene	22	J	30	1.6
120-12-7	Anthracene	350		30	3.5
56-55-3	Benzo[a]anthracene	1100		30	2.8
50-32-8	Benzo[a]pyrene	990		30	2.9
205-99-2	Benzo[b]fluoranthene	1400		30	2.6
191-24-2	Benzo[g,h,i]perylene	500		30	1.6
207-08-9	Benzo[k]fluoranthene	560		30	3.0
218-01-9	Chrysene	1200		30	4.9
53-70-3	Dibenz(a,h)anthracene	150		30	2.9
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	120		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	470		30	1.6
91-20-3	Naphthalene	39		30	3.7
85-01-8	Phenanthrene	1400		30	3.3
129-00-0	Pyrene	2400		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-2-3 | Lab Sample ID: 240-54590-3

Matrix: Solid | Lab File ID: 50825014.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:30

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.94(g) | Date Analyzed: 08/25/2015 14:08

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	0.73	U	7.7	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.7	0.74
205-99-2	Benzo[b]fluoranthene	4.1	J	7.7	0.68
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.7	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.7	0.79
218-01-9	Chrysene	1.3	U	7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	6.0	J	7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	0.84	U	7.7	0.84
129-00-0	Pyrene	5.7	J	7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	66		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-3-3 | Lab Sample ID: 240-54590-4

Matrix: Solid | Lab File ID: 50825012.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:35

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.17(g) | Date Analyzed: 08/25/2015 13:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.8	0.74
205-99-2	Benzo[b]fluoranthene	4.0	J	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	4.9	J	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.95	U	7.8	0.95
85-01-8	Phenanthrene	4.6	J	7.8	0.85
129-00-0	Pyrene	4.5	J	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	24		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-6-3 | Lab Sample ID: 240-54590-5

Matrix: Solid | Lab File ID: 50825010.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:40

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.39(g) | Date Analyzed: 08/25/2015 12:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.4		7.6	0.86
208-96-8	Acenaphthylene	6.9	J	7.6	0.40
120-12-7	Anthracene	23		7.6	0.89
56-55-3	Benzo[a]anthracene	80		7.6	0.72
50-32-8	Benzo[a]pyrene	70		7.6	0.73
205-99-2	Benzo[b]fluoranthene	150		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	48		7.6	0.40
207-08-9	Benzo[k]fluoranthene	49		7.6	0.77
218-01-9	Chrysene	130		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	16		7.6	0.75
206-44-0	Fluoranthene	160		7.6	0.62
86-73-7	Fluorene	9.9		7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	47		7.6	0.40
91-20-3	Naphthalene	14		7.6	0.93
85-01-8	Phenanthrene	95		7.6	0.83
129-00-0	Pyrene	140		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-7-3 | Lab Sample ID: 240-54590-6

Matrix: Solid | Lab File ID: 50825013.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:45

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.66(g) | Date Analyzed: 08/25/2015 13:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	5.2	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	6.3	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	5.6	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	4.1	J	7.9	0.87
129-00-0	Pyrene	6.3	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-8-3 | Lab Sample ID: 240-54590-7

Matrix: Solid | Lab File ID: 50825015.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:50

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.22(g) | Date Analyzed: 08/25/2015 14:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.91	U	7.7	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.7	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.7	0.74
205-99-2	Benzo[b]fluoranthene	0.69	U	7.7	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.7	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.7	0.79
218-01-9	Chrysene	1.3	U	7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	0.64	U	7.7	0.64
86-73-7	Fluorene	0.62	U	7.7	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	0.85	U	7.7	0.85
129-00-0	Pyrene	4.1	J	7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	70		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	31		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-9-3 | Lab Sample ID: 240-54590-8

Matrix: Solid | Lab File ID: 50825011.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:55

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.65(g) | Date Analyzed: 08/25/2015 12:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.2	J	7.6	0.86
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	10		7.6	0.89
56-55-3	Benzo[a]anthracene	39		7.6	0.72
50-32-8	Benzo[a]pyrene	39		7.6	0.73
205-99-2	Benzo[b]fluoranthene	61		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	20		7.6	0.40
207-08-9	Benzo[k]fluoranthene	21		7.6	0.77
218-01-9	Chrysene	43		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	6.5	J	7.6	0.75
206-44-0	Fluoranthene	68		7.6	0.63
86-73-7	Fluorene	0.60	U	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	20		7.6	0.40
91-20-3	Naphthalene	5.0	J	7.6	0.93
85-01-8	Phenanthrene	38		7.6	0.83
129-00-0	Pyrene	59		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194072/6	50821006.D
Level 2	STD2 240-194072/5	50821005.D
Level 3	STD3 240-194072/4	50821004.D
Level 4	STD4 240-194072/3	50821003.D
Level 5	STD5 240-194072/2	50821002.D
Level 6	STD6 240-194072/10	50821010.D
Level 7	STD7 240-194072/9	50821009.D
Level 8	STD8 240-194072/8	50821008.D
Level 9	STD9 240-194072/7	50821007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6040	0.6959 0.6222	0.6974 0.6206	0.6487 0.6338	0.6316	Ave		0.6443				5.4		20.0			
N-Nitrosodimethylamine	0.8858	0.9169 0.8825	0.8873 0.8941	0.8646 0.9006	0.8674	Ave		0.8874				1.9		20.0			
Pyridine	1.6416	1.7695 1.6574	1.7319 1.6727	1.6409 1.6892	1.6981	Ave		1.6877				2.7		20.0			
Benzaldehyde	1.2173	1.4338 1.2049	1.3554 1.1605	1.3259 1.1193	1.2945	Ave		1.2640			0.0100	8.4		20.0			
Phenol	1.9100	2.0162 1.9008	1.9137 1.8915	1.9186 1.9337	1.9183	Ave		1.9253			0.8000	2.0		20.0			
Aniline	2.3399	2.4242 2.3639	2.3326 2.3682	2.3270 2.3995	2.3314	Ave		2.3608				1.5		20.0			
Bis(2-chloroethyl)ether	1.4727	1.5775 1.4766	1.6009 1.4802	1.4918 1.4882	1.5055	Ave		1.5117			0.7000	3.3		20.0			
2-Chlorophenol	1.4645	1.4665 1.4826	1.4577 1.4979	1.4490 1.5063	1.4815	Ave		1.4758			0.8000	1.3		20.0			
n-Decane	1.5489	1.7181 1.5203	1.6565 1.4755	1.6685 1.5068	1.6022	Ave		1.5871				5.5		20.0			
1,3-Dichlorobenzene	1.5498	1.6358 1.5642	1.5499 1.5930	1.5705 1.5943	1.5523	Ave		1.5762				1.9		20.0			
1,4-Dichlorobenzene	1.5828	1.6327 1.5800	1.6173 1.6007	1.5853 1.6491	1.5711	Ave		1.6024				1.7		20.0			
Benzyl alcohol	0.9711	0.9950 0.9787	0.9963 0.9947	1.0130 0.9985	0.9681	Ave		0.9894				1.6		20.0			
1,2-Dichlorobenzene	1.4944	1.5558 1.5130	1.5150 1.5359	1.4751 1.5484	1.4879	Ave		1.5157				1.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.3692	1.3415 1.3711	1.4003 1.3821	1.3883 1.3832	1.3810	Ave		1.3771			0.7000	1.3		20.0			
bis (2-chloroisopropyl) ether	1.5306	1.9688 1.4654	1.7702 1.4298	1.7500 1.4254	1.6690	Ave		1.6262				12.1		20.0			
Indene	2.7092	2.8843 2.6847	2.7958 2.6636	2.7934 2.5987	2.7460	Ave		2.7345				3.3		20.0			
3 & 4 Methylphenol	1.4288	1.4306 1.4178	1.4593 1.4572	1.4234 1.4589	1.4223	Ave		1.4373				1.3		20.0			
N-Nitrosodi-n-propylamine	0.9459	1.0476 0.8942	1.0197 0.9004	0.9759 0.8725	1.0122	Ave		0.9586			0.5000	6.8		20.0			
Acetophenone	2.0480	2.2623 2.0288	2.1364 2.0343	2.1218 2.0325	2.0701	Ave		2.0918			0.0100	3.8		20.0			
Hexachloroethane	0.6432	0.6901 0.6344	0.6594 0.6502	0.6584 0.6544	0.6614	Ave		0.6564			0.3000	2.5		20.0			
Nitrobenzene	0.4200	0.4256 0.4093	0.4146 0.4232	0.4142 0.4033	0.4138	Ave		0.4155			0.2000	1.8		20.0			
Isophorone	0.7708	0.8097 0.7479	0.7652 0.7785	0.7591 0.7610	0.7624	Ave		0.7693			0.4000	2.4		20.0			
2-Nitrophenol	0.1892	0.1369 0.1911	0.1438 0.1953	0.1636 0.1936	0.1713	Ave		0.1731			0.1000	13.4		20.0			
2,4-Dimethylphenol	0.3905	0.4075 0.3857	0.3974 0.3960	0.3836 0.3835	0.3865	Ave		0.3913			0.2000	2.2		20.0			
Benzoic acid	0.2057	+++++ 0.2058	0.0952 0.2282	0.1169 0.2204	0.1650	Lin1	-0.349	0.2256							0.9960		0.9900
Bis(2-chloroethoxy)methane	0.4452	0.4868 0.4389	0.4669 0.4459	0.4527 0.4390	0.4397	Ave		0.4519			0.3000	3.7		20.0			
2,4-Dichlorophenol	0.3108	0.3007 0.3098	0.3077 0.3189	0.3043 0.3173	0.3025	Ave		0.3090			0.2000	2.1		20.0			
1,2,4-Trichlorobenzene	0.3270	0.3363 0.3287	0.3356 0.3362	0.3150 0.3314	0.3116	Ave		0.3277				2.9		20.0			
Naphthalene	1.2430 1.0793	1.1229 1.0809	1.0504 1.1097	1.0192 1.0807	1.0589	Ave		1.0939			0.7000	5.8		20.0			
4-Chloroaniline	0.4617	0.4787 0.4515	0.4416 0.4606	0.4317 0.4748	0.4421	Ave		0.4553			0.0100	3.6		20.0			
2,6-Dichlorophenol	0.3002	0.2988 0.2988	0.2971 0.3140	0.2835 0.3035	0.2873	Ave		0.2979				3.2		20.0			
Hexachlorobutadiene	0.1924	0.1968 0.1895	0.1887 0.1958	0.1851 0.1925	0.1851	Ave		0.1907			0.0100	2.3		20.0			
Caprolactam	0.1201	0.1038 0.1134	0.1082 0.1215	0.1089 0.1187	0.1143	Ave		0.1136			0.0100	5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3309	0.3083 0.3293	0.3165 0.3339	0.3146 0.3288	0.3200	Ave		0.3228			0.2000	2.8		20.0			
2-Methylnaphthalene	0.7986 0.7357	0.7095 0.7197	0.7153 0.7584	0.6847 0.7380	0.7133	Ave		0.7304			0.4000	4.5		20.0			
1-Methylnaphthalene	0.6601 0.6356	0.6239 0.6226	0.6326 0.6559	0.6156 0.6408	0.6069	Ave		0.6327				2.8		20.0			
Hexachlorocyclopentadiene	0.3411	0.2741 0.3684	0.2750 0.3843	0.3116 0.3887	0.3407	Ave		0.3355			0.0500	13.5		20.0			
1,2,4,5-Tetrachlorobenzene	0.5685	0.5815 0.5780	0.5541 0.5867	0.5585 0.5800	0.5621	Ave		0.5712			0.0100	2.1		20.0			
2,4,6-Trichlorophenol	0.3813	0.3359 0.3926	0.3713 0.4021	0.3672 0.3965	0.3680	Ave		0.3769			0.2000	5.7		20.0			
2,4,5-Trichlorophenol	0.4013	0.3740 0.4082	0.3758 0.4215	0.3792 0.4180	0.3900	Ave		0.3960			0.2000	4.8		20.0			
1,1'-Biphenyl	1.5350 1.4413	1.4582 1.4742	1.4494 1.5023	1.4184 1.4738	1.4347	Ave		1.4653			0.0100	2.5		20.0			
2-Chloronaphthalene	1.2853 1.1457	1.1706 1.1855	1.1713 1.2048	1.1607 1.1939	1.1338	Ave		1.1835			0.8000	3.7		20.0			
2-Nitroaniline	0.3705	0.3049 0.3671	0.3130 0.3668	0.3430 0.3590	0.3575	Ave		0.3477			0.0100	7.3		20.0			
Dimethyl phthalate	1.3906	1.4009 1.3847	1.3282 1.4244	1.2964 1.3970	1.3188	Ave		1.3676			0.0100	3.4		20.0			
1,3-Dinitrobenzene	0.2163	0.1204 0.2175	0.1339 0.2227	0.1580 0.2236	0.1854	Lin1	-0.078	0.2233							0.9980		0.9900
2,6-Dinitrotoluene	0.3092	0.2602 0.3164	0.2777 0.3179	0.2889 0.3140	0.2972	Ave		0.2977				7.0		20.0			
Acenaphthylene	1.7413 1.8369	1.7251 1.8643	1.7594 1.8997	1.7458 1.8543	1.7776	Ave		1.8005			0.9000	3.5		20.0			
3-Nitroaniline	0.3152	0.2452 0.3295	0.2839 0.3355	0.2742 0.3318	0.2941	Ave		0.3012			0.0100	10.7		20.0			
2,4-Dinitrophenol	0.1581	+++++ 0.1803	0.0526 0.1913	0.0757 0.1840	0.1144	Lin1	-0.382	0.1901			0.0100				0.9920		0.9900
Acenaphthene	1.2716 1.1389	1.1789 1.1281	1.1664 1.1707	1.1055 1.1263	1.1065	Ave		1.1548			0.9000	4.5		20.0			
4-Nitrophenol	0.2141	0.1581 0.2085	0.1836 0.2185	0.1847 0.2155	0.2089	Ave		0.1990				10.7		20.0			
2,4-Dinitrotoluene	0.4148	0.2989 0.4126	0.3332 0.4250	0.3501 0.4224	0.3828	Ave		0.3800			0.2000	12.5		20.0			
Dibenzofuran	1.8450 1.6594	1.6638 1.7053	1.6451 1.7485	1.6207 1.7170	1.6103	Ave		1.6906			0.8000	4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3369	0.2865 0.3420	0.2906 0.3564	0.2907 0.3529	0.3133	Ave		0.3212			0.0100	9.2		20.0			
Diethyl phthalate	1.3471	1.3648 1.3401	1.3153 1.3587	1.2796 1.3179	1.3096	Ave		1.3291			0.0100	2.2		20.0			
Hexadecane	0.4800	0.5652 0.4617	0.5692 0.4418	0.5230 0.4153	0.5165	Ave		0.4966				11.3		20.0			
4-Chlorophenyl phenyl ether	0.6492	0.6417 0.6691	0.6533 0.6930	0.6379 0.6810	0.6309	Ave		0.6570			0.4000	3.3		20.0			
4-Nitroaniline	0.3223	0.2650 0.3255	0.2897 0.3201	0.3051 0.3114	0.3166	Ave		0.3070			0.0100	6.7		20.0			
Fluorene	1.4846 1.3760	1.3807 1.4094	1.3236 1.4259	1.3004 1.3955	1.3370	Ave		1.3815			0.9000	4.1		20.0			
4,6-Dinitro-2-methylphenol	0.1421	+++++ 0.1527	0.0663 0.1576	0.0896 0.1572	0.1153	Lin1	-0.243	0.1598			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.6184	0.6291 0.6206	0.6130 0.6261	0.5958 0.6215	0.6030	Ave		0.6160			0.0100	1.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8800	0.9411 0.8696	0.8983 0.8783	0.8773 0.8528	0.8970	Ave		0.8865				2.9		20.0			
Azobenzene	0.8803	0.9392 0.8694	0.8982 0.8785	0.8761 0.8529	0.8975	Ave		0.8865				2.9		20.0			
4-Bromophenyl phenyl ether	0.2348	0.2449 0.2354	0.2129 0.2433	0.2084 0.2456	0.2218	Ave		0.2309			0.1000	6.4		20.0			
Hexachlorobenzene	0.2908 0.2406	0.2548 0.2496	0.2465 0.2570	0.2301 0.2587	0.2434	Ave		0.2524			0.1000	6.7		20.0			
Atrazine	0.2408	0.2500 0.2351	0.2405 0.2363	0.2312 0.2288	0.2371	Ave		0.2375			0.0100	2.7		20.0			
Pentachlorophenol	0.1838	0.1445 0.1883	0.1363 0.1976	0.1472 0.1964	0.1615	Ave		0.1694			0.0500	14.7		20.0			
n-Octadecane	0.7939	0.9361 0.7451	0.9188 0.7119	0.8801 0.6645	0.8809	Ave		0.8164				12.5		20.0			
Phenanthrene	1.3172 1.2084	1.2327 1.2073	1.1947 1.2443	1.1062 1.2342	1.1419	Ave		1.2097			0.7000	5.0		20.0			
Anthracene	1.2313 1.2270	1.2109 1.2503	1.1620 1.2862	1.1241 1.2431	1.1622	Ave		1.2108			0.7000	4.3		20.0			
Carbazole	1.0911	1.1726 1.0579	1.0679 1.1001	1.0429 1.1111	1.0718	Ave		1.0894			0.0100	3.7		20.0			
Di-n-butyl phthalate	1.4497	1.4102 1.4571	1.3651 1.4752	1.3491 1.3966	1.4199	Ave		1.4154			0.0100	3.1		20.0			
Fluoranthene	1.4846 1.3814	1.3205 1.4116	1.2842 1.4574	1.2536 1.4331	1.2972	Ave		1.3693			0.6000	6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6922	0.3939 0.7462	0.4426 0.7550	0.4963 0.7182	0.5881	Lin1	-0.540	0.7376							0.9960		0.9900
Pyrene	1.4140 1.2745	1.2505 1.2945	1.2439 1.3496	1.2042 1.3086	1.2117	Ave		1.2835			0.6000	5.3		20.0			
Butyl benzyl phthalate	0.5839	0.5422 0.5762	0.5516 0.5937	0.5413 0.5775	0.5743	Ave		0.5676			0.0100	3.5		20.0			
3,3'-Dichlorobenzidine	0.4589	0.3567 0.4760	0.3731 0.4993	0.3892 0.4971	0.4175	Ave		0.4335			0.0100	13.1		20.0			
Bis(2-ethylhexyl) phthalate	0.8018	0.8396 0.7801	0.7919 0.7802	0.7747 0.7421	0.8053	Ave		0.7895			0.0100	3.6		20.0			
Benzo[a]anthracene	1.2536 1.1534	1.1486 1.1780	1.0978 1.2211	1.1054 1.1978	1.0935	Ave		1.1610			0.8000	4.9		20.0			
Chrysene	1.1362 1.0800	1.0760 1.0718	1.0317 1.1296	0.9841 1.1224	1.0361	Ave		1.0742			0.7000	4.7		20.0			
Di-n-octyl phthalate	1.5438	1.3557 1.5805	1.4060 1.6113	1.4267 1.6067	1.4667	Ave		1.4997			0.0100	6.6		20.0			
Benzo[b]fluoranthene	1.2300 1.2237	1.1302 1.3123	1.1949 1.2827	1.1559 1.3282	1.1202	Ave		1.2198			0.7000	6.3		20.0			
Benzo[k]fluoranthene	1.3705 1.2792	1.3167 1.3046	1.1679 1.4267	1.2287 1.3720	1.2364	Ave		1.3003			0.7000	6.3		20.0			
Benzo[a]pyrene	0.9437 1.1888	1.1006 1.2550	1.0794 1.2900	1.1104 1.3098	1.1003	Ave		1.1531			0.7000	10.2		20.0			
Indeno[1,2,3-cd]pyrene	1.0663 1.2661	1.1836 1.3288	1.1265 1.3762	1.1632 1.3820	1.1716	Ave		1.2294			0.5000	9.2		20.0			
Dibenz(a,h)anthracene	0.8903 1.0564	0.9038 1.1138	0.9045 1.1600	0.9532 1.1871	0.9596	Ave		1.0143			0.4000	11.5		20.0			
Benzo[g,h,i]perylene	1.0477 1.0586	0.9920 1.0912	1.0118 1.1356	0.9344 1.1484	0.9869	Ave		1.0452			0.5000	6.8		20.0			
2-Fluorophenol (Surr)	1.4205	1.4310 1.4327	1.4490 1.4474	1.4312 1.4738	1.4458	Ave		1.4414				1.1		20.0			
Phenol-d5 (Surr)	1.8285	1.8395 1.8284	1.9001 1.8330	1.8377 1.8447	1.8167	Ave		1.8411				1.4		20.0			
Nitrobenzene-d5 (Surr)	0.4774 0.4663	0.4830 0.4550	0.4437 0.4686	0.4598 0.4478	0.4593	Ave		0.4623				2.8		20.0			
2-Fluorobiphenyl (Surr)	1.4015 1.3284	1.3599 1.3356	1.3376 1.3740	1.2962 1.3518	1.2996	Ave		1.3427				2.5		20.0			
2,4,6-Tribromophenol (Surr)	0.1786	0.1462 0.1856	0.1558 0.1953	0.1603 0.1932	0.1649	Ave		0.1725				10.6		20.0			
Terphenyl-d14 (Surr)	1.0197 0.8069	0.8402 0.8325	0.8128 0.8556	0.7775 0.8514	0.7882	Ave		0.8428				8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194072/6	50821006.D
Level 2	STD2 240-194072/5	50821005.D
Level 3	STD3 240-194072/4	50821004.D
Level 4	STD4 240-194072/3	50821003.D
Level 5	STD5 240-194072/2	50821002.D
Level 6	STD6 240-194072/10	50821010.D
Level 7	STD7 240-194072/9	50821009.D
Level 8	STD8 240-194072/8	50821008.D
Level 9	STD9 240-194072/7	50821007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	338577	17110 485334	33622 644268	60006 788244	137008	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	496516	22541 688338	42780 928237	79978 1120102	188173	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	920185	43503 1292796	83497 1736522	151791 2100925	368392	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1364696	70500 1879705	130695 2409575	245315 2784282	561675	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	1070630	49568 1482690	92263 1963577	177486 2405047	416150	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1311641	59599 1843881	112461 2458511	215265 2984356	505767	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	825536	38784 1151765	77183 1536620	138000 1850908	326605	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	820926	36055 1156463	70280 1555047	134047 1873482	321397	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	868245	42240 1185893	79861 1531740	154349 1874107	347583	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	868765	40217 1220089	74722 1653717	145283 1982833	336757	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	887252	40139 1232455	77974 1661722	146647 2051064	340836	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	544348	24462 763400	48032 1032641	93705 1241861	210011	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	837707	38249 1180175	73042 1594498	136457 1925865	322793	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	767528	32982 1069500	67509 1434829	128424 1720377	299593	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	857993	48404 1143040	85343 1484355	161889 1772769	362078	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	3037233	141823 4188284	269579 5530353	516816 6464316	1191407	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	800922	35171 1105916	70357 1512769	131674 1814505	308546	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	530222	25756 697513	49161 934710	90280 1085190	219583	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1148033	55618 1582481	103001 2111867	196277 2527893	449079	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	360565	16967 494846	31791 674941	60908 813959	143479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	923548	41255 1268920	80505 1728765	153772 2023770	357472	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1695086	78492 2318727	148597 3180628	281856 3818637	658592	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	416126	13271 592571	27920 797988	60758 971720	147963	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	858717	39507 1195894	77173 1617622	142429 1924321	333893	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	904868	+++++ 1276185	36981 1864775	86822 2211632	285002	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	979053	47187 1360711	90660 1821795	168079 2202627	379808	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	683418	29154 960538	59746 1303021	112991 1591945	261343	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	719178	32604 1019179	65170 1373602	116964 1662989	269186	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25627 2373363	108848 3351109	203984 4533463	378429 5422698	914774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	1015271	46407 1399833	85759 1881567	160293 2382294	381875	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	660065	28969 926199	57691 1282825	105258 1522890	248180	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	423114	19079 587514	36644 799764	68724 966161	159898	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	528432	20131 702896	42027 992844	80834 1191553	197548	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	727569	29882 1020780	61458 1364223	116824 1649758	276431	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16464 1617897	68781 2231206	138910 3098407	254230 3703024	616238	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	13610 1397624	60484 1930321	122844 2679504	228557 3215291	524242	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 444598	15449 659117	30280 918569	65742 1139137	166676	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 741090	32770 1034128	61020 1402198	117849 1699532	274998	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 497018	18929 702402	40891 961134	77483 1161783	180030	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 523130	21077 730223	41388 1007309	80014 1224812	190825	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	18033 1878843	82184 2637421	159612 3590650	299276 4318744	701968	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15099 1493463	65973 2120948	128989 2879500	244908 3498687	554716	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 482926	17181 656692	34464 876698	72377 1052048	174909	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1812763	78952 2477279	146268 3404376	273537 4093789	645267	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Lin1	 281980	6785 389132	14742 532255	33334 655290	90716	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 403076	14665 566128	30579 759894	60947 920156	145422	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	20456 2394606	97221 3335314	193744 4540485	368364 5433781	869732	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 410941	13821 589444	31267 801764	57862 972190	143899	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 412234	+++++ 645294	11582 914443	31948 1078237	111944	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	14938 1484651	66440 2018185	128450 2798085	233263 3300531	541396	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 558316	17820 746151	40443 1044451	77952 1262780	204432	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 540777	16847 738184	36696 1015850	73864 1237696	187285	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	21674 2163190	93766 3050835	181163 4179085	341958 5031369	787881	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 439157	16147 611801	32004 851794	61330 1034162	153298	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1756099	76916 2397392	144837 3247343	269989 3862004	640738	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 1021433	50351 1354595	100832 1734240	179309 1995574	410405	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	846333	36164 1197111	71945 1656309	134597 1995696	308669	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	420194	14933 582306	31904 765087	64370 912587	154888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	17441 1793743	77813 2521404	145755 3407943	274386 4089423	654167	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	604612	+++++ 895907	23482 1237510	61404 1510716	183179	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2632132	112082 3641439	217176 4915075	408525 5973232	958316	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1872656	83837 2551173	159126 3447269	300747 4098040	712797	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1873403	83664 2550558	159109 3448157	300330 4098313	713148	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	499680	21820 690639	37716 954869	71432 1180128	176270	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5437 511945	22695 732273	43673 1008748	78885 1243223	193413	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	1024701	44535 1379272	85199 1855286	158544 2198789	376746	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	782066	25749 1104840	48279 1550976	100923 1887978	256594	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1034902	52758 1333023	101178 1701593	185702 1947281	431014	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	24627 2571499	109814 3541931	211634 4883788	379210 5930641	907400	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	23021 2611155	107873 3668041	205838 5048538	385372 5973399	923486	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	2321827	104456 3103682	189166 4317960	357532 5339104	851651	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	3084985	125628 4274689	241816 5790085	462494 6711280	1128322	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	27757 2939759	117629 4141330	227495 5720434	429752 6886228	1030769	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	3302127	79225 4879065	173858 6582390	370349 7784518	1045401	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	29225 3040243	125752 4231894	244306 5883546	449308 7092243	1076907	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1392873	54522 1883743	108346 2588425	201959 3130082	510449	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	2189449	71741 3112481	146575 4353763	290406 5388660	742161	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1912564	84429 2550274	155525 3401045	289028 4022164	715729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	25909 2751256	115498 3850952	215612 5323390	412420 6491519	971819	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23484 2576186	108198 3503959	202629 4924288	367165 6082943	920860	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	3389908	122799 4656799	244936 6423196	478779 7839563	1221939	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	22946 2686975	102373 3866399	208156 5113298	387907 6480913	933314	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	25567 2808908	119266 3843671	203448 5687304	412331 6694482	1030125	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	17604 2610457	99691 3697743	188026 5142509	372623 6390719	916740	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	19891 2780100	107207 3915102	196246 5485906	390347 6743137	976116	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	16609 2319596	81863 3281599	157571 4624309	319869 5792388	799472	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	19544 2324521	89852 3215004	176254 4527038	313554 5603543	822241	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	796287	35181 1117508	69860 1502568	132396 1833026	313654	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	1024980	45224 1426219	91609 1902846	169997 2294307	394111	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	9842 1025531	46822 1410686	86166 1914602	170725 2247081	396790	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	16464 1731667	76640 2389338	147301 3283895	273495 3961270	635874	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	232831	8239 332120	17159 466666	33824 566039	80703	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	21075 1924699	84492 2721603	159645 3729788	290093 4614608	700536	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID (1): CCV 240-194668/2 CCVIS Instrument ID (1): A4HP10

GC Column (1): DB-624 ID: 0.18(mm) Date Analyzed (1): 08/25/2015 09:15

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.89	100.0
Phenol-d5 (Surr)	5.77	100.0
Nitrobenzene-d5 (Surr)	6.60	100.0
Naphthalene	7.26	100.0
2-Fluorobiphenyl (Surr)	8.14	100.0
Acenaphthylene	8.62	100.0
Acenaphthene	8.77	100.0
Fluorene	9.20	100.0
2,4,6-Tribromophenol (Surr)	9.41	100.0
Phenanthrene	10.02	100.0
Anthracene	10.07	100.0
Fluoranthene	11.05	100.0
Pyrene	11.27	100.0
Terphenyl-d14 (Surr)	11.38	100.0
Benzo[a]anthracene	12.63	100.0
Chrysene	12.68	100.0
Benzo[b]fluoranthene	14.19	26.20
Benzo[k]fluoranthene	14.23	100.0
Benzo[a]pyrene	14.71	100.0
Indeno[1,2,3-cd]pyrene	16.53	100.0
Dibenz(a,h)anthracene	16.54	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Lab Sample ID: ICV 240-194072/11 | Calibration Date: 08/21/2015 14:14

Instrument ID: A4HP10 | Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 08/21/2015 13:49

Lab File ID: 50821011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6443	0.5942		9.22	10.0	-7.8	30.0
N-Nitrosodimethylamine	Ave	0.8874	0.7553		8.51	10.0	-14.9	30.0
Pyridine	Ave	1.688	1.642		9.73	10.0	-2.7	30.0
Benzaldehyde	Ave	1.264	1.237	0.0100	19.6	20.0	-2.2	30.0
Phenol	Ave	1.925	1.920	0.8000	9.97	10.0	-0.3	30.0
Aniline	Ave	2.361	2.332		9.88	10.0	-1.2	30.0
Bis(2-chloroethyl)ether	Ave	1.512	1.462	0.7000	9.67	10.0	-3.3	30.0
2-Chlorophenol	Ave	1.476	1.457	0.8000	9.87	10.0	-1.3	30.0
n-Decane	Ave	1.587	1.511		9.52	10.0	-4.8	30.0
1,3-Dichlorobenzene	Ave	1.576	1.543		9.79	10.0	-2.1	30.0
1,4-Dichlorobenzene	Ave	1.602	1.568		9.78	10.0	-2.2	30.0
Benzyl alcohol	Ave	0.9894	0.9883		9.99	10.0	-0.1	30.0
1,2-Dichlorobenzene	Ave	1.516	1.490		9.83	10.0	-1.7	30.0
2-Methylphenol	Ave	1.377	1.392	0.7000	10.1	10.0	1.1	30.0
bis (2-chloroisopropyl) ether	Ave	1.626	1.524		9.37	10.0	-6.3	30.0
Indene	Ave	2.734	2.588		18.9	20.0	-5.3	30.0
3 & 4 Methylphenol	Ave	1.437	1.426		9.92	10.0	-0.8	30.0
N-Nitrosodi-n-propylamine	Ave	0.9586	0.9224	0.5000	9.62	10.0	-3.8	30.0
Acetophenone	Ave	2.092	2.043	0.0100	9.77	10.0	-2.3	30.0
Hexachloroethane	Ave	0.6564	0.6416	0.3000	9.77	10.0	-2.3	30.0
Nitrobenzene	Ave	0.4155	0.4026	0.2000	9.69	10.0	-3.1	30.0
Isophorone	Ave	0.7693	0.7734	0.4000	10.1	10.0	0.5	30.0
2-Nitrophenol	Ave	0.1731	0.1861	0.1000	10.7	10.0	7.5	30.0
2,4-Dimethylphenol	Ave	0.3913	0.3772	0.2000	9.64	10.0	-3.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.4519	0.4303	0.3000	9.52	10.0	-4.8	30.0
Benzoic acid	Lin1		0.2155		20.7	20.0	3.3	30.0
2,4-Dichlorophenol	Ave	0.3090	0.2967	0.2000	9.60	10.0	-4.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3277	0.3159		9.64	10.0	-3.6	30.0
Naphthalene	Ave	1.094	1.061	0.7000	9.70	10.0	-3.0	30.0
4-Chloroaniline	Ave	0.4553	0.4432	0.0100	9.73	10.0	-2.7	30.0
2,6-Dichlorophenol	Ave	0.2979	0.2954		9.92	10.0	-0.8	30.0
Hexachlorobutadiene	Ave	0.1907	0.1884	0.0100	9.88	10.0	-1.2	30.0
Caprolactam	Ave	0.1136	0.1147	0.0100	20.2	20.0	0.9	30.0
4-Chloro-3-methylphenol	Ave	0.3228	0.3298	0.2000	10.2	10.0	2.2	30.0
2-Methylnaphthalene	Ave	0.7304	0.6765	0.4000	9.26	10.0	-7.4	30.0
1-Methylnaphthalene	Ave	0.6327	0.6501		10.3	10.0	2.7	30.0
Hexachlorocyclopentadiene	Ave	0.3355	0.3505	0.0500	10.4	10.0	4.5	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5712	0.5568	0.0100	9.75	10.0	-2.5	30.0
2,4,6-Trichlorophenol	Ave	0.3769	0.3885	0.2000	10.3	10.0	3.1	30.0
2,4,5-Trichlorophenol	Ave	0.3960	0.4032	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: ICV 240-194072/11 Calibration Date: 08/21/2015 14:14

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50821011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.465	1.425	0.0100	9.72	10.0	-2.8	30.0
2-Chloronaphthalene	Ave	1.184	1.137	0.8000	9.61	10.0	-3.9	30.0
2-Nitroaniline	Ave	0.3477	0.3678	0.0100	10.6	10.0	5.8	30.0
Dimethyl phthalate	Ave	1.368	1.355	0.0100	9.91	10.0	-0.9	30.0
1,3-Dinitrobenzene	Lin1		0.2132		9.90	10.0	-1.0	30.0
2,6-Dinitrotoluene	Ave	0.2977	0.3153		10.6	10.0	5.9	30.0
Acenaphthylene	Ave	1.800	1.777	0.9000	9.87	10.0	-1.3	30.0
3-Nitroaniline	Ave	0.3012	0.3236	0.0100	10.7	10.0	7.4	30.0
2,4-Dinitrophenol	Lin1		0.1602	0.0100	18.9	20.0	-5.7	30.0
Acenaphthene	Ave	1.155	1.131	0.9000	9.79	10.0	-2.1	30.0
4-Nitrophenol	Ave	0.1990	0.2169		21.8	20.0	9.0	30.0
2,4-Dinitrotoluene	Ave	0.3800	0.4119	0.2000	10.8	10.0	8.4	30.0
Dibenzofuran	Ave	1.691	1.637	0.8000	9.68	10.0	-3.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3212	0.3354	0.0100	10.4	10.0	4.4	30.0
Diethyl phthalate	Ave	1.329	1.321	0.0100	9.94	10.0	-0.6	30.0
Hexadecane	Ave	0.4966	0.4781		9.63	10.0	-3.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6570	0.6406	0.4000	9.75	10.0	-2.5	30.0
4-Nitroaniline	Ave	0.3070	0.3253	0.0100	10.6	10.0	6.0	30.0
Fluorene	Ave	1.381	1.365	0.9000	9.88	10.0	-1.2	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1431	0.0100	19.4	20.0	-2.9	30.0
N-Nitrosodiphenylamine	Ave	0.6160	0.6259	0.0100	20.3	20.0	1.6	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8868	0.9103		10.3	10.0	2.7	30.0
Azobenzene	Ave	0.8865	0.9103		10.3	10.0	2.7	30.0
4-Bromophenyl phenyl ether	Ave	0.2309	0.2338	0.1000	10.1	10.0	1.3	30.0
Hexachlorobenzene	Ave	0.2524	0.2497	0.1000	9.89	10.0	-1.1	30.0
Atrazine	Ave	0.2375	0.2357	0.0100	19.9	20.0	-0.7	30.0
Pentachlorophenol	Ave	0.1694	0.1918	0.0500	22.6	20.0	13.2	30.0
n-Octadecane	Ave	0.8164	0.7763		9.51	10.0	-4.9	30.0
Phenanthrene	Ave	1.210	1.168	0.7000	9.65	10.0	-3.5	30.0
Anthracene	Ave	1.211	1.231	0.7000	10.2	10.0	1.7	30.0
Carbazole	Ave	1.089	1.084	0.0100	9.95	10.0	-0.5	30.0
Di-n-butyl phthalate	Ave	1.415	1.471	0.0100	10.4	10.0	3.9	30.0
Fluoranthene	Ave	1.369	1.372	0.6000	10.0	10.0	0.2	30.0
Benzidine	Lin1		0.6901		19.4	20.0	-2.8	30.0
Pyrene	Ave	1.284	1.243	0.6000	9.69	10.0	-3.1	30.0
Butyl benzyl phthalate	Ave	0.5676	0.5806	0.0100	10.2	10.0	2.3	30.0
3,3'-Dichlorobenzidine	Ave	0.4335	0.4418	0.0100	20.4	20.0	1.9	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7895	0.7976	0.0100	10.1	10.0	1.0	30.0
Benzo[a]anthracene	Ave	1.161	1.162	0.8000	10.0	10.0	0.0	30.0
Chrysene	Ave	1.074	1.110	0.7000	10.3	10.0	3.3	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Lab Sample ID: ICV 240-194072/11 | Calibration Date: 08/21/2015 14:14

Instrument ID: A4HP10 | Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 08/21/2015 13:49

Lab File ID: 50821011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.500	1.527	0.0100	10.2	10.0	1.8	30.0
Benzo[b]fluoranthene	Ave	1.220	1.194	0.7000	9.79	10.0	-2.1	30.0
Benzo[k]fluoranthene	Ave	1.300	1.275	0.7000	9.80	10.0	-2.0	30.0
Benzo[a]pyrene	Ave	1.153	1.148	0.7000	9.96	10.0	-0.4	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.229	1.232	0.5000	10.0	10.0	0.2	30.0
Dibenz(a,h)anthracene	Ave	1.014	1.059	0.4000	10.4	10.0	4.4	30.0
Benzo[g,h,i]perylene	Ave	1.045	1.057	0.5000	10.1	10.0	1.1	30.0
2-Fluorophenol (Surr)	Ave	1.441	1.506		10.4	10.0	4.5	30.0
Phenol-d5 (Surr)	Ave	1.841	1.929		10.5	10.0	4.8	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4623	0.4835		10.5	10.0	4.6	30.0
2-Fluorobiphenyl (Surr)	Ave	1.343	1.379		10.3	10.0	2.7	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1725	0.1924		11.2	10.0	11.5	30.0
Terphenyl-d14 (Surr)	Ave	0.8428	0.8682		10.3	10.0	3.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6443	0.6141		9.53	10.0	-4.7	20.0
N-Nitrosodimethylamine	Ave	0.8874	0.8450		9.52	10.0	-4.8	20.0
Pyridine	Ave	1.688	1.581		9.37	10.0	-6.3	20.0
Benzaldehyde	Ave	1.264	1.196	0.0100	18.9	20.0	-5.4	20.0
Phenol	Ave	1.925	1.877	0.8000	9.75	10.0	-2.5	20.0
Aniline	Ave	2.361	2.284		9.68	10.0	-3.2	20.0
Bis(2-chloroethyl)ether	Ave	1.512	1.437	0.7000	9.50	10.0	-5.0	20.0
2-Chlorophenol	Ave	1.476	1.486	0.8000	10.1	10.0	0.7	20.0
n-Decane	Ave	1.587	1.523		9.60	10.0	-4.0	20.0
1,3-Dichlorobenzene	Ave	1.576	1.585		10.1	10.0	0.5	20.0
1,4-Dichlorobenzene	Ave	1.602	1.576		9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	0.9894	0.9474		9.58	10.0	-4.2	20.0
1,2-Dichlorobenzene	Ave	1.516	1.515		9.99	10.0	-0.0	20.0
2-Methylphenol	Ave	1.377	1.364	0.7000	9.91	10.0	-0.9	20.0
bis (2-chloroisopropyl) ether	Ave	1.626	1.487		9.14	10.0	-8.6	20.0
Indene	Ave	2.734	2.718		19.9	20.0	-0.6	20.0
3 & 4 Methylphenol	Ave	1.437	1.389		9.66	10.0	-3.4	20.0
N-Nitrosodi-n-propylamine	Ave	0.9586	0.8810	0.5000	9.19	10.0	-8.1	20.0
Acetophenone	Ave	2.092	1.945	0.0100	9.30	10.0	-7.0	20.0
Hexachloroethane	Ave	0.6564	0.6592	0.3000	10.0	10.0	0.4	20.0
Nitrobenzene	Ave	0.4155	0.4122	0.2000	9.92	10.0	-0.8	20.0
Isophorone	Ave	0.7693	0.7287	0.4000	9.47	10.0	-5.3	20.0
2-Nitrophenol	Ave	0.1731	0.1959	0.1000	11.3	10.0	13.1	20.0
2,4-Dimethylphenol	Ave	0.3913	0.3810	0.2000	9.73	10.0	-2.7	20.0
Benzoic acid	Lin1		0.1693		16.6	20.0	-17.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4519	0.4233	0.3000	9.37	10.0	-6.3	20.0
2,4-Dichlorophenol	Ave	0.3090	0.3185	0.2000	10.3	10.0	3.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3277	0.3335		10.2	10.0	1.8	20.0
Naphthalene	Ave	1.094	1.071	0.7000	9.79	10.0	-2.1	20.0
4-Chloroaniline	Ave	0.4553	0.4571	0.0100	10.0	10.0	0.4	20.0
2,6-Dichlorophenol	Ave	0.2979	0.3013		10.1	10.0	1.1	20.0
Hexachlorobutadiene	Ave	0.1907	0.1952	0.0100	10.2	10.0	2.4	20.0
Caprolactam	Ave	0.1136	0.1131	0.0100	19.9	20.0	-0.5	20.0
4-Chloro-3-methylphenol	Ave	0.3228	0.3176	0.2000	9.84	10.0	-1.6	20.0
2-Methylnaphthalene	Ave	0.7304	0.7100	0.4000	9.72	10.0	-2.8	20.0
1-Methylnaphthalene	Ave	0.6327	0.6169		9.75	10.0	-2.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5712	0.5842	0.0100	10.2	10.0	2.3	20.0
Hexachlorocyclopentadiene	Ave	0.3355	0.3674	0.0500	11.0	10.0	9.5	20.0
2,4,6-Trichlorophenol	Ave	0.3769	0.3914	0.2000	10.4	10.0	3.9	20.0
2,4,5-Trichlorophenol	Ave	0.3960	0.4141	0.2000	10.5	10.0	4.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.465	1.475	0.0100	10.1	10.0	0.7	20.0
2-Chloronaphthalene	Ave	1.184	1.182	0.8000	9.99	10.0	-0.1	20.0
2-Nitroaniline	Ave	0.3477	0.3706	0.0100	10.7	10.0	6.6	20.0
Dimethyl phthalate	Ave	1.368	1.387	0.0100	10.1	10.0	1.4	20.0
1,3-Dinitrobenzene	Lin1		0.2174		10.1	10.0	0.8	20.0
2,6-Dinitrotoluene	Ave	0.2977	0.3123		10.5	10.0	4.9	20.0
Acenaphthylene	Ave	1.800	1.860	0.9000	10.3	10.0	3.3	20.0
3-Nitroaniline	Ave	0.3012	0.3158	0.0100	10.5	10.0	4.8	20.0
2,4-Dinitrophenol	Lin1		0.1803	0.0100	21.0	20.0	4.9	20.0
Acenaphthene	Ave	1.155	1.150	0.9000	9.96	10.0	-0.4	20.0
4-Nitrophenol	Ave	0.1990	0.2050		20.6	20.0	3.0	20.0
2,4-Dinitrotoluene	Ave	0.3800	0.4156	0.2000	10.9	10.0	9.4	20.0
Dibenzofuran	Ave	1.691	1.702	0.8000	10.1	10.0	0.7	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3212	0.3293	0.0100	10.3	10.0	2.5	20.0
Diethyl phthalate	Ave	1.329	1.349	0.0100	10.2	10.0	1.5	20.0
Hexadecane	Ave	0.4966	0.4778		9.62	10.0	-3.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.6570	0.6667	0.4000	10.1	10.0	1.5	20.0
4-Nitroaniline	Ave	0.3070	0.3286	0.0100	10.7	10.0	7.1	20.0
Fluorene	Ave	1.381	1.397	0.9000	10.1	10.0	1.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1560	0.0100	21.0	20.0	5.2	20.0
N-Nitrosodiphenylamine	Ave	0.6160	0.6170	0.0100	20.0	20.0	0.2	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8868	0.8671		9.78	10.0	-2.2	20.0
Azobenzene	Ave	0.8865	0.8671		9.78	10.0	-2.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2309	0.2330	0.1000	10.1	10.0	0.9	20.0
Hexachlorobenzene	Ave	0.2524	0.2500	0.1000	9.91	10.0	-0.9	20.0
Atrazine	Ave	0.2375	0.2428	0.0100	20.5	20.0	2.3	20.0
Pentachlorophenol	Ave	0.1694	0.1763	0.0500	20.8	20.0	4.0	20.0
n-Octadecane	Ave	0.8164	0.7683		9.41	10.0	-5.9	20.0
Phenanthrene	Ave	1.210	1.213	0.7000	10.0	10.0	0.3	20.0
Anthracene	Ave	1.211	1.213	0.7000	10.0	10.0	0.2	20.0
Carbazole	Ave	1.089	1.124	0.0100	10.3	10.0	3.1	20.0
Di-n-butyl phthalate	Ave	1.415	1.457	0.0100	10.3	10.0	2.9	20.0
Fluoranthene	Ave	1.369	1.382	0.6000	10.1	10.0	0.9	20.0
Benzidine	Lin1		0.6939		19.5	20.0	-2.3	20.0
Pyrene	Ave	1.284	1.277	0.6000	9.95	10.0	-0.5	20.0
Butyl benzyl phthalate	Ave	0.5676	0.5925	0.0100	10.4	10.0	4.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4335	0.4728	0.0100	21.8	20.0	9.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7895	0.8206	0.0100	10.4	10.0	3.9	20.0
Benzo[a]anthracene	Ave	1.161	1.167	0.8000	10.1	10.0	0.5	20.0
Chrysene	Ave	1.074	1.077	0.7000	10.0	10.0	0.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 | Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 | Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.500	1.576	0.0100	10.5	10.0	5.1	20.0
Benzo[b]fluoranthene	Ave	1.220	1.251	0.7000	10.3	10.0	2.6	20.0
Benzo[k]fluoranthene	Ave	1.300	1.271	0.7000	9.77	10.0	-2.3	20.0
Benzo[a]pyrene	Ave	1.153	1.190	0.7000	10.3	10.0	3.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.229	1.300	0.5000	10.6	10.0	5.8	20.0
Dibenz(a,h)anthracene	Ave	1.014	1.084	0.4000	10.7	10.0	6.8	20.0
Benzo[g,h,i]perylene	Ave	1.045	1.069	0.5000	10.2	10.0	2.3	20.0
2-Fluorophenol (Surr)	Ave	1.441	1.442		10.0	10.0	0.0	20.0
Phenol-d5 (Surr)	Ave	1.841	1.780		9.67	10.0	-3.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4623	0.4654		10.1	10.0	0.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.343	1.349		10.0	10.0	0.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1725	0.1871		10.8	10.0	8.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8428	0.8204		9.73	10.0	-2.7	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194401/12-A

Matrix: Solid | Lab File ID: 50825003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30(g) | Date Analyzed: 08/25/2015 09:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	78		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	21		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-194401/13-A

Matrix: Solid | Lab File ID: 50825004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30(g) | Date Analyzed: 08/25/2015 10:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	538		6.7	0.76
208-96-8	Acenaphthylene	551		6.7	0.35
120-12-7	Anthracene	572		6.7	0.78
56-55-3	Benzo[a]anthracene	586		6.7	0.63
50-32-8	Benzo[a]pyrene	618		6.7	0.64
205-99-2	Benzo[b]fluoranthene	591		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	615		6.7	0.35
207-08-9	Benzo[k]fluoranthene	596		6.7	0.68
218-01-9	Chrysene	610		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	627		6.7	0.66
206-44-0	Fluoranthene	586		6.7	0.55
86-73-7	Fluorene	546		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	624		6.7	0.35
91-20-3	Naphthalene	544		6.7	0.82
85-01-8	Phenanthrene	574		6.7	0.73
129-00-0	Pyrene	576		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	81		20-110
367-12-4	2-Fluorophenol (Surr)	85		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-54590-D-9-B MS

Matrix: Solid | Lab File ID: 50825006.D

Analysis Method: 8270D | Date Collected: 08/20/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.33(g) | Date Analyzed: 08/25/2015 10:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1000

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	397000		8400	950
208-96-8	Acenaphthylene	13100		8400	440
120-12-7	Anthracene	160000		8400	980
56-55-3	Benzo[a]anthracene	279000		8400	790
50-32-8	Benzo[a]pyrene	164000		8400	800
205-99-2	Benzo[b]fluoranthene	301000		8400	740
191-24-2	Benzo[g,h,i]perylene	81400		8400	440
207-08-9	Benzo[k]fluoranthene	98900		8400	850
218-01-9	Chrysene	193000		8400	1400
53-70-3	Dibenz(a,h)anthracene	25800		8400	830
206-44-0	Fluoranthene	1360000		8400	690
86-73-7	Fluorene	299000		8400	660
193-39-5	Indeno[1,2,3-cd]pyrene	74000		8400	440
91-20-3	Naphthalene	262000		8400	1000
85-01-8	Phenanthrene	1350000		8400	920
129-00-0	Pyrene	904000		8400	550

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	0	X	36-110
4165-62-2	Phenol-d5 (Surr)	0	X	26-110
4165-60-0	Nitrobenzene-d5 (Surr)	0	X	20-110
367-12-4	2-Fluorophenol (Surr)	0	X	24-110
321-60-8	2-Fluorobiphenyl (Surr)	0	X	24-110
118-79-6	2,4,6-Tribromophenol (Surr)	0	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-54590-D-9-C MSD

Matrix: Solid | Lab File ID: 50825007.D

Analysis Method: 8270D | Date Collected: 08/20/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.75(g) | Date Analyzed: 08/25/2015 11:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1000

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	580000		8500	970
208-96-8	Acenaphthylene	15900		8500	450
120-12-7	Anthracene	230000		8500	1000
56-55-3	Benzo[a]anthracene	387000		8500	810
50-32-8	Benzo[a]pyrene	241000		8500	820
205-99-2	Benzo[b]fluoranthene	447000		8500	750
191-24-2	Benzo[g,h,i]perylene	123000		8500	450
207-08-9	Benzo[k]fluoranthene	149000		8500	870
218-01-9	Chrysene	289000		8500	1400
53-70-3	Dibenz(a,h)anthracene	35600		8500	840
206-44-0	Fluoranthene	1820000		8500	700
86-73-7	Fluorene	449000		8500	680
193-39-5	Indeno[1,2,3-cd]pyrene	112000		8500	450
91-20-3	Naphthalene	500000		8500	1000
85-01-8	Phenanthrene	1960000		8500	930
129-00-0	Pyrene	1230000		8500	560

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	0	X	36-110
4165-62-2	Phenol-d5 (Surr)	0	X	26-110
4165-60-0	Nitrobenzene-d5 (Surr)	0	X	20-110
367-12-4	2-Fluorophenol (Surr)	0	X	24-110
321-60-8	2-Fluorobiphenyl (Surr)	0	X	24-110
118-79-6	2,4,6-Tribromophenol (Surr)	0	X	10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Start Date: 08/21/2015 10:14

Analysis Batch Number: 194072 End Date: 08/21/2015 21:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-194072/1		08/21/2015 10:14	1	50821001.D	DB-624 0.18(mm)
STD5 240-194072/2 IC		08/21/2015 10:34	1	50821002.D	DB-624 0.18(mm)
STD4 240-194072/3 IC		08/21/2015 10:59	1	50821003.D	DB-624 0.18(mm)
STD3 240-194072/4 IC		08/21/2015 11:23	1	50821004.D	DB-624 0.18(mm)
STD2 240-194072/5 IC		08/21/2015 11:47	1	50821005.D	DB-624 0.18(mm)
STD1 240-194072/6 IC		08/21/2015 12:12	1	50821006.D	DB-624 0.18(mm)
STD9 240-194072/7 IC		08/21/2015 12:36	1	50821007.D	DB-624 0.18(mm)
STD8 240-194072/8 IC		08/21/2015 13:00	1	50821008.D	DB-624 0.18(mm)
STD7 240-194072/9 IC		08/21/2015 13:25	1	50821009.D	DB-624 0.18(mm)
STD6 240-194072/10 ICIS		08/21/2015 13:49	1	50821010.D	DB-624 0.18(mm)
ICV 240-194072/11		08/21/2015 14:14	1	50821011.D	DB-624 0.18(mm)
STD9 240-194072/12 IC		08/21/2015 14:38	1		DB-624 0.18(mm)
STD8 240-194072/13 IC		08/21/2015 15:02	1		DB-624 0.18(mm)
STD7 240-194072/14 IC		08/21/2015 15:27	1		DB-624 0.18(mm)
STD6 240-194072/15 IC		08/21/2015 15:51	1		DB-624 0.18(mm)
STD5 240-194072/16 IC		08/21/2015 16:16	1		DB-624 0.18(mm)
STD4 240-194072/17 IC		08/21/2015 16:40	1		DB-624 0.18(mm)
STD3 240-194072/18 IC		08/21/2015 17:04	1		DB-624 0.18(mm)
STD2 240-194072/19 IC		08/21/2015 17:29	1		DB-624 0.18(mm)
ICV 240-194072/20		08/21/2015 17:53	1		DB-624 0.18(mm)
STD9 240-194072/21 IC		08/21/2015 18:18	1		DB-624 0.18(mm)
STD8 240-194072/22 IC		08/21/2015 18:42	1		DB-624 0.18(mm)
STD7 240-194072/23 IC		08/21/2015 19:06	1		DB-624 0.18(mm)
STD6 240-194072/24 IC		08/21/2015 19:31	1		DB-624 0.18(mm)
STD5 240-194072/25 IC		08/21/2015 19:55	1		DB-624 0.18(mm)
STD4 240-194072/26 IC		08/21/2015 20:20	1		DB-624 0.18(mm)
STD3 240-194072/27 IC		08/21/2015 20:44	1		DB-624 0.18(mm)
STD2 240-194072/28 IC		08/21/2015 21:08	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: A4HP10 Start Date: 08/25/2015 08:50

Analysis Batch Number: 194668 End Date: 08/25/2015 20:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-194668/1		08/25/2015 08:50	1	50825001.D	DB-624 0.18(mm)
CCV 240-194668/2 CCVIS		08/25/2015 09:15	1	50825002.D	DB-624 0.18(mm)
MB 240-194401/12-A		08/25/2015 09:39	1	50825003.D	DB-624 0.18(mm)
LCS 240-194401/13-A		08/25/2015 10:03	1	50825004.D	DB-624 0.18(mm)
ZZZZZ		08/25/2015 10:28	1000		DB-624 0.18(mm)
240-54590-D-9-B MS		08/25/2015 10:52	1000	50825006.D	DB-624 0.18(mm)
240-54590-D-9-C MSD		08/25/2015 11:17	1000	50825007.D	DB-624 0.18(mm)
240-54590-2	D-VS-F1-3-2	08/25/2015 11:41	4	50825008.D	DB-624 0.18(mm)
240-54590-1	D-VS-F1-2-2	08/25/2015 12:06	1	50825009.D	DB-624 0.18(mm)
240-54590-5	D-VB-F1-6-3	08/25/2015 12:30	1	50825010.D	DB-624 0.18(mm)
240-54590-8	D-VB-F1-9-3	08/25/2015 12:55	1	50825011.D	DB-624 0.18(mm)
240-54590-4	D-VB-F1-3-3	08/25/2015 13:19	1	50825012.D	DB-624 0.18(mm)
240-54590-6	D-VB-F1-7-3	08/25/2015 13:44	1	50825013.D	DB-624 0.18(mm)
240-54590-3	D-VB-F1-2-3	08/25/2015 14:08	1	50825014.D	DB-624 0.18(mm)
240-54590-7	D-VB-F1-8-3	08/25/2015 14:33	1	50825015.D	DB-624 0.18(mm)
ZZZZZ		08/25/2015 20:39	2500		DB-624 0.18(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Batch Number: 194401 Batch Start Date: 08/22/15 10:30 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/23/15 02:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00049	exBNASURR W 00026	
240-54590-B-1	D-VS-F1-2-2	3540C, 8270D	T	29.78 g	2 mL			1 mL	
240-54590-B-2	D-VS-F1-3-2	3540C, 8270D	T	29.89 g	2 mL			1 mL	
240-54590-B-3	D-VB-F1-2-3	3540C, 8270D	T	29.94 g	2 mL			1 mL	
240-54590-B-4	D-VB-F1-3-3	3540C, 8270D	T	30.17 g	2 mL			1 mL	
240-54590-B-5	D-VB-F1-6-3	3540C, 8270D	T	30.39 g	2 mL			1 mL	
240-54590-B-6	D-VB-F1-7-3	3540C, 8270D	T	29.66 g	2 mL			1 mL	
240-54590-B-7	D-VB-F1-8-3	3540C, 8270D	T	30.22 g	2 mL			1 mL	
240-54590-B-8	D-VB-F1-9-3	3540C, 8270D	T	29.65 g	2 mL			1 mL	
240-54590-D-9 MS		3540C, 8270D	T	30.33 g	2 mL	1 mL	1 mL	1 mL	
240-54590-D-9 MSD		3540C, 8270D	T	29.75 g	2 mL	1 mL	1 mL	1 mL	
MB 240-194401/12		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-194401/13		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54590-1

SDG No.:

Project: LM MRC Block D Area F1

Client Sample ID	Lab Sample ID
D-VS-F1-2-2	240-54590-1
D-VS-F1-3-2	240-54590-2
D-VB-F1-2-3	240-54590-3
D-VB-F1-3-3	240-54590-4
D-VB-F1-6-3	240-54590-5
D-VB-F1-7-3	240-54590-6
D-VB-F1-8-3	240-54590-7
D-VB-F1-9-3	240-54590-8

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54590-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54590-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/24/2015 08:42 End Date: 08/24/2015 09:12

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/24/2015 08:42 End Date: 08/24/2015 09:12

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			08:42																					
240-54590-1	1	T	08:42	X	X																			
240-54590-2	1	T	08:42	X	X																			
240-54590-3	1	T	08:42	X	X																			
240-54590-4	1	T	08:42	X	X																			
240-54590-5	1	T	08:42	X	X																			
240-54590-6	1	T	08:42	X	X																			
240-54590-7	1	T	08:42	X	X																			
240-54590-7 DU	1	T	08:42	X	X																			
240-54590-8	1	T	08:42	X	X																			
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/24/2015 08:42 End Date: 08/24/2015 09:12

Lab Sample ID	D / F	Type	Time	Analytes																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/24/2015 08:42 End Date: 08/24/2015 09:12

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/24/2015 08:42 End Date: 08/24/2015 09:12

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
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Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Batch Number: 194490 Batch Start Date: 08/24/15 08:42 Batch Analyst: Nolle, Laura C

Batch Method: Moisture Batch End Date: 08/25/15 09:17

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54590-A-1	D-VS-F1-2-2	Moisture	T	4.2475 g	14.1445 g	13.2763 g			
240-54590-A-2	D-VS-F1-3-2	Moisture	T	4.2475 g	11.8545 g	11.0912 g			
240-54590-A-3	D-VB-F1-2-3	Moisture	T	4.2475 g	10.8708 g	9.9825 g			
240-54590-A-4	D-VB-F1-3-3	Moisture	T	4.2475 g	11.4096 g	10.3728 g			
240-54590-A-5	D-VB-F1-6-3	Moisture	T	4.2475 g	12.7556 g	11.6424 g			
240-54590-A-6	D-VB-F1-7-3	Moisture	T	4.2475 g	16.4281 g	14.6058 g			
240-54590-A-7	D-VB-F1-8-3	Moisture	T	4.2475 g	10.6948 g	9.7569 g			
240-54590-A-7 DU	D-VB-F1-8-3	Moisture	T	4.2475 g	8.6134 g	7.9330 g			
240-54590-A-8	D-VB-F1-9-3	Moisture	T	4.2475 g	11.1017 g	10.3495 g			

Batch Notes	
Balance ID	B047 No Unit
Date and Time Samples in Desiccator	8/25/15; 4:35
Date and Time Samples out of Desiccator	8/25/15, 8:52
Date samples were placed in the oven	8/24/15
Oven Temp when samples are put in oven	103.3 Degrees C
Time samples were place in the oven	09:15
Date samples were removed from oven	8/25/15
Oven Temp when samples removed from oven	103.5 Degrees C
Time Samples were removed from oven	04:35
Oven ID	002
ID number of the thermometer	TempGuard Box-C #6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-54590 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

CHAIN OF CUSTODY RECORD

0.8/C1.8

#31

TEST AMERICA, NORTH CANTON OH

PROJECT NO.: 112IC07483

SITE NAME: Lockheed Martin MRC

SAMPLERS (SIGNATURE): Thomas M Dickson / Scott A. Nett

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAHs 8270D 4oz Glass Jar	VOCs 2oz Glass	GRO 2oz Glass	DRO/PCBs/SVOCs 8oz Glass			REMARKS
BLK D Area F1	19 Aug	1600	X		D-VS-F1-2-2	1	1						3 DAY TAT
		1605	X		D-VS-F1-3-2	1	1						
		1630		X	D-VB-F1-2-3	1	1						
		1635		X	D-VB-F1-3-3	1	1						
		1640		X	D-VB-F1-6-3	1	1						
		1645		X	D-VB-F1-7-3	1	1						
		1650		X	D-VB-F1-8-3	1	1						
		1655		X	D-VB-F1-9-3	1	1						
BLK D AREA F1	20 Aug	1200		X	D-WC-F1-01-3	6		2	2	2			5 DAY TAT ; HIGH CONCS!

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Scott Nett	8/20/15 2:30	[signature]			
[signature]	8/20/15 1610	[signature] 8-21-15 915			

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 94560**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 8-21-15 Opened on 8-21-15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-54676-1

Job Description: MRC Soil Remedy Block D

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit

Approved for release.
John McFadden
Project Manager I
8/31/2015 11:27 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/31/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54676-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % soilds value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/25/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12) and D-DUP06-082415 (240-54676-13) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/26/2015 and analyzed on 08/28/2015.

The continuing calibration verification (CCV) for analytical batch 195245 had an Rf for the acid surrogate 2,4,6-tribromophenol below method recommendations. The samples associated with this CCV, D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12), D-DUP06-082415 (240-54676-13), (LCS 240-194855/24-A) and (MB 240-194855/23-A), have only BN analytes, therefore, no corrective action was required.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12) and D-DUP06-082415 (240-54676-13) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/25/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD5 240-192437/2 IC Client Sample ID:

Date Analyzed: 08/08/15 15:32 Lab File ID: 50808002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/08/15 16:08
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/08/15 16:08
Pyridine	3.64	Poor chromatography	ulmanm	08/08/15 16:08
Benzoic acid	7.19	Poor chromatography	ulmanm	08/08/15 16:06

Lab Sample ID: STD4 240-192437/3 IC Client Sample ID:

Date Analyzed: 08/08/15 15:57 Lab File ID: 50808003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:14
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:14
Pyridine	3.63	Poor chromatography	ulmanm	08/09/15 16:14
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:14

Lab Sample ID: STD3 240-192437/4 IC Client Sample ID:

Date Analyzed: 08/08/15 16:23 Lab File ID: 50808004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:17
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:17
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:17
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:17

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD2 240-192437/5 IC Client Sample ID:

Date Analyzed: 08/08/15 16:48 Lab File ID: 50808005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:22
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:22
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:22
Di-n-octyl phthalate	13.10	Poor chromatography	ulmanm	08/09/15 16:22
Benzo[g,h,i]perylene	16.86	Poor chromatography	ulmanm	08/09/15 16:22

Lab Sample ID: STD1 240-192437/6 IC Client Sample ID:

Date Analyzed: 08/08/15 17:14 Lab File ID: 50808006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibenz(a,h)anthracene	16.27	Poor chromatography	ulmanm	08/09/15 16:24
Indeno[1,2,3-cd]pyrene	16.27	Poor chromatography	ulmanm	08/09/15 16:24

Lab Sample ID: STD9 240-192437/7 IC Client Sample ID:

Date Analyzed: 08/08/15 17:39 Lab File ID: 50808007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:30
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:30
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:30
Caprolactam	7.83	Poor chromatography	ulmanm	08/09/15 16:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD8 240-192437/8 IC Client Sample ID:

Date Analyzed: 08/08/15 18:05 Lab File ID: 50808008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:33
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:33
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:33
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:33

Lab Sample ID: STD7 240-192437/9 IC Client Sample ID:

Date Analyzed: 08/08/15 18:31 Lab File ID: 50808009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:36
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:36
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:36
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:36

Lab Sample ID: STD6 240-192437/10 ICIS Client Sample ID:

Date Analyzed: 08/08/15 18:56 Lab File ID: 50808010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:41
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:41
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:41
Benzoic acid	7.21	Poor chromatography	ulmanm	08/09/15 16:41
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: ICV 240-192437/11 Client Sample ID:

Date Analyzed: 08/08/15 19:22 Lab File ID: 50808011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:42
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:48
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:42
4-Chloroaniline	7.53	Poor chromatography	ulmanm	08/09/15 16:48
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:48

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195245

Lab Sample ID: CCV 240-195245/2 CCVIS Client Sample ID:

Date Analyzed: 08/28/15 07:46 Lab File ID: 50828002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.04	Poor chromatography	ulmanm	08/28/15 08:28

Lab Sample ID: 240-54676-1 Client Sample ID: D-VS-F1-4-2

Date Analyzed: 08/28/15 11:24 Lab File ID: 50828008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/28/15 12:31
Benzo[k]fluoranthene	13.42	Poor chromatography	ulmanm	08/28/15 12:31
Indeno[1,2,3-cd]pyrene	15.63	Poor chromatography	ulmanm	08/28/15 12:31
Benzo[g,h,i]perylene	16.16	Poor chromatography	ulmanm	08/28/15 12:31

Lab Sample ID: 240-54676-4 Client Sample ID: D-VB-F1-5-3

Date Analyzed: 08/28/15 11:49 Lab File ID: 50828009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/28/15 13:14

Lab Sample ID: 240-54676-2 Client Sample ID: D-VB-F1-1-3

Date Analyzed: 08/28/15 12:37 Lab File ID: 50828011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/28/15 13:19
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/28/15 13:19
Dibenz(a,h)anthracene	15.64	Poor chromatography	ulmanm	08/28/15 13:19

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195245

Lab Sample ID: 240-54676-8 Client Sample ID: D-VB-F-20-2

Date Analyzed: 08/28/15 13:01 Lab File ID: 50828012.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/28/15 13:59
Benzo[k]fluoranthene	13.42	Poor chromatography	ulmanm	08/28/15 13:59

Lab Sample ID: 240-54676-11 Client Sample ID: D-VB-F-25-2

Date Analyzed: 08/28/15 13:26 Lab File ID: 50828013.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.40	Poor chromatography	ulmanm	08/28/15 14:00
Benzo[k]fluoranthene	13.42	Poor chromatography	ulmanm	08/28/15 14:00
Dibenz(a,h)anthracene	15.63	Poor chromatography	ulmanm	08/28/15 14:00

Lab Sample ID: 240-54676-12 Client Sample ID: D-VS-F-3-1

Date Analyzed: 08/28/15 13:50 Lab File ID: 50828014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.40	Poor chromatography	ulmanm	08/28/15 14:43
Benzo[k]fluoranthene	13.42	Poor chromatography	ulmanm	08/28/15 14:43
Dibenz(a,h)anthracene	15.63	Poor chromatography	ulmanm	08/28/15 14:43

Lab Sample ID: 240-54676-3 Client Sample ID: D-VB-F1-4-3

Date Analyzed: 08/28/15 14:14 Lab File ID: 50828015.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.40	Poor chromatography	ulmanm	08/28/15 14:45
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/28/15 14:45

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195245

Lab Sample ID: 240-54676-5 Client Sample ID: D-VB-F1-10-3

Date Analyzed: 08/28/15 14:38 Lab File ID: 50828016.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/28/15 15:04

Lab Sample ID: 240-54676-7 Client Sample ID: D-VS-F1-3-2

Date Analyzed: 08/28/15 15:03 Lab File ID: 50828017.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.40	Poor chromatography	ulmanm	08/28/15 15:33
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/28/15 15:33
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/28/15 15:33

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54676-1	D-VS-F1-4-2	Solid	08/24/2015 1015	08/25/2015 0930
240-54676-2	D-VB-F1-1-3	Solid	08/24/2015 0910	08/25/2015 0930
240-54676-3	D-VB-F1-4-3	Solid	08/24/2015 0915	08/25/2015 0930
240-54676-4	D-VB-F1-5-3	Solid	08/24/2015 0920	08/25/2015 0930
240-54676-5	D-VB-F1-10-3	Solid	08/24/2015 0925	08/25/2015 0930
240-54676-6	D-DUP05-082415	Solid	08/24/2015 0000	08/25/2015 0930
240-54676-7	D-VS-F1-3-2	Solid	08/24/2015 1400	08/25/2015 0930
240-54676-8	D-VB-F-20-2	Solid	08/24/2015 1200	08/25/2015 0930
240-54676-9	D-VB-F-23-2	Solid	08/24/2015 1205	08/25/2015 0930
240-54676-10	D-VB-F-24-2	Solid	08/24/2015 1210	08/25/2015 0930
240-54676-11	D-VB-F-25-2	Solid	08/24/2015 1215	08/25/2015 0930
240-54676-12	D-VS-F-3-1	Solid	08/24/2015 1130	08/25/2015 0930
240-54676-13	D-DUP06-082415	Solid	08/24/2015 0000	08/25/2015 0930

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54676-1	**D-VS-F1-4-2**					
Benzo[a]anthracene		8.2		7.5	ug/Kg	8270D
Benzo[b]fluoranthene		15		7.5	ug/Kg	8270D
Benzo[g,h,i]perylene		6.0	J	7.5	ug/Kg	8270D
Benzo[k]fluoranthene		10		7.5	ug/Kg	8270D
Chrysene		15		7.5	ug/Kg	8270D
Fluoranthene		19		7.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		4.1	J	7.5	ug/Kg	8270D
Naphthalene		5.3	J	7.5	ug/Kg	8270D
Phenanthrene		6.0	J	7.5	ug/Kg	8270D
Pyrene		16		7.5	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		9.6		0.10	%	Moisture
240-54676-2	**D-VB-F1-1-3**					
Acenaphthene		5.9	J	7.8	ug/Kg	8270D
Acenaphthylene		6.3	J	7.8	ug/Kg	8270D
Anthracene		16		7.8	ug/Kg	8270D
Benzo[a]anthracene		65		7.8	ug/Kg	8270D
Benzo[a]pyrene		72		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		120		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		67		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		38		7.8	ug/Kg	8270D
Chrysene		81		7.8	ug/Kg	8270D
Dibenz(a,h)anthracene		17		7.8	ug/Kg	8270D
Fluoranthene		120		7.8	ug/Kg	8270D
Fluorene		8.6		7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		56		7.8	ug/Kg	8270D
Naphthalene		14		7.8	ug/Kg	8270D
Phenanthrene		52		7.8	ug/Kg	8270D
Pyrene		110		7.8	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54676-3	**D-VB-F1-4-3**					
Acenaphthene		14		7.7	ug/Kg	8270D
Acenaphthylene		9.8		7.7	ug/Kg	8270D
Anthracene		29		7.7	ug/Kg	8270D
Benzo[a]anthracene		87		7.7	ug/Kg	8270D
Benzo[a]pyrene		82		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		110		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		57		7.7	ug/Kg	8270D
Benzo[k]fluoranthene		58		7.7	ug/Kg	8270D
Chrysene		86		7.7	ug/Kg	8270D
Dibenz(a,h)anthracene		13		7.7	ug/Kg	8270D
Fluoranthene		200		7.7	ug/Kg	8270D
Fluorene		16		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		51		7.7	ug/Kg	8270D
Naphthalene		10		7.7	ug/Kg	8270D
Phenanthrene		110		7.7	ug/Kg	8270D
Pyrene		190		7.7	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54676-4	**D-VB-F1-5-3**					
Anthracene		7.5	J	7.9	ug/Kg	8270D
Benzo[a]anthracene		4.3	J	7.9	ug/Kg	8270D
Benzo[b]fluoranthene		5.1	J	7.9	ug/Kg	8270D
Chrysene		5.8	J	7.9	ug/Kg	8270D
Fluoranthene		63		7.9	ug/Kg	8270D
Phenanthrene		5.8	J	7.9	ug/Kg	8270D
Pyrene		48		7.9	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54676-5	**D-VB-F1-10-3**					
Acenaphthene		17		7.9	ug/Kg	8270D
Acenaphthylene		15		7.9	ug/Kg	8270D
Anthracene		60		7.9	ug/Kg	8270D
Benzo[a]anthracene		170		7.9	ug/Kg	8270D
Benzo[a]pyrene		210		7.9	ug/Kg	8270D
Benzo[b]fluoranthene		290		7.9	ug/Kg	8270D
Benzo[g,h,i]perylene		180		7.9	ug/Kg	8270D
Benzo[k]fluoranthene		110		7.9	ug/Kg	8270D
Chrysene		300		7.9	ug/Kg	8270D
Dibenz(a,h)anthracene		51		7.9	ug/Kg	8270D
Fluoranthene		270		7.9	ug/Kg	8270D
Fluorene		18		7.9	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		150		7.9	ug/Kg	8270D
Naphthalene		19		7.9	ug/Kg	8270D
Phenanthrene		150		7.9	ug/Kg	8270D
Pyrene		270		7.9	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54676-6	**D-DUP05-082415**					
Benzo[b]fluoranthene		5.5	J	7.5	ug/Kg	8270D
Chrysene		5.2	J	7.5	ug/Kg	8270D
Fluoranthene		7.0	J	7.5	ug/Kg	8270D
Pyrene		6.8	J	7.5	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54676-7	**D-VS-F1-3-2**					
Acenaphthene		10		8.0	ug/Kg	8270D
Anthracene		9.7		8.0	ug/Kg	8270D
Benzo[a]anthracene		40		8.0	ug/Kg	8270D
Benzo[a]pyrene		44		8.0	ug/Kg	8270D
Benzo[b]fluoranthene		65		8.0	ug/Kg	8270D
Benzo[g,h,i]perylene		31		8.0	ug/Kg	8270D
Benzo[k]fluoranthene		22		8.0	ug/Kg	8270D
Chrysene		48		8.0	ug/Kg	8270D
Fluoranthene		63		8.0	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		26		8.0	ug/Kg	8270D
Naphthalene		6.1	J	8.0	ug/Kg	8270D
Phenanthrene		28		8.0	ug/Kg	8270D
Pyrene		61		8.0	ug/Kg	8270D
Percent Solids		83		0.10	%	Moisture
Percent Moisture		17		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54676-8	**D-VB-F-20-2**					
Benzo[a]anthracene		15		7.9	ug/Kg	8270D
Benzo[a]pyrene		14		7.9	ug/Kg	8270D
Benzo[b]fluoranthene		36		7.9	ug/Kg	8270D
Benzo[g,h,i]perylene		14		7.9	ug/Kg	8270D
Benzo[k]fluoranthene		12		7.9	ug/Kg	8270D
Chrysene		30		7.9	ug/Kg	8270D
Fluoranthene		23		7.9	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		13		7.9	ug/Kg	8270D
Phenanthrene		10		7.9	ug/Kg	8270D
Pyrene		33		7.9	ug/Kg	8270D
Percent Solids		83		0.10	%	Moisture
Percent Moisture		17		0.10	%	Moisture
240-54676-9	**D-VB-F-23-2**					
Percent Solids		82		0.10	%	Moisture
Percent Moisture		18		0.10	%	Moisture
240-54676-10	**D-VB-F-24-2**					
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54676-11	**D-VB-F-25-2**					
Acenaphthene		16		7.5	ug/Kg	8270D
Anthracene		23		7.5	ug/Kg	8270D
Benzo[a]anthracene		75		7.5	ug/Kg	8270D
Benzo[a]pyrene		74		7.5	ug/Kg	8270D
Benzo[b]fluoranthene		100		7.5	ug/Kg	8270D
Benzo[g,h,i]perylene		53		7.5	ug/Kg	8270D
Benzo[k]fluoranthene		39		7.5	ug/Kg	8270D
Chrysene		79		7.5	ug/Kg	8270D
Dibenz(a,h)anthracene		13		7.5	ug/Kg	8270D
Fluoranthene		160		7.5	ug/Kg	8270D
Fluorene		9.8		7.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		43		7.5	ug/Kg	8270D
Naphthalene		5.8	J	7.5	ug/Kg	8270D
Phenanthrene		95		7.5	ug/Kg	8270D
Pyrene		140		7.5	ug/Kg	8270D
Percent Solids		90		0.10	%	Moisture
Percent Moisture		9.9		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54676-12	**D-VS-F-3-1**					
Anthracene		11		8.5	ug/Kg	8270D
Benzo[a]anthracene		75		8.5	ug/Kg	8270D
Benzo[a]pyrene		71		8.5	ug/Kg	8270D
Benzo[b]fluoranthene		110		8.5	ug/Kg	8270D
Benzo[g,h,i]perylene		54		8.5	ug/Kg	8270D
Benzo[k]fluoranthene		46		8.5	ug/Kg	8270D
Chrysene		92		8.5	ug/Kg	8270D
Dibenz(a,h)anthracene		13		8.5	ug/Kg	8270D
Fluoranthene		160		8.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		44		8.5	ug/Kg	8270D
Phenanthrene		44		8.5	ug/Kg	8270D
Pyrene		140		8.5	ug/Kg	8270D
Percent Solids		78		0.10	%	Moisture
Percent Moisture		22		0.10	%	Moisture
240-54676-13	**D-DUP06-082415**					
Pyrene		4.7	J	8.0	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Method	Analyst	Analyst ID
SW846 8270D	Ulman, Mark	MRU
EPA Moisture	Woodward, Bruce	BLW

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VS-F1-4-2

Lab Sample ID: 240-54676-1 Date Sampled: 08/24/2015 1015
Client Matrix: Solid % Moisture: 9.6 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828008.D
Dilution:	1.0			Initial Weight/Volume:	29.68 g
Analysis Date:	08/28/2015 1124			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.85	U	0.85	7.5
Acenaphthylene		0.39	U	0.39	7.5
Anthracene		0.87	U	0.87	7.5
Benzo[a]anthracene		8.2		0.70	7.5
Benzo[a]pyrene		0.72	U	0.72	7.5
Benzo[b]fluoranthene		15		0.66	7.5
Benzo[g,h,i]perylene		6.0	J	0.39	7.5
Benzo[k]fluoranthene		10		0.76	7.5
Chrysene		15		1.2	7.5
Dibenz(a,h)anthracene		0.74	U	0.74	7.5
Fluoranthene		19		0.62	7.5
Fluorene		0.59	U	0.59	7.5
Indeno[1,2,3-cd]pyrene		4.1	J	0.39	7.5
Naphthalene		5.3	J	0.92	7.5
Phenanthrene		6.0	J	0.82	7.5
Pyrene		16		0.49	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	97		36 - 110
Phenol-d5 (Surr)	80		26 - 110
Nitrobenzene-d5 (Surr)	67		20 - 110
2-Fluorophenol (Surr)	74		24 - 110
2-Fluorobiphenyl (Surr)	73		24 - 110
2,4,6-Tribromophenol (Surr)	30		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F1-1-3

Lab Sample ID: 240-54676-2 Date Sampled: 08/24/2015 0910
Client Matrix: Solid % Moisture: 15.2 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828011.D
Dilution:	1.0			Initial Weight/Volume:	30.34 g
Analysis Date:	08/28/2015 1237			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		5.9	J	0.89	7.8
Acenaphthylene		6.3	J	0.41	7.8
Anthracene		16		0.91	7.8
Benzo[a]anthracene		65		0.74	7.8
Benzo[a]pyrene		72		0.75	7.8
Benzo[b]fluoranthene		120		0.69	7.8
Benzo[g,h,i]perylene		67		0.41	7.8
Benzo[k]fluoranthene		38		0.79	7.8
Chrysene		81		1.3	7.8
Dibenz(a,h)anthracene		17		0.77	7.8
Fluoranthene		120		0.64	7.8
Fluorene		8.6		0.62	7.8
Indeno[1,2,3-cd]pyrene		56		0.41	7.8
Naphthalene		14		0.96	7.8
Phenanthrene		52		0.85	7.8
Pyrene		110		0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	82		36 - 110
Phenol-d5 (Surr)	83		26 - 110
Nitrobenzene-d5 (Surr)	74		20 - 110
2-Fluorophenol (Surr)	81		24 - 110
2-Fluorobiphenyl (Surr)	73		24 - 110
2,4,6-Tribromophenol (Surr)	15		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F1-4-3

Lab Sample ID: 240-54676-3 Date Sampled: 08/24/2015 0915
Client Matrix: Solid % Moisture: 14.1 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828015.D
Dilution:	1.0			Initial Weight/Volume:	30.07 g
Analysis Date:	08/28/2015 1414			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		14		0.88	7.7
Acenaphthylene		9.8		0.41	7.7
Anthracene		29		0.91	7.7
Benzo[a]anthracene		87		0.73	7.7
Benzo[a]pyrene		82		0.74	7.7
Benzo[b]fluoranthene		110		0.69	7.7
Benzo[g,h,i]perylene		57		0.41	7.7
Benzo[k]fluoranthene		58		0.79	7.7
Chrysene		86		1.3	7.7
Dibenz(a,h)anthracene		13		0.77	7.7
Fluoranthene		200		0.64	7.7
Fluorene		16		0.62	7.7
Indeno[1,2,3-cd]pyrene		51		0.41	7.7
Naphthalene		10		0.95	7.7
Phenanthrene		110		0.85	7.7
Pyrene		190		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	91		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	69		20 - 110
2-Fluorophenol (Surr)	78		24 - 110
2-Fluorobiphenyl (Surr)	74		24 - 110
2,4,6-Tribromophenol (Surr)	58		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F1-5-3

Lab Sample ID: 240-54676-4 Date Sampled: 08/24/2015 0920
Client Matrix: Solid % Moisture: 15.7 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828009.D
Dilution:	1.0			Initial Weight/Volume:	30.05 g
Analysis Date:	08/28/2015 1149			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.41	U	0.41	7.9
Anthracene		7.5	J	0.92	7.9
Benzo[a]anthracene		4.3	J	0.75	7.9
Benzo[a]pyrene		0.76	U	0.76	7.9
Benzo[b]fluoranthene		5.1	J	0.70	7.9
Benzo[g,h,i]perylene		0.41	U	0.41	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		5.8	J	1.3	7.9
Dibenz(a,h)anthracene		0.78	U	0.78	7.9
Fluoranthene		63		0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.9
Naphthalene		0.97	U	0.97	7.9
Phenanthrene		5.8	J	0.86	7.9
Pyrene		48		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	88		36 - 110
Phenol-d5 (Surr)	90		26 - 110
Nitrobenzene-d5 (Surr)	75		20 - 110
2-Fluorophenol (Surr)	86		24 - 110
2-Fluorobiphenyl (Surr)	75		24 - 110
2,4,6-Tribromophenol (Surr)	41		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F1-10-3

Lab Sample ID: 240-54676-5 Date Sampled: 08/24/2015 0925
Client Matrix: Solid % Moisture: 14.1 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828016.D
Dilution:	1.0			Initial Weight/Volume:	29.53 g
Analysis Date:	08/28/2015 1438			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		17		0.90	7.9
Acenaphthylene		15		0.41	7.9
Anthracene		60		0.92	7.9
Benzo[a]anthracene		170		0.74	7.9
Benzo[a]pyrene		210		0.76	7.9
Benzo[b]fluoranthene		290		0.70	7.9
Benzo[g,h,i]perylene		180		0.41	7.9
Benzo[k]fluoranthene		110		0.80	7.9
Chrysene		300		1.3	7.9
Dibenz(a,h)anthracene		51		0.78	7.9
Fluoranthene		270		0.65	7.9
Fluorene		18		0.63	7.9
Indeno[1,2,3-cd]pyrene		150		0.41	7.9
Naphthalene		19		0.97	7.9
Phenanthrene		150		0.86	7.9
Pyrene		270		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	91		36 - 110
Phenol-d5 (Surr)	82		26 - 110
Nitrobenzene-d5 (Surr)	64		20 - 110
2-Fluorophenol (Surr)	74		24 - 110
2-Fluorobiphenyl (Surr)	76		24 - 110
2,4,6-Tribromophenol (Surr)	38		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-DUP05-082415

Lab Sample ID: 240-54676-6 Date Sampled: 08/24/2015 0000
Client Matrix: Solid % Moisture: 11.5 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828010.D
Dilution:	1.0			Initial Weight/Volume:	30.32 g
Analysis Date:	08/28/2015 1213			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.85	U	0.85	7.5
Acenaphthylene		0.39	U	0.39	7.5
Anthracene		0.87	U	0.87	7.5
Benzo[a]anthracene		0.70	U	0.70	7.5
Benzo[a]pyrene		0.72	U	0.72	7.5
Benzo[b]fluoranthene		5.5	J	0.66	7.5
Benzo[g,h,i]perylene		0.39	U	0.39	7.5
Benzo[k]fluoranthene		0.76	U	0.76	7.5
Chrysene		5.2	J	1.2	7.5
Dibenz(a,h)anthracene		0.74	U	0.74	7.5
Fluoranthene		7.0	J	0.62	7.5
Fluorene		0.59	U	0.59	7.5
Indeno[1,2,3-cd]pyrene		0.39	U	0.39	7.5
Naphthalene		0.92	U	0.92	7.5
Phenanthrene		0.82	U	0.82	7.5
Pyrene		6.8	J	0.49	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	91		36 - 110
Phenol-d5 (Surr)	75		26 - 110
Nitrobenzene-d5 (Surr)	66		20 - 110
2-Fluorophenol (Surr)	75		24 - 110
2-Fluorobiphenyl (Surr)	69		24 - 110
2,4,6-Tribromophenol (Surr)	23		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VS-F1-3-2

Lab Sample ID: 240-54676-7 Date Sampled: 08/24/2015 1400
Client Matrix: Solid % Moisture: 17.5 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828017.D
Dilution:	1.0			Initial Weight/Volume:	30.49 g
Analysis Date:	08/28/2015 1503			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10		0.91	8.0
Acenaphthylene		0.42	U	0.42	8.0
Anthracene		9.7		0.93	8.0
Benzo[a]anthracene		40		0.75	8.0
Benzo[a]pyrene		44		0.76	8.0
Benzo[b]fluoranthene		65		0.70	8.0
Benzo[g,h,i]perylene		31		0.42	8.0
Benzo[k]fluoranthene		22		0.81	8.0
Chrysene		48		1.3	8.0
Dibenz(a,h)anthracene		0.79	U	0.79	8.0
Fluoranthene		63		0.66	8.0
Fluorene		0.63	U	0.63	8.0
Indeno[1,2,3-cd]pyrene		26		0.42	8.0
Naphthalene		6.1	J	0.98	8.0
Phenanthrene		28		0.87	8.0
Pyrene		61		0.52	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	86		36 - 110
Phenol-d5 (Surr)	82		26 - 110
Nitrobenzene-d5 (Surr)	65		20 - 110
2-Fluorophenol (Surr)	75		24 - 110
2-Fluorobiphenyl (Surr)	70		24 - 110
2,4,6-Tribromophenol (Surr)	46		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F-20-2

Lab Sample ID: 240-54676-8 Date Sampled: 08/24/2015 1200
Client Matrix: Solid % Moisture: 16.6 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828012.D
Dilution:	1.0			Initial Weight/Volume:	30.49 g
Analysis Date:	08/28/2015 1301			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.41	U	0.41	7.9
Anthracene		0.92	U	0.92	7.9
Benzo[a]anthracene		15		0.74	7.9
Benzo[a]pyrene		14		0.76	7.9
Benzo[b]fluoranthene		36		0.70	7.9
Benzo[g,h,i]perylene		14		0.41	7.9
Benzo[k]fluoranthene		12		0.80	7.9
Chrysene		30		1.3	7.9
Dibenz(a,h)anthracene		0.78	U	0.78	7.9
Fluoranthene		23		0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		13		0.41	7.9
Naphthalene		0.97	U	0.97	7.9
Phenanthrene		10		0.86	7.9
Pyrene		33		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	89		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	73		20 - 110
2-Fluorophenol (Surr)	80		24 - 110
2-Fluorobiphenyl (Surr)	73		24 - 110
2,4,6-Tribromophenol (Surr)	22		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: **D-VB-F-23-2**

Lab Sample ID: 240-54676-9 Date Sampled: 08/24/2015 1205
Client Matrix: Solid % Moisture: 18.1 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828006.D
Dilution:	1.0			Initial Weight/Volume:	29.99 g
Analysis Date:	08/28/2015 1036			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.93	U	0.93	8.1
Acenaphthylene		0.43	U	0.43	8.1
Anthracene		0.95	U	0.95	8.1
Benzo[a]anthracene		0.77	U	0.77	8.1
Benzo[a]pyrene		0.78	U	0.78	8.1
Benzo[b]fluoranthene		0.72	U	0.72	8.1
Benzo[g,h,i]perylene		0.43	U	0.43	8.1
Benzo[k]fluoranthene		0.83	U	0.83	8.1
Chrysene		1.3	U	1.3	8.1
Dibenz(a,h)anthracene		0.81	U	0.81	8.1
Fluoranthene		0.67	U	0.67	8.1
Fluorene		0.65	U	0.65	8.1
Indeno[1,2,3-cd]pyrene		0.43	U	0.43	8.1
Naphthalene		1.0	U	1.0	8.1
Phenanthrene		0.89	U	0.89	8.1
Pyrene		0.54	U	0.54	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	96		36 - 110
Phenol-d5 (Surr)	86		26 - 110
Nitrobenzene-d5 (Surr)	70		20 - 110
2-Fluorophenol (Surr)	82		24 - 110
2-Fluorobiphenyl (Surr)	71		24 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F-24-2

Lab Sample ID: 240-54676-10 Date Sampled: 08/24/2015 1210
Client Matrix: Solid % Moisture: 15.0 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828007.D
Dilution:	1.0			Initial Weight/Volume:	30.27 g
Analysis Date:	08/28/2015 1100			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.89	U	0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		0.91	U	0.91	7.8
Benzo[a]anthracene		0.73	U	0.73	7.8
Benzo[a]pyrene		0.75	U	0.75	7.8
Benzo[b]fluoranthene		0.69	U	0.69	7.8
Benzo[g,h,i]perylene		0.41	U	0.41	7.8
Benzo[k]fluoranthene		0.79	U	0.79	7.8
Chrysene		1.3	U	1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		0.64	U	0.64	7.8
Fluorene		0.62	U	0.62	7.8
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.8
Naphthalene		0.96	U	0.96	7.8
Phenanthrene		0.85	U	0.85	7.8
Pyrene		0.51	U	0.51	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	96		36 - 110
Phenol-d5 (Surr)	91		26 - 110
Nitrobenzene-d5 (Surr)	79		20 - 110
2-Fluorophenol (Surr)	85		24 - 110
2-Fluorobiphenyl (Surr)	80		24 - 110
2,4,6-Tribromophenol (Surr)	40		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VB-F-25-2

Lab Sample ID: 240-54676-11 Date Sampled: 08/24/2015 1215
Client Matrix: Solid % Moisture: 9.9 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828013.D
Dilution:	1.0			Initial Weight/Volume:	29.74 g
Analysis Date:	08/28/2015 1326			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		16		0.85	7.5
Acenaphthylene		0.39	U	0.39	7.5
Anthracene		23		0.87	7.5
Benzo[a]anthracene		75		0.71	7.5
Benzo[a]pyrene		74		0.72	7.5
Benzo[b]fluoranthene		100		0.66	7.5
Benzo[g,h,i]perylene		53		0.39	7.5
Benzo[k]fluoranthene		39		0.76	7.5
Chrysene		79		1.2	7.5
Dibenz(a,h)anthracene		13		0.74	7.5
Fluoranthene		160		0.62	7.5
Fluorene		9.8		0.59	7.5
Indeno[1,2,3-cd]pyrene		43		0.39	7.5
Naphthalene		5.8	J	0.92	7.5
Phenanthrene		95		0.82	7.5
Pyrene		140		0.49	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	91		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	72		20 - 110
2-Fluorophenol (Surr)	83		24 - 110
2-Fluorobiphenyl (Surr)	76		24 - 110
2,4,6-Tribromophenol (Surr)	26		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-VS-F-3-1

Lab Sample ID: 240-54676-12 Date Sampled: 08/24/2015 1130
Client Matrix: Solid % Moisture: 21.9 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828014.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	08/28/2015 1350			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.97	U	0.97	8.5
Acenaphthylene		0.45	U	0.45	8.5
Anthracene		11		1.0	8.5
Benzo[a]anthracene		75		0.80	8.5
Benzo[a]pyrene		71		0.82	8.5
Benzo[b]fluoranthene		110		0.75	8.5
Benzo[g,h,i]perylene		54		0.45	8.5
Benzo[k]fluoranthene		46		0.87	8.5
Chrysene		92		1.4	8.5
Dibenz(a,h)anthracene		13		0.84	8.5
Fluoranthene		160		0.70	8.5
Fluorene		0.68	U	0.68	8.5
Indeno[1,2,3-cd]pyrene		44		0.45	8.5
Naphthalene		1.0	U	1.0	8.5
Phenanthrene		44		0.93	8.5
Pyrene		140		0.56	8.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	92		36 - 110
Phenol-d5 (Surr)	79		26 - 110
Nitrobenzene-d5 (Surr)	69		20 - 110
2-Fluorophenol (Surr)	81		24 - 110
2-Fluorobiphenyl (Surr)	74		24 - 110
2,4,6-Tribromophenol (Surr)	36		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Client Sample ID: D-DUP06-082415

Lab Sample ID: 240-54676-13 Date Sampled: 08/24/2015 0000
Client Matrix: Solid % Moisture: 15.9 Date Received: 08/25/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-194855	Lab File ID:	50828005.D
Dilution:	1.0			Initial Weight/Volume:	29.57 g
Analysis Date:	08/28/2015 1011			Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.92	U	0.92	8.0
Acenaphthylene		0.42	U	0.42	8.0
Anthracene		0.94	U	0.94	8.0
Benzo[a]anthracene		0.76	U	0.76	8.0
Benzo[a]pyrene		0.77	U	0.77	8.0
Benzo[b]fluoranthene		0.71	U	0.71	8.0
Benzo[g,h,i]perylene		0.42	U	0.42	8.0
Benzo[k]fluoranthene		0.82	U	0.82	8.0
Chrysene		1.3	U	1.3	8.0
Dibenz(a,h)anthracene		0.80	U	0.80	8.0
Fluoranthene		0.66	U	0.66	8.0
Fluorene		0.64	U	0.64	8.0
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	8.0
Naphthalene		0.99	U	0.99	8.0
Phenanthrene		0.88	U	0.88	8.0
Pyrene		4.7	J	0.53	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	92		36 - 110
Phenol-d5 (Surr)	84		26 - 110
Nitrobenzene-d5 (Surr)	64		20 - 110
2-Fluorophenol (Surr)	75		24 - 110
2-Fluorobiphenyl (Surr)	74		24 - 110
2,4,6-Tribromophenol (Surr)	37		10 - 110

General Chemistry

Client Sample ID: **D-VS-F1-4-2**

Lab Sample ID: 240-54676-1 Date Sampled: 08/24/2015 1015
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	9.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-1-3**

Lab Sample ID: 240-54676-2 Date Sampled: 08/24/2015 0910
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-4-3**

Lab Sample ID: 240-54676-3 Date Sampled: 08/24/2015 0915
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-5-3**

Lab Sample ID: 240-54676-4 Date Sampled: 08/24/2015 0920
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F1-10-3**

Lab Sample ID: 240-54676-5 Date Sampled: 08/24/2015 0925
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP05-082415**

Lab Sample ID: 240-54676-6 Date Sampled: 08/24/2015 0000
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-F1-3-2**

Lab Sample ID: 240-54676-7 Date Sampled: 08/24/2015 1400
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-20-2**

Lab Sample ID: 240-54676-8 Date Sampled: 08/24/2015 1200
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-23-2**

Lab Sample ID: 240-54676-9 Date Sampled: 08/24/2015 1205
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-24-2**

Lab Sample ID: 240-54676-10 Date Sampled: 08/24/2015 1210
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-25-2**

Lab Sample ID: 240-54676-11 Date Sampled: 08/24/2015 1215
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	9.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-F-3-1**

Lab Sample ID: 240-54676-12 Date Sampled: 08/24/2015 1130
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	78		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	22		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP06-082415**

Lab Sample ID: 240-54676-13 Date Sampled: 08/24/2015 0000
Client Matrix: Solid Date Received: 08/25/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194755	Analysis Date: 08/25/2015 1355						DryWt Corrected: N

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54676-1	D-VS-F1-4-2	74	80	67	73	30	97
240-54676-2	D-VB-F1-1-3	81	83	74	73	15	82
240-54676-3	D-VB-F1-4-3	78	85	69	74	58	91
240-54676-4	D-VB-F1-5-3	86	90	75	75	41	88
240-54676-5	D-VB-F1-10-3	74	82	64	76	38	91
240-54676-6	D-DUP05-082415	75	75	66	69	23	91
240-54676-7	D-VS-F1-3-2	75	82	65	70	46	86
240-54676-8	D-VB-F-20-2	80	85	73	73	22	89
240-54676-9	D-VB-F-23-2	82	86	70	71	44	96
240-54676-10	D-VB-F-24-2	85	91	79	80	40	96
240-54676-11	D-VB-F-25-2	83	85	72	76	26	91
240-54676-12	D-VS-F-3-1	81	79	69	74	36	92
240-54676-13	D-DUP06-082415	75	84	64	74	37	92
MB 240-194855/23-A		83	90	79	80	32	99
LCS 240-194855/24-A		86	89	81	75	56	90

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Method Blank - Batch: 240-194855

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-194855/23-A	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-194855	Lab File ID:	50828003.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/28/2015 0835	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	99	36 - 110
Phenol-d5 (Surr)	90	26 - 110
Nitrobenzene-d5 (Surr)	79	20 - 110
2-Fluorophenol (Surr)	83	24 - 110
2-Fluorobiphenyl (Surr)	80	24 - 110
2,4,6-Tribromophenol (Surr)	32	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Control Sample - Batch: 240-194855

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-194855/24-A	Analysis Batch:	240-195245	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-194855	Lab File ID:	50828004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/28/2015 0859	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/26/2015 0852			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	515	77	38 - 110	
Acenaphthylene	667	535	80	40 - 110	
Anthracene	667	538	81	48 - 110	
Benzo[a]anthracene	667	544	82	50 - 110	
Benzo[a]pyrene	667	578	87	44 - 110	
Benzo[b]fluoranthene	667	573	86	43 - 110	
Benzo[g,h,i]perylene	667	610	92	51 - 110	
Benzo[k]fluoranthene	667	619	93	38 - 105	
Chrysene	667	566	85	50 - 110	
Dibenz(a,h)anthracene	667	632	95	51 - 110	
Fluoranthene	667	561	84	51 - 110	
Fluorene	667	509	76	46 - 110	
Indeno[1,2,3-cd]pyrene	667	610	91	50 - 110	
Naphthalene	667	522	78	36 - 110	
Phenanthrene	667	534	80	49 - 110	
Pyrene	667	597	90	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	90	36 - 110
Phenol-d5 (Surr)	89	26 - 110
Nitrobenzene-d5 (Surr)	81	20 - 110
2-Fluorophenol (Surr)	86	24 - 110
2-Fluorobiphenyl (Surr)	75	24 - 110
2,4,6-Tribromophenol (Surr)	56	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Duplicate - Batch: 240-194755

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54676-8	Analysis Batch:	240-194755	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/25/2015 1355	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	83	84	0.9	20	
Percent Moisture	17	16	5	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Tetra Tech, Inc. Job Number: 240-54676-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-194855					
LCS 240-194855/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-194855/23-A	Method Blank	T	Solid	3540C	
240-54676-1	D-VS-F1-4-2	T	Solid	3540C	
240-54676-2	D-VB-F1-1-3	T	Solid	3540C	
240-54676-3	D-VB-F1-4-3	T	Solid	3540C	
240-54676-4	D-VB-F1-5-3	T	Solid	3540C	
240-54676-5	D-VB-F1-10-3	T	Solid	3540C	
240-54676-6	D-DUP05-082415	T	Solid	3540C	
240-54676-7	D-VS-F1-3-2	T	Solid	3540C	
240-54676-8	D-VB-F-20-2	T	Solid	3540C	
240-54676-9	D-VB-F-23-2	T	Solid	3540C	
240-54676-10	D-VB-F-24-2	T	Solid	3540C	
240-54676-11	D-VB-F-25-2	T	Solid	3540C	
240-54676-12	D-VS-F-3-1	T	Solid	3540C	
240-54676-13	D-DUP06-082415	T	Solid	3540C	
Analysis Batch:240-195245					
LCS 240-194855/24-A	Lab Control Sample	T	Solid	8270D	240-194855
MB 240-194855/23-A	Method Blank	T	Solid	8270D	240-194855
240-54676-1	D-VS-F1-4-2	T	Solid	8270D	240-194855
240-54676-2	D-VB-F1-1-3	T	Solid	8270D	240-194855
240-54676-3	D-VB-F1-4-3	T	Solid	8270D	240-194855
240-54676-4	D-VB-F1-5-3	T	Solid	8270D	240-194855
240-54676-5	D-VB-F1-10-3	T	Solid	8270D	240-194855
240-54676-6	D-DUP05-082415	T	Solid	8270D	240-194855
240-54676-7	D-VS-F1-3-2	T	Solid	8270D	240-194855
240-54676-8	D-VB-F-20-2	T	Solid	8270D	240-194855
240-54676-9	D-VB-F-23-2	T	Solid	8270D	240-194855
240-54676-10	D-VB-F-24-2	T	Solid	8270D	240-194855
240-54676-11	D-VB-F-25-2	T	Solid	8270D	240-194855
240-54676-12	D-VS-F-3-1	T	Solid	8270D	240-194855
240-54676-13	D-DUP06-082415	T	Solid	8270D	240-194855

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54676-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-194755					
240-54676-1	D-VS-F1-4-2	T	Solid	Moisture	
240-54676-2	D-VB-F1-1-3	T	Solid	Moisture	
240-54676-3	D-VB-F1-4-3	T	Solid	Moisture	
240-54676-4	D-VB-F1-5-3	T	Solid	Moisture	
240-54676-5	D-VB-F1-10-3	T	Solid	Moisture	
240-54676-6	D-DUP05-082415	T	Solid	Moisture	
240-54676-7	D-VS-F1-3-2	T	Solid	Moisture	
240-54676-8	D-VB-F-20-2	T	Solid	Moisture	
240-54676-8DU	Duplicate	T	Solid	Moisture	
240-54676-9	D-VB-F-23-2	T	Solid	Moisture	
240-54676-10	D-VB-F-24-2	T	Solid	Moisture	
240-54676-11	D-VB-F-25-2	T	Solid	Moisture	
240-54676-12	D-VS-F-3-1	T	Solid	Moisture	
240-54676-13	D-DUP06-082415	T	Solid	Moisture	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Laboratory Chronicle

Lab ID: 240-54676-1 **Client ID: D-VS-F1-4-2**

Sample Date/Time: 08/24/2015 10:15 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-1-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-1-A		240-195245	240-194855	08/28/2015 11:24	1	TAL CAN	MRU
A:Moisture	240-54676-A-1		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-2 **Client ID: D-VB-F1-1-3**

Sample Date/Time: 08/24/2015 09:10 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-2-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-2-A		240-195245	240-194855	08/28/2015 12:37	1	TAL CAN	MRU
A:Moisture	240-54676-A-2		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-3 **Client ID: D-VB-F1-4-3**

Sample Date/Time: 08/24/2015 09:15 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-3-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-3-A		240-195245	240-194855	08/28/2015 14:14	1	TAL CAN	MRU
A:Moisture	240-54676-A-3		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-4 **Client ID: D-VB-F1-5-3**

Sample Date/Time: 08/24/2015 09:20 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-4-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-4-A		240-195245	240-194855	08/28/2015 11:49	1	TAL CAN	MRU
A:Moisture	240-54676-A-4		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-5 **Client ID: D-VB-F1-10-3**

Sample Date/Time: 08/24/2015 09:25 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-5-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-5-A		240-195245	240-194855	08/28/2015 14:38	1	TAL CAN	MRU
A:Moisture	240-54676-A-5		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Laboratory Chronicle

Lab ID: 240-54676-6 **Client ID: D-DUP05-082415**

Sample Date/Time: 08/24/2015 00:00 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-6-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-6-A		240-195245	240-194855	08/28/2015 12:13	1	TAL CAN	MRU
A:Moisture	240-54676-A-6		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-7 **Client ID: D-VS-F1-3-2**

Sample Date/Time: 08/24/2015 14:00 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-7-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-7-A		240-195245	240-194855	08/28/2015 15:03	1	TAL CAN	MRU
A:Moisture	240-54676-A-7		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-8 **Client ID: D-VB-F-20-2**

Sample Date/Time: 08/24/2015 12:00 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-8-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-8-A		240-195245	240-194855	08/28/2015 13:01	1	TAL CAN	MRU
A:Moisture	240-54676-A-8		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-8 DU **Client ID: D-VB-F-20-2**

Sample Date/Time: 08/24/2015 12:00 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54676-A-8 DU		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-9 **Client ID: D-VB-F-23-2**

Sample Date/Time: 08/24/2015 12:05 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-9-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-9-A		240-195245	240-194855	08/28/2015 10:36	1	TAL CAN	MRU
A:Moisture	240-54676-A-9		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Laboratory Chronicle

Lab ID: 240-54676-10 **Client ID: D-VB-F-24-2**

Sample Date/Time: 08/24/2015 12:10 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-10-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-10-A		240-195245	240-194855	08/28/2015 11:00	1	TAL CAN	MRU
A:Moisture	240-54676-A-10		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-11 **Client ID: D-VB-F-25-2**

Sample Date/Time: 08/24/2015 12:15 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-11-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-11-A		240-195245	240-194855	08/28/2015 13:26	1	TAL CAN	MRU
A:Moisture	240-54676-A-11		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-12 **Client ID: D-VS-F-3-1**

Sample Date/Time: 08/24/2015 11:30 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-12-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-12-A		240-195245	240-194855	08/28/2015 13:50	1	TAL CAN	MRU
A:Moisture	240-54676-A-12		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: 240-54676-13 **Client ID: D-DUP06-082415**

Sample Date/Time: 08/24/2015 00:00 Received Date/Time: 08/25/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54676-B-13-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	240-54676-B-13-A		240-195245	240-194855	08/28/2015 10:11	1	TAL CAN	MRU
A:Moisture	240-54676-A-13		240-194755		08/25/2015 13:55	1	TAL CAN	BLW

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	MB 240-194855/23-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	MB 240-194855/23-A		240-195245	240-194855	08/28/2015 08:35	1	TAL CAN	MRU

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	LCS 240-194855/24-A		240-195245	240-194855	08/26/2015 08:52	1	TAL CAN	SDE
A:8270D	LCS 240-194855/24-A		240-195245	240-194855	08/28/2015 08:59	1	TAL CAN	MRU

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
exBENZALDEHYD_00028	08/31/16	08/17/15	MEOH, Lot 147358	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00049	08/31/16	08/18/15	MEOH, Lot 147358	200 mL	exLIST1_S1_00004	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.exLIST1_S1_00004	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16	Restek, Lot A0107943			(Purchased Reagent)		Benzoic acid	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54676-1
Project/Site: MRC Soil Remedy Block D

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	T104704517-15-5
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F1-4-2	240-54676-1	74	80	67	73	30	97
D-VB-F1-1-3	240-54676-2	81	83	74	73	15	82
D-VB-F1-4-3	240-54676-3	78	85	69	74	58	91
D-VB-F1-5-3	240-54676-4	86	90	75	75	41	88
D-VB-F1-10-3	240-54676-5	74	82	64	76	38	91
D-DUP05-082415	240-54676-6	75	75	66	69	23	91
D-VS-F1-3-2	240-54676-7	75	82	65	70	46	86
D-VB-F-20-2	240-54676-8	80	85	73	73	22	89
D-VB-F-23-2	240-54676-9	82	86	70	71	44	96
D-VB-F-24-2	240-54676-10	85	91	79	80	40	96
D-VB-F-25-2	240-54676-11	83	85	72	76	26	91
D-VS-F-3-1	240-54676-12	81	79	69	74	36	92
D-DUP06-082415	240-54676-13	75	84	64	74	37	92
	MB 240-194855/23-A	83	90	79	80	32	99
	LCS 240-194855/24-A	86	89	81	75	56	90

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50828004.D

Lab ID: LCS 240-194855/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	515	77	38-110	
Acenaphthylene	667	535	80	40-110	
Anthracene	667	538	81	48-110	
Benzo[a]anthracene	667	544	82	50-110	
Benzo[a]pyrene	667	578	87	44-110	
Benzo[b]fluoranthene	667	573	86	43-110	
Benzo[g,h,i]perylene	667	610	92	51-110	
Benzo[k]fluoranthene	667	619	93	38-105	
Chrysene	667	566	85	50-110	
Dibenz(a,h)anthracene	667	632	95	51-110	
Fluoranthene	667	561	84	51-110	
Fluorene	667	509	76	46-110	
Indeno[1,2,3-cd]pyrene	667	610	91	50-110	
Naphthalene	667	522	78	36-110	
Phenanthrene	667	534	80	49-110	
Pyrene	667	597	90	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50828003.D Lab Sample ID: MB 240-194855/23-A

Matrix: Solid Date Extracted: 08/26/2015 08:52

Instrument ID: A4HP9 Date Analyzed: 08/28/2015 08:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194855/24-A	50828004.D	08/28/2015 08:59
D-DUP06-082415	240-54676-13	50828005.D	08/28/2015 10:11
D-VB-F-23-2	240-54676-9	50828006.D	08/28/2015 10:36
D-VB-F-24-2	240-54676-10	50828007.D	08/28/2015 11:00
D-VS-F1-4-2	240-54676-1	50828008.D	08/28/2015 11:24
D-VB-F1-5-3	240-54676-4	50828009.D	08/28/2015 11:49
D-DUP05-082415	240-54676-6	50828010.D	08/28/2015 12:13
D-VB-F1-1-3	240-54676-2	50828011.D	08/28/2015 12:37
D-VB-F-20-2	240-54676-8	50828012.D	08/28/2015 13:01
D-VB-F-25-2	240-54676-11	50828013.D	08/28/2015 13:26
D-VS-F-3-1	240-54676-12	50828014.D	08/28/2015 13:50
D-VB-F1-4-3	240-54676-3	50828015.D	08/28/2015 14:14
D-VB-F1-10-3	240-54676-5	50828016.D	08/28/2015 14:38
D-VS-F1-3-2	240-54676-7	50828017.D	08/28/2015 15:03

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50828001.D DFTPP Injection Date: 08/28/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:25

Analysis Batch No.: 195245

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.2	
70	Less than 2.0% of mass 69	0.5	(0.6)1
127	25.0 - 75.0% of mass 198	55.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.9	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	7.8	
442	40.0 - 110.0% of mass 198	45.9	
443	15.0 - 24.0% of mass 442	8.7	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-195245/2	50828002.D	08/28/2015	07:46
	MB 240-194855/23-A	50828003.D	08/28/2015	08:35
	LCS 240-194855/24-A	50828004.D	08/28/2015	08:59
D-DUP06-082415	240-54676-13	50828005.D	08/28/2015	10:11
D-VB-F-23-2	240-54676-9	50828006.D	08/28/2015	10:36
D-VB-F-24-2	240-54676-10	50828007.D	08/28/2015	11:00
D-VS-F1-4-2	240-54676-1	50828008.D	08/28/2015	11:24
D-VB-F1-5-3	240-54676-4	50828009.D	08/28/2015	11:49
D-DUP05-082415	240-54676-6	50828010.D	08/28/2015	12:13
D-VB-F1-1-3	240-54676-2	50828011.D	08/28/2015	12:37
D-VB-F-20-2	240-54676-8	50828012.D	08/28/2015	13:01
D-VB-F-25-2	240-54676-11	50828013.D	08/28/2015	13:26
D-VS-F-3-1	240-54676-12	50828014.D	08/28/2015	13:50
D-VB-F1-4-3	240-54676-3	50828015.D	08/28/2015	14:14
D-VB-F1-10-3	240-54676-5	50828016.D	08/28/2015	14:38
D-VS-F1-3-2	240-54676-7	50828017.D	08/28/2015	15:03

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-195245/2 CCVIS		146011	6.16	578820	7.29	319166	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-195245/2 CCVIS		514024	10.05	528635	12.30	451296	13.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: CCV 240-195245/2 Date Analyzed: 08/28/2015 07:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50828002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		146011	6.16	578820	7.29	319166	8.79
UPPER LIMIT		292022	6.66	1157640	7.79	638332	9.29
LOWER LIMIT		73006	5.66	289410	6.79	159583	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194855/23-A		123267	6.17	479781	7.29	265586	8.79
LCS 240-194855/24-A		120304	6.17	485464	7.29	268310	8.79
240-54676-13	D-DUP06-082415	120981	6.17	505988	7.29	274379	8.79
240-54676-9	D-VB-F-23-2	120079	6.17	500408	7.29	273321	8.79
240-54676-10	D-VB-F-24-2	115278	6.17	466209	7.29	255697	8.79
240-54676-1	D-VS-F1-4-2	121433	6.16	476475	7.29	265252	8.79
240-54676-4	D-VB-F1-5-3	124072	6.17	511501	7.29	288766	8.79
240-54676-6	D-DUP05-082415	117267	6.16	475174	7.29	260811	8.79
240-54676-2	D-VB-F1-1-3	128060	6.17	508781	7.29	287048	8.79
240-54676-8	D-VB-F-20-2	128909	6.17	497452	7.29	284616	8.79
240-54676-11	D-VB-F-25-2	124735	6.17	495822	7.29	278659	8.79
240-54676-12	D-VS-F-3-1	134122	6.17	532177	7.29	296348	8.79
240-54676-3	D-VB-F1-4-3	137157	6.17	556585	7.29	315518	8.79
240-54676-5	D-VB-F1-10-3	142591	6.17	556878	7.29	316402	8.79
240-54676-7	D-VS-F1-3-2	145403	6.17	570650	7.29	332525	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: CCV 240-195245/2 Date Analyzed: 08/28/2015 07:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50828002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		514024	10.05	528635	12.30	451296	13.90
UPPER LIMIT		1028048	10.55	1057270	12.80	902592	14.40
LOWER LIMIT		257012	9.55	264318	11.80	225648	13.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194855/23-A		427363	10.05	454807	12.30	368357	13.90
LCS 240-194855/24-A		442589	10.05	481637	12.29	400900	13.90
240-54676-13	D-DUP06-082415	462688	10.05	485435	12.30	384284	13.90
240-54676-9	D-VB-F-23-2	454269	10.05	480952	12.30	391633	13.90
240-54676-10	D-VB-F-24-2	417508	10.05	429768	12.29	362776	13.90
240-54676-1	D-VS-F1-4-2	420181	10.05	436755	12.29	371035	13.90
240-54676-4	D-VB-F1-5-3	469855	10.05	495792	12.29	401146	13.90
240-54676-6	D-DUP05-082415	424923	10.05	429171	12.30	371394	13.90
240-54676-2	D-VB-F1-1-3	475049	10.05	518073	12.29	457145	13.91
240-54676-8	D-VB-F-20-2	467463	10.05	498732	12.29	446232	13.90
240-54676-11	D-VB-F-25-2	462960	10.05	505699	12.29	438615	13.90
240-54676-12	D-VS-F-3-1	491239	10.05	529017	12.30	460188	13.90
240-54676-3	D-VB-F1-4-3	520310	10.05	568705	12.30	503755	13.90
240-54676-5	D-VB-F1-10-3	525919	10.05	577379	12.30	542613	13.90
240-54676-7	D-VS-F1-3-2	536498	10.05	592441	12.30	527894	13.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F1-4-2 | Lab Sample ID: 240-54676-1

Matrix: Solid | Lab File ID: 50828008.D

Analysis Method: 8270D | Date Collected: 08/24/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.68(g) | Date Analyzed: 08/28/2015 11:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	0.87	U	7.5	0.87
56-55-3	Benzo[a]anthracene	8.2		7.5	0.70
50-32-8	Benzo[a]pyrene	0.72	U	7.5	0.72
205-99-2	Benzo[b]fluoranthene	15		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	6.0	J	7.5	0.39
207-08-9	Benzo[k]fluoranthene	10		7.5	0.76
218-01-9	Chrysene	15		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	19		7.5	0.62
86-73-7	Fluorene	0.59	U	7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	4.1	J	7.5	0.39
91-20-3	Naphthalene	5.3	J	7.5	0.92
85-01-8	Phenanthrene	6.0	J	7.5	0.82
129-00-0	Pyrene	16		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	97		36-110
4165-62-2	Phenol-d5 (Surr)	80		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	67		20-110
367-12-4	2-Fluorophenol (Surr)	74		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	30		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-1-3 | Lab Sample ID: 240-54676-2

Matrix: Solid | Lab File ID: 50828011.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:10

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.34(g) | Date Analyzed: 08/28/2015 12:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.9	J	7.8	0.89
208-96-8	Acenaphthylene	6.3	J	7.8	0.41
120-12-7	Anthracene	16		7.8	0.91
56-55-3	Benzo[a]anthracene	65		7.8	0.74
50-32-8	Benzo[a]pyrene	72		7.8	0.75
205-99-2	Benzo[b]fluoranthene	120		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	67		7.8	0.41
207-08-9	Benzo[k]fluoranthene	38		7.8	0.79
218-01-9	Chrysene	81		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	17		7.8	0.77
206-44-0	Fluoranthene	120		7.8	0.64
86-73-7	Fluorene	8.6		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	56		7.8	0.41
91-20-3	Naphthalene	14		7.8	0.96
85-01-8	Phenanthrene	52		7.8	0.85
129-00-0	Pyrene	110		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	83		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-4-3 | Lab Sample ID: 240-54676-3

Matrix: Solid | Lab File ID: 50828015.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.07(g) | Date Analyzed: 08/28/2015 14:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	14		7.7	0.88
208-96-8	Acenaphthylene	9.8		7.7	0.41
120-12-7	Anthracene	29		7.7	0.91
56-55-3	Benzo[a]anthracene	87		7.7	0.73
50-32-8	Benzo[a]pyrene	82		7.7	0.74
205-99-2	Benzo[b]fluoranthene	110		7.7	0.69
191-24-2	Benzo[g,h,i]perylene	57		7.7	0.41
207-08-9	Benzo[k]fluoranthene	58		7.7	0.79
218-01-9	Chrysene	86		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	13		7.7	0.77
206-44-0	Fluoranthene	200		7.7	0.64
86-73-7	Fluorene	16		7.7	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	51		7.7	0.41
91-20-3	Naphthalene	10		7.7	0.95
85-01-8	Phenanthrene	110		7.7	0.85
129-00-0	Pyrene	190		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	78		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	58		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-5-3 | Lab Sample ID: 240-54676-4

Matrix: Solid | Lab File ID: 50828009.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:20

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.05(g) | Date Analyzed: 08/28/2015 11:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	7.5	J	7.9	0.92
56-55-3	Benzo[a]anthracene	4.3	J	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	5.1	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.9	0.41
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	5.8	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	63		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	5.8	J	7.9	0.86
129-00-0	Pyrene	48		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		36-110
4165-62-2	Phenol-d5 (Surr)	90		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	75		20-110
367-12-4	2-Fluorophenol (Surr)	86		24-110
321-60-8	2-Fluorobiphenyl (Surr)	75		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-10-3 | Lab Sample ID: 240-54676-5

Matrix: Solid | Lab File ID: 50828016.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:25

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.53(g) | Date Analyzed: 08/28/2015 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	17		7.9	0.90
208-96-8	Acenaphthylene	15		7.9	0.41
120-12-7	Anthracene	60		7.9	0.92
56-55-3	Benzo[a]anthracene	170		7.9	0.74
50-32-8	Benzo[a]pyrene	210		7.9	0.76
205-99-2	Benzo[b]fluoranthene	290		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	180		7.9	0.41
207-08-9	Benzo[k]fluoranthene	110		7.9	0.80
218-01-9	Chrysene	300		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	51		7.9	0.78
206-44-0	Fluoranthene	270		7.9	0.65
86-73-7	Fluorene	18		7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	150		7.9	0.41
91-20-3	Naphthalene	19		7.9	0.97
85-01-8	Phenanthrene	150		7.9	0.86
129-00-0	Pyrene	270		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	74		24-110
321-60-8	2-Fluorobiphenyl (Surr)	76		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-DUP05-082415 | Lab Sample ID: 240-54676-6

Matrix: Solid | Lab File ID: 50828010.D

Analysis Method: 8270D | Date Collected: 08/24/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.32(g) | Date Analyzed: 08/28/2015 12:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	0.87	U	7.5	0.87
56-55-3	Benzo[a]anthracene	0.70	U	7.5	0.70
50-32-8	Benzo[a]pyrene	0.72	U	7.5	0.72
205-99-2	Benzo[b]fluoranthene	5.5	J	7.5	0.66
191-24-2	Benzo[g,h,i]perylene	0.39	U	7.5	0.39
207-08-9	Benzo[k]fluoranthene	0.76	U	7.5	0.76
218-01-9	Chrysene	5.2	J	7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	7.0	J	7.5	0.62
86-73-7	Fluorene	0.59	U	7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	0.39	U	7.5	0.39
91-20-3	Naphthalene	0.92	U	7.5	0.92
85-01-8	Phenanthrene	0.82	U	7.5	0.82
129-00-0	Pyrene	6.8	J	7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54676-7

Matrix: Solid | Lab File ID: 50828017.D

Analysis Method: 8270D | Date Collected: 08/24/2015 14:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.49(g) | Date Analyzed: 08/28/2015 15:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	9.7		8.0	0.93
56-55-3	Benzo[a]anthracene	40		8.0	0.75
50-32-8	Benzo[a]pyrene	44		8.0	0.76
205-99-2	Benzo[b]fluoranthene	65		8.0	0.70
191-24-2	Benzo[g,h,i]perylene	31		8.0	0.42
207-08-9	Benzo[k]fluoranthene	22		8.0	0.81
218-01-9	Chrysene	48		8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	63		8.0	0.66
86-73-7	Fluorene	0.63	U	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	26		8.0	0.42
91-20-3	Naphthalene	6.1	J	8.0	0.98
85-01-8	Phenanthrene	28		8.0	0.87
129-00-0	Pyrene	61		8.0	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-20-2 | Lab Sample ID: 240-54676-8

Matrix: Solid | Lab File ID: 50828012.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.49(g) | Date Analyzed: 08/28/2015 13:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	0.92	U	7.9	0.92
56-55-3	Benzo[a]anthracene	15		7.9	0.74
50-32-8	Benzo[a]pyrene	14		7.9	0.76
205-99-2	Benzo[b]fluoranthene	36		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	14		7.9	0.41
207-08-9	Benzo[k]fluoranthene	12		7.9	0.80
218-01-9	Chrysene	30		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	23		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	10		7.9	0.86
129-00-0	Pyrene	33		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	73		20-110
367-12-4	2-Fluorophenol (Surr)	80		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-23-2 | Lab Sample ID: 240-54676-9

Matrix: Solid | Lab File ID: 50828006.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:05

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.99(g) | Date Analyzed: 08/28/2015 10:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	0.77	U	8.1	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.1	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.1	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.1	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.1	0.83
218-01-9	Chrysene	1.3	U	8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.1	0.81
206-44-0	Fluoranthene	0.67	U	8.1	0.67
86-73-7	Fluorene	0.65	U	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.1	0.43
91-20-3	Naphthalene	1.0	U	8.1	1.0
85-01-8	Phenanthrene	0.89	U	8.1	0.89
129-00-0	Pyrene	0.54	U	8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	86		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-24-2 | Lab Sample ID: 240-54676-10

Matrix: Solid | Lab File ID: 50828007.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:10

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.27(g) | Date Analyzed: 08/28/2015 11:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	0.69	U	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	0.64	U	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	0.85	U	7.8	0.85
129-00-0	Pyrene	0.51	U	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	91		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	85		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-25-2 | Lab Sample ID: 240-54676-11

Matrix: Solid | Lab File ID: 50828013.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.74(g) | Date Analyzed: 08/28/2015 13:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	16		7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	23		7.5	0.87
56-55-3	Benzo[a]anthracene	75		7.5	0.71
50-32-8	Benzo[a]pyrene	74		7.5	0.72
205-99-2	Benzo[b]fluoranthene	100		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	53		7.5	0.39
207-08-9	Benzo[k]fluoranthene	39		7.5	0.76
218-01-9	Chrysene	79		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	13		7.5	0.74
206-44-0	Fluoranthene	160		7.5	0.62
86-73-7	Fluorene	9.8		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	43		7.5	0.39
91-20-3	Naphthalene	5.8	J	7.5	0.92
85-01-8	Phenanthrene	95		7.5	0.82
129-00-0	Pyrene	140		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	76		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	26		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F-3-1 | Lab Sample ID: 240-54676-12

Matrix: Solid | Lab File ID: 50828014.D

Analysis Method: 8270D | Date Collected: 08/24/2015 11:30

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.10(g) | Date Analyzed: 08/28/2015 13:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.97	U	8.5	0.97
208-96-8	Acenaphthylene	0.45	U	8.5	0.45
120-12-7	Anthracene	11		8.5	1.0
56-55-3	Benzo[a]anthracene	75		8.5	0.80
50-32-8	Benzo[a]pyrene	71		8.5	0.82
205-99-2	Benzo[b]fluoranthene	110		8.5	0.75
191-24-2	Benzo[g,h,i]perylene	54		8.5	0.45
207-08-9	Benzo[k]fluoranthene	46		8.5	0.87
218-01-9	Chrysene	92		8.5	1.4
53-70-3	Dibenz(a,h)anthracene	13		8.5	0.84
206-44-0	Fluoranthene	160		8.5	0.70
86-73-7	Fluorene	0.68	U	8.5	0.68
193-39-5	Indeno[1,2,3-cd]pyrene	44		8.5	0.45
91-20-3	Naphthalene	1.0	U	8.5	1.0
85-01-8	Phenanthrene	44		8.5	0.93
129-00-0	Pyrene	140		8.5	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-DUP06-082415 | Lab Sample ID: 240-54676-13

Matrix: Solid | Lab File ID: 50828005.D

Analysis Method: 8270D | Date Collected: 08/24/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.57(g) | Date Analyzed: 08/28/2015 10:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.0	0.92
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.94	U	8.0	0.94
56-55-3	Benzo[a]anthracene	0.76	U	8.0	0.76
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	0.71	U	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.0	0.82
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.0	0.80
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.64	U	8.0	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.99	U	8.0	0.99
85-01-8	Phenanthrene	0.88	U	8.0	0.88
129-00-0	Pyrene	4.7	J	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID (1): CCV 240-195245/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/28/2015 07:46

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.90	100.0
Phenol-d5 (Surr)	5.84	100.0
Nitrobenzene-d5 (Surr)	6.65	100.0
Naphthalene	7.31	100.0
2-Fluorobiphenyl (Surr)	8.19	100.0
Acenaphthylene	8.67	100.0
Acenaphthene	8.82	100.0
Fluorene	9.25	100.0
2,4,6-Tribromophenol (Surr)	9.46	100.0
Phenanthrene	10.07	100.0
Anthracene	10.11	100.0
Fluoranthene	11.08	100.0
Pyrene	11.28	100.0
Terphenyl-d14 (Surr)	11.37	100.0
Benzo[a]anthracene	12.29	100.0
Chrysene	12.32	100.0
Benzo[b]fluoranthene	13.41	41.10
Benzo[k]fluoranthene	13.44	100.0
Benzo[a]pyrene	13.83	100.0
Indeno[1,2,3-cd]pyrene	15.64	100.0
Dibenz(a,h)anthracene	15.65	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 | Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.693	2.052		12.1	10.0	21.2*	20.0
Pyridine	Ave	2.930	3.337		11.4	10.0	13.9	20.0
Benzaldehyde	Ave	2.328	2.329	0.0100	20.0	20.0	0.0	20.0
Phenol	Ave	2.775	3.020	0.8000	10.9	10.0	8.8	20.0
Aniline	Ave	3.583	3.722		10.4	10.0	3.9	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.610	0.7000	10.4	10.0	4.1	20.0
2-Chlorophenol	Ave	1.523	1.470	0.8000	9.65	10.0	-3.5	20.0
n-Decane	Ave	1.999	2.285		11.4	10.0	14.3	20.0
1,3-Dichlorobenzene	Ave	1.630	1.549		9.50	10.0	-5.0	20.0
1,4-Dichlorobenzene	Ave	1.666	1.608		9.65	10.0	-3.5	20.0
Benzyl alcohol	Ave	1.232	1.128		9.16	10.0	-8.4	20.0
1,2-Dichlorobenzene	Ave	1.580	1.493		9.45	10.0	-5.5	20.0
2-Methylphenol	Ave	1.706	1.608	0.7000	9.42	10.0	-5.8	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.736		9.21	10.0	-7.9	20.0
Indene	Ave	3.185	2.943		18.5	20.0	-7.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	2.055	0.5000	10.4	10.0	3.8	20.0
Acetophenone	Ave	2.817	2.625	0.0100	9.32	10.0	-6.8	20.0
3 & 4 Methylphenol	Ave	1.799	1.694		9.42	10.0	-5.8	20.0
Hexachloroethane	Ave	0.8166	0.7566	0.3000	9.27	10.0	-7.3	20.0
Nitrobenzene	Ave	0.7749	0.7918	0.2000	10.2	10.0	2.2	20.0
Isophorone	Ave	1.226	1.248	0.4000	10.2	10.0	1.8	20.0
2-Nitrophenol	Ave	0.1796	0.1777	0.1000	9.90	10.0	-1.0	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4612	0.2000	9.43	10.0	-5.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.7060	0.3000	10.4	10.0	4.4	20.0
Benzoic acid	Lin1		0.1312		11.9	20.0	-40.4*	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2742	0.2000	8.96	10.0	-10.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.2973		9.14	10.0	-8.6	20.0
Naphthalene	Ave	1.144	1.045	0.7000	9.14	10.0	-8.6	20.0
4-Chloroaniline	Ave	0.4932	0.4550	0.0100	9.23	10.0	-7.7	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2698		9.09	10.0	-9.1	20.0
Hexachlorobutadiene	Ave	0.2017	0.1672	0.0100	8.29	10.0	-17.1	20.0
Caprolactam	Ave	0.1384	0.1443	0.0100	20.9	20.0	4.3	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.3854	0.2000	9.21	10.0	-7.9	20.0
2-Methylnaphthalene	Ave	0.7006	0.6381	0.4000	9.11	10.0	-8.9	20.0
1-Methylnaphthalene	Ave	0.6168	0.5532		8.97	10.0	-10.3	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.1841	0.0500	5.55	10.0	-44.5*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5160	0.0100	9.07	10.0	-9.3	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3404	0.2000	9.09	10.0	-9.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3438	0.2000	8.72	10.0	-12.8	20.0
1,1'-Biphenyl	Ave	1.483	1.352	0.0100	9.12	10.0	-8.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 | Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.171	1.080	0.8000	9.23	10.0	-7.7	20.0
2-Nitroaniline	Ave	0.6109	0.6635	0.0100	10.9	10.0	8.6	20.0
Dimethyl phthalate	Ave	1.267	1.177	0.0100	9.29	10.0	-7.1	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2199		11.1	10.0	11.5	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2938		10.5	10.0	4.8	20.0
Acenaphthylene	Ave	1.869	1.721	0.9000	9.21	10.0	-7.9	20.0
3-Nitroaniline	Ave	0.3056	0.3060	0.0100	10.0	10.0	0.1	20.0
2,4-Dinitrophenol	Lin1		0.1164	0.0100	16.2	20.0	-19.1	20.0
Acenaphthene	Ave	1.201	1.064	0.9000	8.87	10.0	-11.3	20.0
4-Nitrophenol	Ave	0.2548	0.2414		18.9	20.0	-5.3	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3756	0.2000	10.0	10.0	0.4	20.0
Dibenzofuran	Ave	1.648	1.481	0.8000	8.98	10.0	-10.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.2559	0.0100	8.13	10.0	-18.7	20.0
Diethyl phthalate	Ave	1.245	1.102	0.0100	8.85	10.0	-11.5	20.0
Hexadecane	Ave	1.016	0.9935		9.78	10.0	-2.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5504	0.4000	8.97	10.0	-10.3	20.0
4-Nitroaniline	Ave	0.2967	0.3280	0.0100	11.1	10.0	10.5	20.0
Fluorene	Ave	1.379	1.188	0.9000	8.62	10.0	-13.8	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1244	0.0100	20.3	20.0	1.3	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5102	0.0100	17.9	20.0	-10.3	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.580		10.0	10.0	0.0	20.0
Azobenzene	Ave	1.580	1.583		10.0	10.0	0.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.1874	0.1000	8.77	10.0	-12.3	20.0
Hexachlorobenzene	Ave	0.2114	0.1775	0.1000	8.40	10.0	-16.0	20.0
Atrazine	Ave	0.2132	0.2115	0.0100	19.8	20.0	-0.8	20.0
n-Octadecane	Ave	0.6421	0.6731		10.5	10.0	4.8	20.0
Pentachlorophenol	Ave	0.1444	0.0950	0.0500	13.2	20.0	-34.2*	20.0
Phenanthrene	Ave	1.268	1.135	0.7000	8.95	10.0	-10.5	20.0
Anthracene	Ave	1.261	1.145	0.7000	9.08	10.0	-9.2	20.0
Carbazole	Ave	1.050	1.055	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.250	1.291	0.0100	10.3	10.0	3.3	20.0
Fluoranthene	Ave	1.280	1.213	0.6000	9.47	10.0	-5.3	20.0
Benzidine	Lin1		0.7251		23.4	20.0	17.1	20.0
Pyrene	Ave	1.153	1.210	0.6000	10.5	10.0	4.9	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5793	0.0100	10.8	10.0	7.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7835	0.0100	10.7	10.0	7.2	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3886	0.0100	21.6	20.0	8.1	20.0
Benzo[a]anthracene	Ave	1.234	1.177	0.8000	9.53	10.0	-4.7	20.0
Chrysene	Ave	1.158	1.123	0.7000	9.70	10.0	-3.0	20.0
Di-n-octyl phthalate	Ave	1.419	1.603	0.0100	11.3	10.0	13.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.185	1.169	0.7000	9.87	10.0	-1.3	20.0
Benzo[k]fluoranthene	Ave	1.198	1.281	0.7000	10.7	10.0	6.9	20.0
Benzo[a]pyrene	Ave	1.128	1.152	0.7000	10.2	10.0	2.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.239	0.5000	10.6	10.0	5.6	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.011	0.4000	11.0	10.0	10.0	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.028	0.5000	10.6	10.0	5.5	20.0
1,4-Dioxane	Ave	0.9857			0.000490	10.0		
2-Fluorophenol (Surr)	Ave	1.750	1.823		10.4	10.0	4.1	20.0
Phenol-d5 (Surr)	Ave	2.475	2.547		10.3	10.0	2.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7673		9.91	10.0	-0.9	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.178		9.02	10.0	-9.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.0953		7.33	10.0	-26.7*	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7349		9.98	10.0	-0.2	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194855/23-A

Matrix: Solid | Lab File ID: 50828003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30(g) | Date Analyzed: 08/28/2015 08:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	99		36-110
4165-62-2	Phenol-d5 (Surr)	90		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-194855/24-A

Matrix: Solid | Lab File ID: 50828004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30(g) | Date Analyzed: 08/28/2015 08:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	515		6.7	0.76
208-96-8	Acenaphthylene	535		6.7	0.35
120-12-7	Anthracene	538		6.7	0.78
56-55-3	Benzo[a]anthracene	544		6.7	0.63
50-32-8	Benzo[a]pyrene	578		6.7	0.64
205-99-2	Benzo[b]fluoranthene	573		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	610		6.7	0.35
207-08-9	Benzo[k]fluoranthene	619		6.7	0.68
218-01-9	Chrysene	566		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	632		6.7	0.66
206-44-0	Fluoranthene	561		6.7	0.55
86-73-7	Fluorene	509		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	610		6.7	0.35
91-20-3	Naphthalene	522		6.7	0.82
85-01-8	Phenanthrene	534		6.7	0.73
129-00-0	Pyrene	597		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	89		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	81		20-110
367-12-4	2-Fluorophenol (Surr)	86		24-110
321-60-8	2-Fluorobiphenyl (Surr)	75		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	56		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/08/2015 15:10

Analysis Batch Number: 192437 End Date: 08/08/2015 23:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-192437/1		08/08/2015 15:10	1	50808001.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/2 IC		08/08/2015 15:32	1	50808002.D	RXI-5SILMS 0.45(mm)
STD4 240-192437/3 IC		08/08/2015 15:57	1	50808003.D	RXI-5SILMS 0.45(mm)
STD3 240-192437/4 IC		08/08/2015 16:23	1	50808004.D	RXI-5SILMS 0.45(mm)
STD2 240-192437/5 IC		08/08/2015 16:48	1	50808005.D	RXI-5SILMS 0.45(mm)
STD1 240-192437/6 IC		08/08/2015 17:14	1	50808006.D	RXI-5SILMS 0.45(mm)
STD9 240-192437/7 IC		08/08/2015 17:39	1	50808007.D	RXI-5SILMS 0.45(mm)
STD8 240-192437/8 IC		08/08/2015 18:05	1	50808008.D	RXI-5SILMS 0.45(mm)
STD7 240-192437/9 IC		08/08/2015 18:31	1	50808009.D	RXI-5SILMS 0.45(mm)
STD6 240-192437/10 ICIS		08/08/2015 18:56	1	50808010.D	RXI-5SILMS 0.45(mm)
ICV 240-192437/11		08/08/2015 19:22	1	50808011.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/12 IC		08/08/2015 19:48	1		RXI-5SILMS 0.45(mm)
STD4 240-192437/13 IC		08/08/2015 20:13	1		RXI-5SILMS 0.45(mm)
STD3 240-192437/14 IC		08/08/2015 20:39	1		RXI-5SILMS 0.45(mm)
STD2 240-192437/15 IC		08/08/2015 21:04	1		RXI-5SILMS 0.45(mm)
STD6 240-192437/16 IC		08/08/2015 21:30	1		RXI-5SILMS 0.45(mm)
STD7 240-192437/17 IC		08/08/2015 21:55	1		RXI-5SILMS 0.45(mm)
STD8 240-192437/18 IC		08/08/2015 22:21	1		RXI-5SILMS 0.45(mm)
STD9 240-192437/19 IC		08/08/2015 22:47	1		RXI-5SILMS 0.45(mm)
ICV 240-192437/20		08/08/2015 23:12	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/28/2015 07:25

Analysis Batch Number: 195245 End Date: 08/28/2015 15:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-195245/1		08/28/2015 07:25	1	50828001.D	RXI-5SILMS 0.45(mm)
CCV 240-195245/2 CCVIS		08/28/2015 07:46	1	50828002.D	RXI-5SILMS 0.45(mm)
CCV 240-195245/18		08/28/2015 08:11	1		RXI-5SILMS 0.45(mm)
MB 240-194855/23-A		08/28/2015 08:35	1	50828003.D	RXI-5SILMS 0.45(mm)
LCS 240-194855/24-A		08/28/2015 08:59	1	50828004.D	RXI-5SILMS 0.45(mm)
240-54676-13	D-DUP06-082415	08/28/2015 10:11	1	50828005.D	RXI-5SILMS 0.45(mm)
240-54676-9	D-VB-F-23-2	08/28/2015 10:36	1	50828006.D	RXI-5SILMS 0.45(mm)
240-54676-10	D-VB-F-24-2	08/28/2015 11:00	1	50828007.D	RXI-5SILMS 0.45(mm)
240-54676-1	D-VS-F1-4-2	08/28/2015 11:24	1	50828008.D	RXI-5SILMS 0.45(mm)
240-54676-4	D-VB-F1-5-3	08/28/2015 11:49	1	50828009.D	RXI-5SILMS 0.45(mm)
240-54676-6	D-DUP05-082415	08/28/2015 12:13	1	50828010.D	RXI-5SILMS 0.45(mm)
240-54676-2	D-VB-F1-1-3	08/28/2015 12:37	1	50828011.D	RXI-5SILMS 0.45(mm)
240-54676-8	D-VB-F-20-2	08/28/2015 13:01	1	50828012.D	RXI-5SILMS 0.45(mm)
240-54676-11	D-VB-F-25-2	08/28/2015 13:26	1	50828013.D	RXI-5SILMS 0.45(mm)
240-54676-12	D-VS-F-3-1	08/28/2015 13:50	1	50828014.D	RXI-5SILMS 0.45(mm)
240-54676-3	D-VB-F1-4-3	08/28/2015 14:14	1	50828015.D	RXI-5SILMS 0.45(mm)
240-54676-5	D-VB-F1-10-3	08/28/2015 14:38	1	50828016.D	RXI-5SILMS 0.45(mm)
240-54676-7	D-VS-F1-3-2	08/28/2015 15:03	1	50828017.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Batch Number: 194855 Batch Start Date: 08/26/15 11:25 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/27/15 03:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00049	exBNASURR W 00026	
240-54676-B-1	D-VS-F1-4-2	3540C, 8270D	T	29.68 g	2 mL			1 mL	
240-54676-B-2	D-VB-F1-1-3	3540C, 8270D	T	30.34 g	2 mL			1 mL	
240-54676-B-3	D-VB-F1-4-3	3540C, 8270D	T	30.07 g	2 mL			1 mL	
240-54676-B-4	D-VB-F1-5-3	3540C, 8270D	T	30.05 g	2 mL			1 mL	
240-54676-B-5	D-VB-F1-10-3	3540C, 8270D	T	29.53 g	2 mL			1 mL	
240-54676-B-6	D-DUP05-082415	3540C, 8270D	T	30.32 g	2 mL			1 mL	
240-54676-B-7	D-VS-F1-3-2	3540C, 8270D	T	30.49 g	2 mL			1 mL	
240-54676-B-8	D-VB-F-20-2	3540C, 8270D	T	30.49 g	2 mL			1 mL	
240-54676-B-9	D-VB-F-23-2	3540C, 8270D	T	29.99 g	2 mL			1 mL	
240-54676-B-10	D-VB-F-24-2	3540C, 8270D	T	30.27 g	2 mL			1 mL	
240-54676-B-11	D-VB-F-25-2	3540C, 8270D	T	29.74 g	2 mL			1 mL	
240-54676-B-12	D-VS-F-3-1	3540C, 8270D	T	30.10 g	2 mL			1 mL	
240-54676-B-13	D-DUP06-082415	3540C, 8270D	T	29.57 g	2 mL			1 mL	
MB 240-194855/23		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-194855/24		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54676-1

SDG No.:

Project: MRC Soil Remedy Block D

Client Sample ID	Lab Sample ID
D-VS-F1-4-2	240-54676-1
D-VB-F1-1-3	240-54676-2
D-VB-F1-4-3	240-54676-3
D-VB-F1-5-3	240-54676-4
D-VB-F1-10-3	240-54676-5
D-DUP05-082415	240-54676-6
D-VS-F1-3-2	240-54676-7
D-VB-F-20-2	240-54676-8
D-VB-F-23-2	240-54676-9
D-VB-F-24-2	240-54676-10
D-VB-F-25-2	240-54676-11
D-VS-F-3-1	240-54676-12
D-DUP06-082415	240-54676-13

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54676-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54676-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/25/2015 13:55 End Date: 08/25/2015 16:44

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			13:55																					
ZZZZZZ			13:55																					
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240-54676-1	1	T	13:55	X	X																			
240-54676-2	1	T	13:55	X	X																			
240-54676-3	1	T	13:55	X	X																			
240-54676-4	1	T	13:55	X	X																			
240-54676-5	1	T	13:55	X	X																			
240-54676-6	1	T	13:55	X	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/25/2015 13:55 End Date: 08/25/2015 16:44

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
240-54676-7	1	T	13:55	X	X																		
240-54676-8 DU	1	T	13:55	X	X																		
240-54676-8	1	T	13:55	X	X																		
240-54676-9	1	T	13:55	X	X																		
240-54676-10	1	T	13:55	X	X																		
240-54676-11	1	T	13:55	X	X																		
240-54676-12	1	T	13:55	X	X																		
240-54676-13	1	T	13:55	X	X																		
ZZZZZZ			13:55																				
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ZZZZZZ			16:44																				

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Batch Number: 194755 Batch Start Date: 08/25/15 13:55 Batch Analyst: Woodward, Bruce

Batch Method: Moisture Batch End Date: 08/26/15 10:19

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54676-A-1	D-VS-F1-4-2	Moisture	T	4.2475 g	18.9319 g	17.5185 g			
240-54676-A-2	D-VB-F1-1-3	Moisture	T	4.2475 g	25.8601 g	22.5647 g			
240-54676-A-3	D-VB-F1-4-3	Moisture	T	4.2475 g	21.1265 g	18.7512 g			
240-54676-A-4	D-VB-F1-5-3	Moisture	T	4.2475 g	20.9627 g	18.3326 g			
240-54676-A-5	D-VB-F1-10-3	Moisture	T	4.2475 g	20.9119 g	18.5672 g			
240-54676-A-6	D-DUP05-082415	Moisture	T	4.2475 g	15.3205 g	14.0431 g			
240-54676-A-7	D-VS-F1-3-2	Moisture	T	4.2475 g	28.6449 g	24.3854 g			
240-54676-A-8 DU	D-VB-F-20-2	Moisture	T	4.2475 g	9.9272 g	9.0272 g			
240-54676-A-8	D-VB-F-20-2	Moisture	T	4.2475 g	16.2407 g	14.2501 g			
240-54676-A-9	D-VB-F-23-2	Moisture	T	4.2475 g	16.0592 g	13.9230 g			
240-54676-A-10	D-VB-F-24-2	Moisture	T	4.2475 g	16.1011 g	14.3191 g			
240-54676-A-11	D-VB-F-25-2	Moisture	T	4.2475 g	18.9693 g	17.5130 g			
240-54676-A-12	D-VS-F-3-1	Moisture	T	4.2475 g	20.4746 g	16.9258 g			
240-54676-A-13	D-DUP06-082415	Moisture	T	4.2475 g	14.5587 g	12.9226 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	8/25/15
Oven Temp when samples are put in oven	103.4 Degrees C
Time samples were place in the oven	16:50
Date samples were removed from oven	8/26/15
Oven Temp when samples removed from oven	103.0 Degrees C
Time Samples were removed from oven	04:50
Oven ID	002
ID number of the thermometer	TempGuard Box-C #6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

06/C16

Chain of Custody Record

#33 016179

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FEDEX	1 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week 30 DAYS ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
PO # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
D-VS-F1-4-2	8/24/15	1015	C	SOIL	1			K	
D-VB-F1-1-3		0910						K	
D-VB-F1-4-3		0915						K	
D-VB-F1-5-3		0920						K	
D-VB-F1-10-3		0925						K	
D-DUP05-082415		—						K	
D-VS-F1-3-2		1400						K	
D-VB-F-20-2		1200						K	
D-VB-F-23-2		1205						K	
D-VB-F-24-2		1210						K	
D-VB-F-25-2		1215						K	
~~D-VB~~ D-VS-F-3-1		1130						K	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TETRA TECH	8/24/15 1630		TestAmerica	8/24/15 1635
Relinquished by:	TestAmerica	8/24/15 1720	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA Canton	8-25-15 9:30 am

Chain of Custody Record #33

016178

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FEDEX	2 of 2 COCs
Address: 20251 CENTURY BLVD. STE. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week 3 DAYS ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: MAL SOIL REMEDY				Job / SDG No.:
Site: MAL BLOCK D				
P O # 112IL07487				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	PAH 8270D	Sample Specific Notes:
D-OVB06-082415	8/24/15	—	C	SOIL	1			X	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MAL SOIL REMEDY VERIFICATION SAMPLES, BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by:	Company: Tetra Tech	Date/Time: 8/24/15 1630	Received by:	Company: TestAmerica	Date/Time: 8/24/15 1635
Relinquished by:	Company: TestAmerica	Date/Time: 8/24/15 1720	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA Canton	Date/Time: 8-25-15 9:30 am

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 5M6X6
Canton Facility

Client Tetra Tech Site Name MRC Block D Cooler unpacked by: Jenny Stillee
Cooler Received on 8-25-15 Opened on 8-25-15
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other
Receipt After-hours: Drop-off Date/Time Storage Location
TestAmerica Cooler # No# Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.6 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~ ☐ See Multiple Cooler Form
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes No

Contacted PM Date by via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION
Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION
Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

ANALYTICAL REPORT

Job Number: 240-54724-1

Job Description: MRC Soil Remedy Block D Area F

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
8/31/2015 4:54 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
08/31/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D Area F

Report Number: 240-54724-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/26/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 08/27/2015.

2-Butanone (MEK) and Acetone were detected in method blank MB 240-195083/7 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

2-Chloro-ethyl vinyl ether cannot be reliably recovered in an acid preserved sample. WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12)

The continuing calibration verification (CCV) for analytical batch 195083 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18) and D-DUP07-082515 (240-54724-19) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/27/2015 and analyzed on 08/29/2015.

Samples D-VB-F-1-2 (240-54724-1)[2X] and D-VB-D-2-2 (240-54724-18)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 195413 had an Rf for the surrogate 2,4,6-tribromophenol below method recommendations. Because the target analyte list is BN only no corrective action was necessary. The following samples were impacted:D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18), D-DUP07-082515 (240-54724-19), (LCS 240-195059/24-A), (LCS 240-195060/6-A), (MB 240-195059/23-A), (MB 240-195060/5-A), (240-54724-B-17-B MS), (240-54724-B-17-C MSD), (240-54724-B-19-B MS) and (240-54724-B-19-C MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample WC-DFRAC-082515 (240-54724-11) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 08/29/2015 and analyzed on 08/30/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-195028

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)

Sample WC-DFRAC-082515 (240-54724-11) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The samples were leached on 08/27/2015, prepared on 08/28/2015 and analyzed on 08/31/2015.

Barium and Chromium were detected in method blank LB 240-195274/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Cadmium was detected in method blank MB 240-195294/2-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY

Sample WC-DFRAC-082515 (240-54724-11) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 08/27/2015, prepared on 08/28/2015 and analyzed on 08/31/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT

Sample WC-DFRAC-082515 (240-54724-11) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 08/28/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18) and D-DUP07-082515 (240-54724-19) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/26/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD5 240-192437/2 IC Client Sample ID:

Date Analyzed: 08/08/15 15:32 Lab File ID: 50808002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/08/15 16:08
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/08/15 16:08
Pyridine	3.64	Poor chromatography	ulmanm	08/08/15 16:08
Benzoic acid	7.19	Poor chromatography	ulmanm	08/08/15 16:06

Lab Sample ID: STD4 240-192437/3 IC Client Sample ID:

Date Analyzed: 08/08/15 15:57 Lab File ID: 50808003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:14
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:14
Pyridine	3.63	Poor chromatography	ulmanm	08/09/15 16:14
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:14

Lab Sample ID: STD3 240-192437/4 IC Client Sample ID:

Date Analyzed: 08/08/15 16:23 Lab File ID: 50808004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:17
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:17
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:17
Benzoic acid	7.17	Poor chromatography	ulmanm	08/09/15 16:17

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD2 240-192437/5 IC Client Sample ID:

Date Analyzed: 08/08/15 16:48 Lab File ID: 50808005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:22
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:22
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:22
Di-n-octyl phthalate	13.10	Poor chromatography	ulmanm	08/09/15 16:22
Benzo[g,h,i]perylene	16.86	Poor chromatography	ulmanm	08/09/15 16:22

Lab Sample ID: STD1 240-192437/6 IC Client Sample ID:

Date Analyzed: 08/08/15 17:14 Lab File ID: 50808006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibenz(a,h)anthracene	16.27	Poor chromatography	ulmanm	08/09/15 16:24
Indeno[1,2,3-cd]pyrene	16.27	Poor chromatography	ulmanm	08/09/15 16:24

Lab Sample ID: STD9 240-192437/7 IC Client Sample ID:

Date Analyzed: 08/08/15 17:39 Lab File ID: 50808007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:30
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:30
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:30
Caprolactam	7.83	Poor chromatography	ulmanm	08/09/15 16:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: STD8 240-192437/8 IC Client Sample ID:

Date Analyzed: 08/08/15 18:05 Lab File ID: 50808008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:33
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:33
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:33
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:33

Lab Sample ID: STD7 240-192437/9 IC Client Sample ID:

Date Analyzed: 08/08/15 18:31 Lab File ID: 50808009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.11	Poor chromatography	ulmanm	08/09/15 16:36
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:36
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:36
Caprolactam	7.82	Poor chromatography	ulmanm	08/09/15 16:36

Lab Sample ID: STD6 240-192437/10 ICIS Client Sample ID:

Date Analyzed: 08/08/15 18:56 Lab File ID: 50808010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:41
N-Nitrosodimethylamine	3.59	Poor chromatography	ulmanm	08/09/15 16:41
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:41
Benzoic acid	7.21	Poor chromatography	ulmanm	08/09/15 16:41
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 192437

Lab Sample ID: ICV 240-192437/11 Client Sample ID:

Date Analyzed: 08/08/15 19:22 Lab File ID: 50808011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.12	Poor chromatography	ulmanm	08/09/15 16:42
N-Nitrosodimethylamine	3.58	Poor chromatography	ulmanm	08/09/15 16:48
Pyridine	3.64	Poor chromatography	ulmanm	08/09/15 16:42
4-Chloroaniline	7.53	Poor chromatography	ulmanm	08/09/15 16:48
Caprolactam	7.81	Poor chromatography	ulmanm	08/09/15 16:48

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195413

Lab Sample ID: CCV 240-195413/2 CCVIS Client Sample ID:

Date Analyzed: 08/29/15 09:41 Lab File ID: 50829002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.05	Poor chromatography	ulmanm	08/29/15 10:13

Lab Sample ID: 240-54724-19 Client Sample ID: D-DUP07-082515

Date Analyzed: 08/29/15 11:43 Lab File ID: 50829007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:07
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:07
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:07

Lab Sample ID: 240-54724-17 Client Sample ID: D-VB-D-1-2

Date Analyzed: 08/29/15 12:56 Lab File ID: 50829010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:10
Benzo[k]fluoranthene	13.44	Poor chromatography	ulmanm	08/31/15 09:10
Indeno[1,2,3-cd]pyrene	15.64	Poor chromatography	ulmanm	08/31/15 09:10
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:10

Lab Sample ID: 240-54724-16 Client Sample ID: D-VS-D-4-1

Date Analyzed: 08/29/15 14:09 Lab File ID: 50829013.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:14
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:14
Indeno[1,2,3-cd]pyrene	15.64	Poor chromatography	ulmanm	08/31/15 09:14
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:14

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195413

Lab Sample ID: 240-54724-15 Client Sample ID: D-VS-D-3-1

Date Analyzed: 08/29/15 14:33 Lab File ID: 50829014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:16
Indeno[1,2,3-cd]pyrene	15.64	Poor chromatography	ulmanm	08/31/15 09:16
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:16

Lab Sample ID: 240-54724-10 Client Sample ID: D-VS-F-2-1

Date Analyzed: 08/29/15 15:22 Lab File ID: 50829016.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	15.64	Poor chromatography	ulmanm	08/31/15 09:18
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:18

Lab Sample ID: 240-54724-13 Client Sample ID: D-VS-D-1-1

Date Analyzed: 08/29/15 15:46 Lab File ID: 50829017.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.44	Poor chromatography	ulmanm	08/31/15 09:25
Dibenz(a,h)anthracene	15.64	Poor chromatography	ulmanm	08/31/15 09:25

Lab Sample ID: 240-54724-3 Client Sample ID: D-VB-F-3-2

Date Analyzed: 08/29/15 16:34 Lab File ID: 50829019.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.42	Poor chromatography	ulmanm	08/31/15 09:28
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:28
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:28

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195413

Lab Sample ID: 240-54724-18 Client Sample ID: D-VB-D-2-2

Date Analyzed: 08/29/15 17:23 Lab File ID: 50829021.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:30
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:30

Lab Sample ID: 240-54724-1 Client Sample ID: D-VB-F-1-2

Date Analyzed: 08/29/15 17:47 Lab File ID: 50829022.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:31
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:31

Lab Sample ID: 240-54724-2 Client Sample ID: D-VB-F-2-2

Date Analyzed: 08/29/15 18:12 Lab File ID: 50829023.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:33
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:33

Lab Sample ID: 240-54724-5 Client Sample ID: D-VB-F-5-2

Date Analyzed: 08/29/15 18:36 Lab File ID: 50829024.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	9.46	Poor chromatography	ulmanm	08/31/15 09:35
Benzo[k]fluoranthene	13.44	Poor chromatography	ulmanm	08/31/15 09:35
Indeno[1,2,3-cd]pyrene	15.66	Poor chromatography	ulmanm	08/31/15 09:35
Benzo[g,h,i]perylene	16.19	Poor chromatography	ulmanm	08/31/15 09:35

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 195413

Lab Sample ID: 240-54724-6 Client Sample ID: D-VB-F-7-2

Date Analyzed: 08/29/15 19:00 Lab File ID: 50829025.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	9.46	Poor chromatography	ulmanm	08/31/15 09:38
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:38
Benzo[k]fluoranthene	13.43	Poor chromatography	ulmanm	08/31/15 09:38
Dibenz(a,h)anthracene	15.64	Poor chromatography	ulmanm	08/31/15 09:38

Lab Sample ID: 240-54724-7 Client Sample ID: D-VB-F-8-2

Date Analyzed: 08/29/15 19:24 Lab File ID: 50829026.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:39
Benzo[k]fluoranthene	13.44	Poor chromatography	ulmanm	08/31/15 09:39

Lab Sample ID: 240-54724-9 Client Sample ID: D-VS-F-1-1

Date Analyzed: 08/29/15 19:49 Lab File ID: 50829027.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.41	Poor chromatography	ulmanm	08/31/15 09:41
Benzo[k]fluoranthene	13.44	Poor chromatography	ulmanm	08/31/15 09:41
Dibenz(a,h)anthracene	15.64	Poor chromatography	ulmanm	08/31/15 09:41
Benzo[g,h,i]perylene	16.18	Poor chromatography	ulmanm	08/31/15 09:41

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Analysis Batch Number: 194251

Lab Sample ID: STD1 240-194251/26 IC Client Sample ID:

Date Analyzed: 08/23/15 19:44 Lab File ID: P1100026.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	8.04	Baseline Smoothing	hassl	08/24/15 08:41
PCB-1254 Peak 2	8.28	Baseline Smoothing	hassl	08/24/15 08:41
PCB-1254 Peak 3	8.81	Baseline Smoothing	hassl	08/24/15 08:41
PCB-1254 Peak 4	9.08	Baseline Smoothing	hassl	08/24/15 08:41
PCB-1254 Peak 5	9.71	Baseline Smoothing	hassl	08/24/15 08:41

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54724-1	D-VB-F-1-2	Solid	08/25/2015 1030	08/26/2015 0930
240-54724-2	D-VB-F-2-2	Solid	08/25/2015 1032	08/26/2015 0930
240-54724-3	D-VB-F-3-2	Solid	08/25/2015 1034	08/26/2015 0930
240-54724-4	D-VB-F-4-2	Solid	08/25/2015 1036	08/26/2015 0930
240-54724-5	D-VB-F-5-2	Solid	08/25/2015 1038	08/26/2015 0930
240-54724-6	D-VB-F-7-2	Solid	08/25/2015 1040	08/26/2015 0930
240-54724-7	D-VB-F-8-2	Solid	08/25/2015 1042	08/26/2015 0930
240-54724-8	D-VB-F-9-2	Solid	08/25/2015 1044	08/26/2015 0930
240-54724-9	D-VS-F-1-1	Solid	08/25/2015 1046	08/26/2015 0930
240-54724-10	D-VS-F-2-1	Solid	08/25/2015 1048	08/26/2015 0930
240-54724-11	WC-DFRAC-082515	Water	08/25/2015 1020	08/26/2015 0930
240-54724-12	TB-082515	Water	08/25/2015 0000	08/26/2015 0930
240-54724-13	D-VS-D-1-1	Solid	08/25/2015 1420	08/26/2015 0930
240-54724-14	D-VS-D-2-1	Solid	08/25/2015 1422	08/26/2015 0930
240-54724-15	D-VS-D-3-1	Solid	08/25/2015 1424	08/26/2015 0930
240-54724-16	D-VS-D-4-1	Solid	08/25/2015 1426	08/26/2015 0930
240-54724-17	D-VB-D-1-2	Solid	08/25/2015 1428	08/26/2015 0930
240-54724-18	D-VB-D-2-2	Solid	08/25/2015 1430	08/26/2015 0930
240-54724-19	D-DUP07-082515	Solid	08/25/2015 0000	08/26/2015 0930

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-1	**D-VB-F-1-2**					
Acenaphthene		200		15	ug/Kg	8270D
Anthracene		260		15	ug/Kg	8270D
Benzo[a]anthracene		760		15	ug/Kg	8270D
Benzo[a]pyrene		760		15	ug/Kg	8270D
Benzo[b]fluoranthene		1000		15	ug/Kg	8270D
Benzo[g,h,i]perylene		500		15	ug/Kg	8270D
Benzo[k]fluoranthene		430		15	ug/Kg	8270D
Chrysene		840		15	ug/Kg	8270D
Dibenz(a,h)anthracene		120		15	ug/Kg	8270D
Fluoranthene		1700		15	ug/Kg	8270D
Fluorene		120		15	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		430		15	ug/Kg	8270D
Naphthalene		100		15	ug/Kg	8270D
Phenanthrene		1000		15	ug/Kg	8270D
Pyrene		1500		15	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54724-2	**D-VB-F-2-2**					
Acenaphthene		27		7.4	ug/Kg	8270D
Acenaphthylene		6.1	J	7.4	ug/Kg	8270D
Anthracene		57		7.4	ug/Kg	8270D
Benzo[a]anthracene		150		7.4	ug/Kg	8270D
Benzo[a]pyrene		160		7.4	ug/Kg	8270D
Benzo[b]fluoranthene		200		7.4	ug/Kg	8270D
Benzo[g,h,i]perylene		110		7.4	ug/Kg	8270D
Benzo[k]fluoranthene		83		7.4	ug/Kg	8270D
Chrysene		160		7.4	ug/Kg	8270D
Dibenz(a,h)anthracene		33		7.4	ug/Kg	8270D
Fluoranthene		270		7.4	ug/Kg	8270D
Fluorene		23		7.4	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		97		7.4	ug/Kg	8270D
Naphthalene		13		7.4	ug/Kg	8270D
Phenanthrene		190		7.4	ug/Kg	8270D
Pyrene		240		7.4	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-3	**D-VB-F-3-2**					
Anthracene		4.2	J	7.7	ug/Kg	8270D
Benzo[a]anthracene		14		7.7	ug/Kg	8270D
Benzo[a]pyrene		13		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		17		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		9.0		7.7	ug/Kg	8270D
Benzo[k]fluoranthene		8.0		7.7	ug/Kg	8270D
Chrysene		17		7.7	ug/Kg	8270D
Fluoranthene		35		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		7.6	J	7.7	ug/Kg	8270D
Phenanthrene		17		7.7	ug/Kg	8270D
Pyrene		33		7.7	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54724-4	**D-VB-F-4-2**					
Naphthalene		6.9	J	8.1	ug/Kg	8270D
Percent Solids		82		0.10	%	Moisture
Percent Moisture		18		0.10	%	Moisture
240-54724-5	**D-VB-F-5-2**					
Anthracene		4.5	J	7.8	ug/Kg	8270D
Benzo[a]anthracene		22		7.8	ug/Kg	8270D
Benzo[a]pyrene		25		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		39		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		19		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		14		7.8	ug/Kg	8270D
Chrysene		32		7.8	ug/Kg	8270D
Fluoranthene		41		7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		16		7.8	ug/Kg	8270D
Naphthalene		9.1		7.8	ug/Kg	8270D
Phenanthrene		15		7.8	ug/Kg	8270D
Pyrene		38		7.8	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-6	**D-VB-F-7-2**					
Anthracene		5.6	J	7.5	ug/Kg	8270D
Benzo[a]anthracene		25		7.5	ug/Kg	8270D
Benzo[a]pyrene		30		7.5	ug/Kg	8270D
Benzo[b]fluoranthene		37		7.5	ug/Kg	8270D
Benzo[g,h,i]perylene		26		7.5	ug/Kg	8270D
Benzo[k]fluoranthene		15		7.5	ug/Kg	8270D
Chrysene		26		7.5	ug/Kg	8270D
Dibenz(a,h)anthracene		5.7	J	7.5	ug/Kg	8270D
Fluoranthene		36		7.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		18		7.5	ug/Kg	8270D
Naphthalene		8.4		7.5	ug/Kg	8270D
Phenanthrene		19		7.5	ug/Kg	8270D
Pyrene		34		7.5	ug/Kg	8270D
Percent Solids		88		0.10	%	Moisture
Percent Moisture		12		0.10	%	Moisture
240-54724-7	**D-VB-F-8-2**					
Acenaphthene		9.2		7.8	ug/Kg	8270D
Acenaphthylene		4.4	J	7.8	ug/Kg	8270D
Anthracene		18		7.8	ug/Kg	8270D
Benzo[a]anthracene		54		7.8	ug/Kg	8270D
Benzo[a]pyrene		62		7.8	ug/Kg	8270D
Benzo[b]fluoranthene		78		7.8	ug/Kg	8270D
Benzo[g,h,i]perylene		39		7.8	ug/Kg	8270D
Benzo[k]fluoranthene		36		7.8	ug/Kg	8270D
Chrysene		67		7.8	ug/Kg	8270D
Dibenz(a,h)anthracene		12		7.8	ug/Kg	8270D
Fluoranthene		110		7.8	ug/Kg	8270D
Fluorene		8.5		7.8	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		35		7.8	ug/Kg	8270D
Naphthalene		49		7.8	ug/Kg	8270D
Phenanthrene		67		7.8	ug/Kg	8270D
Pyrene		92		7.8	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54724-8	**D-VB-F-9-2**					
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-9	**D-VS-F-1-1**					
Acenaphthene		7.5	J	8.1	ug/Kg	8270D
Acenaphthylene		6.2	J	8.1	ug/Kg	8270D
Anthracene		21		8.1	ug/Kg	8270D
Benzo[a]anthracene		100		8.1	ug/Kg	8270D
Benzo[a]pyrene		110		8.1	ug/Kg	8270D
Benzo[b]fluoranthene		150		8.1	ug/Kg	8270D
Benzo[g,h,i]perylene		83		8.1	ug/Kg	8270D
Benzo[k]fluoranthene		56		8.1	ug/Kg	8270D
Chrysene		110		8.1	ug/Kg	8270D
Dibenz(a,h)anthracene		21		8.1	ug/Kg	8270D
Fluoranthene		160		8.1	ug/Kg	8270D
Fluorene		6.8	J	8.1	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		71		8.1	ug/Kg	8270D
Naphthalene		10		8.1	ug/Kg	8270D
Phenanthrene		79		8.1	ug/Kg	8270D
Pyrene		150		8.1	ug/Kg	8270D
Percent Solids		82		0.10	%	Moisture
Percent Moisture		18		0.10	%	Moisture
240-54724-10	**D-VS-F-2-1**					
Benzo[a]anthracene		10		7.7	ug/Kg	8270D
Benzo[a]pyrene		9.6		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		19		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		17		7.7	ug/Kg	8270D
Benzo[k]fluoranthene		6.8	J	7.7	ug/Kg	8270D
Chrysene		13		7.7	ug/Kg	8270D
Fluoranthene		15		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		12		7.7	ug/Kg	8270D
Naphthalene		13		7.7	ug/Kg	8270D
Phenanthrene		6.4	J	7.7	ug/Kg	8270D
Pyrene		14		7.7	ug/Kg	8270D
Percent Solids		87		0.10	%	Moisture
Percent Moisture		13		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-11	**WC-DFRAC-082515**					
2-Butanone (MEK)		1.1	J B	10	ug/L	8260C
Acetone		6.2	J B	10	ug/L	8260C
Chloromethane		0.82	J	1.0	ug/L	8260C
Naphthalene		0.72	J	1.0	ug/L	8260C
Flashpoint		>200		1.00	Degrees F	1010A
TCLP						
Barium		0.016	J B	10	mg/L	6010B
Cadmium		0.00039	J B	0.10	mg/L	6010B
Chromium		0.0088	J B	0.50	mg/L	6010B
Lead		0.0053	J	0.50	mg/L	6010B
240-54724-13	**D-VS-D-1-1**					
Acenaphthene		71		7.9	ug/Kg	8270D
Anthracene		63		7.9	ug/Kg	8270D
Benzo[a]anthracene		53		7.9	ug/Kg	8270D
Benzo[a]pyrene		50		7.9	ug/Kg	8270D
Benzo[b]fluoranthene		71		7.9	ug/Kg	8270D
Benzo[g,h,i]perylene		32		7.9	ug/Kg	8270D
Benzo[k]fluoranthene		19		7.9	ug/Kg	8270D
Chrysene		56		7.9	ug/Kg	8270D
Dibenz(a,h)anthracene		8.7		7.9	ug/Kg	8270D
Fluoranthene		150		7.9	ug/Kg	8270D
Fluorene		71		7.9	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		27		7.9	ug/Kg	8270D
Naphthalene		190		7.9	ug/Kg	8270D
Phenanthrene		270		7.9	ug/Kg	8270D
Pyrene		120		7.9	ug/Kg	8270D
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-14	**D-VS-D-2-1**					
Acenaphthene		11		8.0	ug/Kg	8270D
Anthracene		7.6	J	8.0	ug/Kg	8270D
Benzo[a]anthracene		4.6	J	8.0	ug/Kg	8270D
Benzo[b]fluoranthene		5.9	J	8.0	ug/Kg	8270D
Chrysene		5.5	J	8.0	ug/Kg	8270D
Fluoranthene		16		8.0	ug/Kg	8270D
Fluorene		10		8.0	ug/Kg	8270D
Naphthalene		29		8.0	ug/Kg	8270D
Phenanthrene		40		8.0	ug/Kg	8270D
Pyrene		14		8.0	ug/Kg	8270D
Percent Solids		85		0.10	%	Moisture
Percent Moisture		15		0.10	%	Moisture
240-54724-15	**D-VS-D-3-1**					
Acenaphthene		92		8.5	ug/Kg	8270D
Anthracene		31		8.5	ug/Kg	8270D
Benzo[a]anthracene		21		8.5	ug/Kg	8270D
Benzo[a]pyrene		18		8.5	ug/Kg	8270D
Benzo[b]fluoranthene		24		8.5	ug/Kg	8270D
Benzo[g,h,i]perylene		11		8.5	ug/Kg	8270D
Benzo[k]fluoranthene		8.8		8.5	ug/Kg	8270D
Chrysene		23		8.5	ug/Kg	8270D
Fluoranthene		81		8.5	ug/Kg	8270D
Fluorene		96		8.5	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		11		8.5	ug/Kg	8270D
Naphthalene		150		8.5	ug/Kg	8270D
Phenanthrene		200		8.5	ug/Kg	8270D
Pyrene		64		8.5	ug/Kg	8270D
Percent Solids		78		0.10	%	Moisture
Percent Moisture		22		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-16	**D-VS-D-4-1**					
Acenaphthene		15		7.7	ug/Kg	8270D
Anthracene		4.5	J	7.7	ug/Kg	8270D
Benzo[a]anthracene		14		7.7	ug/Kg	8270D
Benzo[a]pyrene		13		7.7	ug/Kg	8270D
Benzo[b]fluoranthene		15		7.7	ug/Kg	8270D
Benzo[g,h,i]perylene		11		7.7	ug/Kg	8270D
Benzo[k]fluoranthene		7.8		7.7	ug/Kg	8270D
Chrysene		14		7.7	ug/Kg	8270D
Fluoranthene		22		7.7	ug/Kg	8270D
Fluorene		14		7.7	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		7.2	J	7.7	ug/Kg	8270D
Naphthalene		43		7.7	ug/Kg	8270D
Phenanthrene		31		7.7	ug/Kg	8270D
Pyrene		20		7.7	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54724-17	**D-VB-D-1-2**					
Benzo[a]anthracene		9.3		8.1	ug/Kg	8270D
Benzo[a]pyrene		9.8		8.1	ug/Kg	8270D
Benzo[b]fluoranthene		16		8.1	ug/Kg	8270D
Benzo[g,h,i]perylene		9.8		8.1	ug/Kg	8270D
Benzo[k]fluoranthene		4.8	J	8.1	ug/Kg	8270D
Chrysene		12		8.1	ug/Kg	8270D
Fluoranthene		17		8.1	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		6.5	J	8.1	ug/Kg	8270D
Naphthalene		13		8.1	ug/Kg	8270D
Phenanthrene		15		8.1	ug/Kg	8270D
Pyrene		15		8.1	ug/Kg	8270D
Percent Solids		81		0.10	%	Moisture
Percent Moisture		19		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-54724-18	**D-VB-D-2-2**					
Acenaphthene		86		31	ug/Kg	8270D
Acenaphthylene		82		31	ug/Kg	8270D
Anthracene		610		31	ug/Kg	8270D
Benzo[a]anthracene		2300		31	ug/Kg	8270D
Benzo[a]pyrene		1700		31	ug/Kg	8270D
Benzo[b]fluoranthene		2200		31	ug/Kg	8270D
Benzo[g,h,i]perylene		1100		31	ug/Kg	8270D
Benzo[k]fluoranthene		1000		31	ug/Kg	8270D
Chrysene		2100		31	ug/Kg	8270D
Dibenz(a,h)anthracene		290		31	ug/Kg	8270D
Fluoranthene		4200		31	ug/Kg	8270D
Fluorene		150		31	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		950		31	ug/Kg	8270D
Naphthalene		23	J	31	ug/Kg	8270D
Phenanthrene		2300		31	ug/Kg	8270D
Pyrene		3700		31	ug/Kg	8270D
Percent Solids		86		0.10	%	Moisture
Percent Moisture		14		0.10	%	Moisture
240-54724-19	**D-DUP07-082515**					
Acenaphthene		5.5	J	8.1	ug/Kg	8270D
Anthracene		13		8.1	ug/Kg	8270D
Benzo[a]anthracene		28		8.1	ug/Kg	8270D
Benzo[a]pyrene		23		8.1	ug/Kg	8270D
Benzo[b]fluoranthene		30		8.1	ug/Kg	8270D
Benzo[g,h,i]perylene		15		8.1	ug/Kg	8270D
Benzo[k]fluoranthene		17		8.1	ug/Kg	8270D
Chrysene		31		8.1	ug/Kg	8270D
Fluoranthene		72		8.1	ug/Kg	8270D
Fluorene		5.9	J	8.1	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		12		8.1	ug/Kg	8270D
Naphthalene		7.3	J	8.1	ug/Kg	8270D
Phenanthrene		55		8.1	ug/Kg	8270D
Pyrene		60		8.1	ug/Kg	8270D
Percent Solids		81		0.10	%	Moisture
Percent Moisture		19		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL CAN	SW846 8260C	
Purge and Trap	TAL CAN		SW846 5030C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL CAN	SW846 8082A	
Liquid-Liquid Extraction (Continuous)	TAL CAN		SW846 3520C
Metals (ICP)	TAL CAN	SW846 6010B	
TCLP Extraction	TAL CAN		SW846 1311
Preparation, Total Metals	TAL CAN		SW846 3010A
Mercury (CVAA)	TAL CAN	SW846 7470A	
TCLP Extraction	TAL CAN		SW846 1311
Preparation, Mercury	TAL CAN		SW846 7470A
Ignitability, Pensky-Martens Closed Cup Method	TAL CAN	SW846 1010A	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Method	Analyst	Analyst ID
SW846 8260C	Evans, Laura	LEE
SW846 8270D	Ulman, Mark	MRU
SW846 8082A	Bosworth, Heather M	HMB
SW846 6010B	Counts, Karen	KLC
SW846 7470A	Lecorchick, Willis A	WAL
SW846 1010A	Harshman, Tom	TPH
EPA Moisture	Burns, Jill	JMB

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: **WC-DFRAC-082515**

Lab Sample ID: 240-54724-11 Date Sampled: 08/25/2015 1020
Client Matrix: Water Date Received: 08/26/2015 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXJ8735.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1304			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1304				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.28	U	0.28	1.0
1,1,1-Trichloroethane	0.44	U	0.44	1.0
1,1,2,2-Tetrachloroethane	0.22	U	0.22	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	0.45	1.0
1,1-Dichloroethane	0.30	U	0.30	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
1,1-Dichloropropene	0.42	U	0.42	1.0
1,2,3-Trichlorobenzene	0.37	U	0.37	1.0
1,2,3-Trichloropropane	0.44	U	0.44	1.0
1,2,3-Trimethylbenzene	0.47	U	0.47	5.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.41	U	0.41	1.0
1,2-Dibromo-3-Chloropropane	0.82	U	0.82	2.0
1,2-Dichlorobenzene	0.25	U	0.25	1.0
1,2-Dichloroethane	0.23	U	0.23	1.0
1,2-Dichloropropane	0.25	U	0.25	1.0
1,3-Dichlorobenzene	0.19	U	0.19	1.0
1,3-Dichloropropane	0.19	U	0.19	1.0
1,4-Dichlorobenzene	0.27	U	0.27	1.0
2,2-Dichloropropane	0.26	U	0.26	1.0
2-Butanone (MEK)	1.1	J B	0.53	10
2-Chloroethyl vinyl ether	0.59	U F1	0.59	10
2-Chlorotoluene	0.40	U	0.40	1.0
2-Hexanone	0.48	U	0.48	10
4-Chlorotoluene	0.29	U	0.29	1.0
p-Isopropyltoluene	0.43	U	0.43	1.0
4-Methyl-2-pentanone (MIBK)	0.99	U	0.99	10
Acetone	6.2	J B	0.94	10
Benzene	0.35	U	0.35	1.0
Bromobenzene	0.35	U	0.35	1.0
Bromoform	0.56	U	0.56	1.0
Bromomethane	0.44	U	0.44	1.0
Carbon disulfide	0.38	U	0.38	1.0
Carbon tetrachloride	0.43	U	0.43	1.0
Chlorobenzene	0.25	U	0.25	1.0
Dibromochloromethane	0.43	U	0.43	1.0
Chloroethane	0.32	U	0.32	1.0
Chloroform	0.25	U	0.25	1.0
Chloromethane	0.82	J	0.44	1.0
cis-1,2-Dichloroethene	0.26	U	0.26	1.0
cis-1,3-Dichloropropene	0.46	U	0.46	1.0
Dibromomethane	0.42	U	0.42	1.0
Bromochloromethane	0.50	U	0.50	1.0
Dichlorodifluoromethane	0.32	U	0.32	1.0
Bromodichloromethane	0.29	U	0.29	1.0
tert-Butyl alcohol (TBA)	4.9	U	4.9	50

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: **WC-DFRAC-082515**

Lab Sample ID: 240-54724-11 Date Sampled: 08/25/2015 1020
Client Matrix: Water Date Received: 08/26/2015 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXJ8735.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1304			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1304				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	0.25	U	0.25	1.0
Hexachlorobutadiene	0.35	U	0.35	1.0
Diisopropyl ether	0.50	U	0.50	10
Isopropylbenzene	0.35	U	0.35	1.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Methylene Chloride	0.33	U	0.33	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.72	J	0.45	1.0
n-Butylbenzene	0.31	U	0.31	1.0
N-Propylbenzene	0.40	U	0.40	1.0
o-Xylene	0.25	U	0.25	1.0
sec-Butylbenzene	0.48	U	0.48	1.0
Styrene	0.45	U	0.45	1.0
Tert-amyl methyl ether	0.30	U	0.30	5.0
Ethyl t-butyl ether	0.23	U	0.23	5.0
Tetrachloroethene	0.31	U	0.31	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.30	U	0.30	1.0
trans-1,3-Dichloropropene	0.56	U	0.56	1.0
Trichloroethene	0.22	U	0.22	1.0
Trichlorofluoromethane	0.49	U	0.49	1.0
Vinyl acetate	0.41	U	0.41	2.0
Vinyl chloride	0.29	U	0.29	1.0
Xylenes, Total	0.52	U	0.52	2.0
tert-Butylbenzene	0.41	U	0.41	1.0
1,2-Dibromoethane	0.32	U	0.32	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	101		79 - 120
4-Bromofluorobenzene (Surr)	101		61 - 120
1,2-Dichloroethane-d4 (Surr)	98		78 - 125

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: **TB-082515**

Lab Sample ID: 240-54724-12 Date Sampled: 08/25/2015 0000
Client Matrix: Water Date Received: 08/26/2015 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXJ8734.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1241			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1241				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.28	U	0.28	1.0
1,1,1-Trichloroethane	0.44	U	0.44	1.0
1,1,2,2-Tetrachloroethane	0.22	U	0.22	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	0.45	1.0
1,1-Dichloroethane	0.30	U	0.30	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
1,1-Dichloropropene	0.42	U	0.42	1.0
1,2,3-Trichlorobenzene	0.37	U	0.37	1.0
1,2,3-Trichloropropane	0.44	U	0.44	1.0
1,2,3-Trimethylbenzene	0.47	U	0.47	5.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.41	U	0.41	1.0
1,2-Dibromo-3-Chloropropane	0.82	U	0.82	2.0
1,2-Dichlorobenzene	0.25	U	0.25	1.0
1,2-Dichloroethane	0.23	U	0.23	1.0
1,2-Dichloropropane	0.25	U	0.25	1.0
1,3-Dichlorobenzene	0.19	U	0.19	1.0
1,3-Dichloropropane	0.19	U	0.19	1.0
1,4-Dichlorobenzene	0.27	U	0.27	1.0
2,2-Dichloropropane	0.26	U	0.26	1.0
2-Butanone (MEK)	0.53	U	0.53	10
2-Chloroethyl vinyl ether	0.59	U	0.59	10
2-Chlorotoluene	0.40	U	0.40	1.0
2-Hexanone	0.48	U	0.48	10
4-Chlorotoluene	0.29	U	0.29	1.0
p-Isopropyltoluene	0.43	U	0.43	1.0
4-Methyl-2-pentanone (MIBK)	0.99	U	0.99	10
Acetone	0.94	U	0.94	10
Benzene	0.35	U	0.35	1.0
Bromobenzene	0.35	U	0.35	1.0
Bromoform	0.56	U	0.56	1.0
Bromomethane	0.44	U	0.44	1.0
Carbon disulfide	0.38	U	0.38	1.0
Carbon tetrachloride	0.43	U	0.43	1.0
Chlorobenzene	0.25	U	0.25	1.0
Dibromochloromethane	0.43	U	0.43	1.0
Chloroethane	0.32	U	0.32	1.0
Chloroform	0.25	U	0.25	1.0
Chloromethane	0.44	U	0.44	1.0
cis-1,2-Dichloroethene	0.26	U	0.26	1.0
cis-1,3-Dichloropropene	0.46	U	0.46	1.0
Dibromomethane	0.42	U	0.42	1.0
Bromochloromethane	0.50	U	0.50	1.0
Dichlorodifluoromethane	0.32	U	0.32	1.0
Bromodichloromethane	0.29	U	0.29	1.0
tert-Butyl alcohol (TBA)	4.9	U	4.9	50

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: **TB-082515**

Lab Sample ID: 240-54724-12 Date Sampled: 08/25/2015 0000
Client Matrix: Water Date Received: 08/26/2015 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXJ8734.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1241			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1241				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	0.25	U	0.25	1.0
Hexachlorobutadiene	0.35	U	0.35	1.0
Diisopropyl ether	0.50	U	0.50	10
Isopropylbenzene	0.35	U	0.35	1.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Methylene Chloride	0.33	U	0.33	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.45	U	0.45	1.0
n-Butylbenzene	0.31	U	0.31	1.0
N-Propylbenzene	0.40	U	0.40	1.0
o-Xylene	0.25	U	0.25	1.0
sec-Butylbenzene	0.48	U	0.48	1.0
Styrene	0.45	U	0.45	1.0
Tert-amyl methyl ether	0.30	U	0.30	5.0
Ethyl t-butyl ether	0.23	U	0.23	5.0
Tetrachloroethene	0.31	U	0.31	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.30	U	0.30	1.0
trans-1,3-Dichloropropene	0.56	U	0.56	1.0
Trichloroethene	0.22	U	0.22	1.0
Trichlorofluoromethane	0.49	U	0.49	1.0
Vinyl acetate	0.41	U	0.41	2.0
Vinyl chloride	0.29	U	0.29	1.0
Xylenes, Total	0.52	U	0.52	2.0
tert-Butylbenzene	0.41	U	0.41	1.0
1,2-Dibromoethane	0.32	U	0.32	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	101		79 - 120
4-Bromofluorobenzene (Surr)	102		61 - 120
1,2-Dichloroethane-d4 (Surr)	99		78 - 125

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-1-2

Lab Sample ID: 240-54724-1 Date Sampled: 08/25/2015 1030
Client Matrix: Solid % Moisture: 13.6 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829022.D
Dilution:	2.0			Initial Weight/Volume:	29.94 g
Analysis Date:	08/29/2015 1747			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		200		1.8	15
Acenaphthylene		0.81	U	0.81	15
Anthracene		260		1.8	15
Benzo[a]anthracene		760		1.5	15
Benzo[a]pyrene		760		1.5	15
Benzo[b]fluoranthene		1000		1.4	15
Benzo[g,h,i]perylene		500		0.81	15
Benzo[k]fluoranthene		430		1.6	15
Chrysene		840		2.6	15
Dibenz(a,h)anthracene		120		1.5	15
Fluoranthene		1700		1.3	15
Fluorene		120		1.2	15
Indeno[1,2,3-cd]pyrene		430		0.81	15
Naphthalene		100		1.9	15
Phenanthrene		1000		1.7	15
Pyrene		1500		1.0	15

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	82		36 - 110
Phenol-d5 (Surr)	74		26 - 110
Nitrobenzene-d5 (Surr)	64		20 - 110
2-Fluorophenol (Surr)	70		24 - 110
2-Fluorobiphenyl (Surr)	69		24 - 110
2,4,6-Tribromophenol (Surr)	18		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-2-2

Lab Sample ID: 240-54724-2 Date Sampled: 08/25/2015 1032
Client Matrix: Solid % Moisture: 11.6 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829023.D
Dilution:	1.0			Initial Weight/Volume:	30.40 g
Analysis Date:	08/29/2015 1812			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		27		0.85	7.4
Acenaphthylene		6.1	J	0.39	7.4
Anthracene		57		0.87	7.4
Benzo[a]anthracene		150		0.70	7.4
Benzo[a]pyrene		160		0.71	7.4
Benzo[b]fluoranthene		200		0.66	7.4
Benzo[g,h,i]perylene		110		0.39	7.4
Benzo[k]fluoranthene		83		0.76	7.4
Chrysene		160		1.2	7.4
Dibenz(a,h)anthracene		33		0.74	7.4
Fluoranthene		270		0.61	7.4
Fluorene		23		0.59	7.4
Indeno[1,2,3-cd]pyrene		97		0.39	7.4
Naphthalene		13		0.92	7.4
Phenanthrene		190		0.82	7.4
Pyrene		240		0.49	7.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	87		36 - 110
Phenol-d5 (Surr)	72		26 - 110
Nitrobenzene-d5 (Surr)	61		20 - 110
2-Fluorophenol (Surr)	68		24 - 110
2-Fluorobiphenyl (Surr)	71		24 - 110
2,4,6-Tribromophenol (Surr)	33		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-3-2

Lab Sample ID: 240-54724-3 Date Sampled: 08/25/2015 1034
Client Matrix: Solid % Moisture: 14.1 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829019.D
Dilution:	1.0			Initial Weight/Volume:	30.22 g
Analysis Date:	08/29/2015 1634			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.88	U	0.88	7.7
Acenaphthylene		0.40	U	0.40	7.7
Anthracene		4.2	J	0.90	7.7
Benzo[a]anthracene		14		0.73	7.7
Benzo[a]pyrene		13		0.74	7.7
Benzo[b]fluoranthene		17		0.68	7.7
Benzo[g,h,i]perylene		9.0		0.40	7.7
Benzo[k]fluoranthene		8.0		0.79	7.7
Chrysene		17		1.3	7.7
Dibenz(a,h)anthracene		0.76	U	0.76	7.7
Fluoranthene		35		0.64	7.7
Fluorene		0.61	U	0.61	7.7
Indeno[1,2,3-cd]pyrene		7.6	J	0.40	7.7
Naphthalene		0.95	U	0.95	7.7
Phenanthrene		17		0.84	7.7
Pyrene		33		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	96		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	70		20 - 110
2-Fluorophenol (Surr)	83		24 - 110
2-Fluorobiphenyl (Surr)	70		24 - 110
2,4,6-Tribromophenol (Surr)	40		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-4-2

Lab Sample ID: 240-54724-4 Date Sampled: 08/25/2015 1036
Client Matrix: Solid % Moisture: 17.5 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829020.D
Dilution:	1.0			Initial Weight/Volume:	30.00 g
Analysis Date:	08/29/2015 1659			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.92	U	0.92	8.1
Acenaphthylene		0.42	U	0.42	8.1
Anthracene		0.95	U	0.95	8.1
Benzo[a]anthracene		0.76	U	0.76	8.1
Benzo[a]pyrene		0.78	U	0.78	8.1
Benzo[b]fluoranthene		0.72	U	0.72	8.1
Benzo[g,h,i]perylene		0.42	U	0.42	8.1
Benzo[k]fluoranthene		0.82	U	0.82	8.1
Chrysene		1.3	U	1.3	8.1
Dibenz(a,h)anthracene		0.80	U	0.80	8.1
Fluoranthene		0.67	U	0.67	8.1
Fluorene		0.64	U	0.64	8.1
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	8.1
Naphthalene		6.9	J	0.99	8.1
Phenanthrene		0.89	U	0.89	8.1
Pyrene		0.53	U	0.53	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	91		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	72		20 - 110
2-Fluorophenol (Surr)	83		24 - 110
2-Fluorobiphenyl (Surr)	71		24 - 110
2,4,6-Tribromophenol (Surr)	34		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-5-2

Lab Sample ID: 240-54724-5 Date Sampled: 08/25/2015 1038
Client Matrix: Solid % Moisture: 15.5 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829024.D
Dilution:	1.0			Initial Weight/Volume:	30.28 g
Analysis Date:	08/29/2015 1836			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.89	U	0.89	7.8
Acenaphthylene		0.41	U	0.41	7.8
Anthracene		4.5	J	0.91	7.8
Benzo[a]anthracene		22		0.74	7.8
Benzo[a]pyrene		25		0.75	7.8
Benzo[b]fluoranthene		39		0.69	7.8
Benzo[g,h,i]perylene		19		0.41	7.8
Benzo[k]fluoranthene		14		0.80	7.8
Chrysene		32		1.3	7.8
Dibenz(a,h)anthracene		0.77	U	0.77	7.8
Fluoranthene		41		0.65	7.8
Fluorene		0.62	U	0.62	7.8
Indeno[1,2,3-cd]pyrene		16		0.41	7.8
Naphthalene		9.1		0.96	7.8
Phenanthrene		15		0.86	7.8
Pyrene		38		0.52	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	92		36 - 110
Phenol-d5 (Surr)	75		26 - 110
Nitrobenzene-d5 (Surr)	58		20 - 110
2-Fluorophenol (Surr)	68		24 - 110
2-Fluorobiphenyl (Surr)	68		24 - 110
2,4,6-Tribromophenol (Surr)	22		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-7-2

Lab Sample ID: 240-54724-6 Date Sampled: 08/25/2015 1040
Client Matrix: Solid % Moisture: 12.1 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829025.D
Dilution:	1.0			Initial Weight/Volume:	30.40 g
Analysis Date:	08/29/2015 1900			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.85	U	0.85	7.5
Acenaphthylene		0.39	U	0.39	7.5
Anthracene		5.6	J	0.88	7.5
Benzo[a]anthracene		25		0.71	7.5
Benzo[a]pyrene		30		0.72	7.5
Benzo[b]fluoranthene		37		0.66	7.5
Benzo[g,h,i]perylene		26		0.39	7.5
Benzo[k]fluoranthene		15		0.76	7.5
Chrysene		26		1.2	7.5
Dibenz(a,h)anthracene		5.7	J	0.74	7.5
Fluoranthene		36		0.62	7.5
Fluorene		0.60	U	0.60	7.5
Indeno[1,2,3-cd]pyrene		18		0.39	7.5
Naphthalene		8.4		0.92	7.5
Phenanthrene		19		0.82	7.5
Pyrene		34		0.49	7.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	80		36 - 110
Phenol-d5 (Surr)	76		26 - 110
Nitrobenzene-d5 (Surr)	56		20 - 110
2-Fluorophenol (Surr)	68		24 - 110
2-Fluorobiphenyl (Surr)	65		24 - 110
2,4,6-Tribromophenol (Surr)	20		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-8-2

Lab Sample ID: 240-54724-7 Date Sampled: 08/25/2015 1042
Client Matrix: Solid % Moisture: 14.5 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829026.D
Dilution:	1.0			Initial Weight/Volume:	29.98 g
Analysis Date:	08/29/2015 1924			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.2		0.89	7.8
Acenaphthylene		4.4	J	0.41	7.8
Anthracene		18		0.91	7.8
Benzo[a]anthracene		54		0.74	7.8
Benzo[a]pyrene		62		0.75	7.8
Benzo[b]fluoranthene		78		0.69	7.8
Benzo[g,h,i]perylene		39		0.41	7.8
Benzo[k]fluoranthene		36		0.80	7.8
Chrysene		67		1.3	7.8
Dibenz(a,h)anthracene		12		0.77	7.8
Fluoranthene		110		0.64	7.8
Fluorene		8.5		0.62	7.8
Indeno[1,2,3-cd]pyrene		35		0.41	7.8
Naphthalene		49		0.96	7.8
Phenanthrene		67		0.85	7.8
Pyrene		92		0.52	7.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	89		36 - 110
Phenol-d5 (Surr)	79		26 - 110
Nitrobenzene-d5 (Surr)	60		20 - 110
2-Fluorophenol (Surr)	70		24 - 110
2-Fluorobiphenyl (Surr)	68		24 - 110
2,4,6-Tribromophenol (Surr)	41		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-F-9-2

Lab Sample ID: 240-54724-8 Date Sampled: 08/25/2015 1044
Client Matrix: Solid % Moisture: 16.4 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829015.D
Dilution:	1.0			Initial Weight/Volume:	30.31 g
Analysis Date:	08/29/2015 1457			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.90	U	0.90	7.9
Acenaphthylene		0.41	U	0.41	7.9
Anthracene		0.92	U	0.92	7.9
Benzo[a]anthracene		0.75	U	0.75	7.9
Benzo[a]pyrene		0.76	U	0.76	7.9
Benzo[b]fluoranthene		0.70	U	0.70	7.9
Benzo[g,h,i]perylene		0.41	U	0.41	7.9
Benzo[k]fluoranthene		0.81	U	0.81	7.9
Chrysene		1.3	U	1.3	7.9
Dibenz(a,h)anthracene		0.78	U	0.78	7.9
Fluoranthene		0.65	U	0.65	7.9
Fluorene		0.63	U	0.63	7.9
Indeno[1,2,3-cd]pyrene		0.41	U	0.41	7.9
Naphthalene		0.97	U	0.97	7.9
Phenanthrene		0.86	U	0.86	7.9
Pyrene		0.52	U	0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	94		36 - 110
Phenol-d5 (Surr)	83		26 - 110
Nitrobenzene-d5 (Surr)	70		20 - 110
2-Fluorophenol (Surr)	79		24 - 110
2-Fluorobiphenyl (Surr)	70		24 - 110
2,4,6-Tribromophenol (Surr)	54		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VS-F-1-1

Lab Sample ID: 240-54724-9 Date Sampled: 08/25/2015 1046
Client Matrix: Solid % Moisture: 18.2 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829027.D
Dilution:	1.0			Initial Weight/Volume:	30.09 g
Analysis Date:	08/29/2015 1949			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		7.5	J	0.93	8.1
Acenaphthylene		6.2	J	0.43	8.1
Anthracene		21		0.95	8.1
Benzo[a]anthracene		100		0.77	8.1
Benzo[a]pyrene		110		0.78	8.1
Benzo[b]fluoranthene		150		0.72	8.1
Benzo[g,h,i]perylene		83		0.43	8.1
Benzo[k]fluoranthene		56		0.83	8.1
Chrysene		110		1.3	8.1
Dibenz(a,h)anthracene		21		0.80	8.1
Fluoranthene		160		0.67	8.1
Fluorene		6.8	J	0.65	8.1
Indeno[1,2,3-cd]pyrene		71		0.43	8.1
Naphthalene		10		1.0	8.1
Phenanthrene		79		0.89	8.1
Pyrene		150		0.54	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	90		36 - 110
Phenol-d5 (Surr)	78		26 - 110
Nitrobenzene-d5 (Surr)	62		20 - 110
2-Fluorophenol (Surr)	72		24 - 110
2-Fluorobiphenyl (Surr)	69		24 - 110
2,4,6-Tribromophenol (Surr)	23		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VS-F-2-1

Lab Sample ID: 240-54724-10 Date Sampled: 08/25/2015 1048
Client Matrix: Solid % Moisture: 13.3 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829016.D
Dilution:	1.0			Initial Weight/Volume:	29.87 g
Analysis Date:	08/29/2015 1522			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.88	U	0.88	7.7
Acenaphthylene		0.41	U	0.41	7.7
Anthracene		0.90	U	0.90	7.7
Benzo[a]anthracene		10		0.73	7.7
Benzo[a]pyrene		9.6		0.74	7.7
Benzo[b]fluoranthene		19		0.68	7.7
Benzo[g,h,i]perylene		17		0.41	7.7
Benzo[k]fluoranthene		6.8	J	0.79	7.7
Chrysene		13		1.3	7.7
Dibenz(a,h)anthracene		0.76	U	0.76	7.7
Fluoranthene		15		0.64	7.7
Fluorene		0.61	U	0.61	7.7
Indeno[1,2,3-cd]pyrene		12		0.41	7.7
Naphthalene		13		0.95	7.7
Phenanthrene		6.4	J	0.85	7.7
Pyrene		14		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	86		36 - 110
Phenol-d5 (Surr)	76		26 - 110
Nitrobenzene-d5 (Surr)	64		20 - 110
2-Fluorophenol (Surr)	71		24 - 110
2-Fluorobiphenyl (Surr)	65		24 - 110
2,4,6-Tribromophenol (Surr)	27		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VS-D-1-1

Lab Sample ID: 240-54724-13 Date Sampled: 08/25/2015 1420
Client Matrix: Solid % Moisture: 15.9 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829017.D
Dilution:	1.0			Initial Weight/Volume:	29.95 g
Analysis Date:	08/29/2015 1546			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		71		0.91	7.9
Acenaphthylene		0.42	U	0.42	7.9
Anthracene		63		0.93	7.9
Benzo[a]anthracene		53		0.75	7.9
Benzo[a]pyrene		50		0.76	7.9
Benzo[b]fluoranthene		71		0.70	7.9
Benzo[g,h,i]perylene		32		0.42	7.9
Benzo[k]fluoranthene		19		0.81	7.9
Chrysene		56		1.3	7.9
Dibenz(a,h)anthracene		8.7		0.79	7.9
Fluoranthene		150		0.66	7.9
Fluorene		71		0.63	7.9
Indeno[1,2,3-cd]pyrene		27		0.42	7.9
Naphthalene		190		0.98	7.9
Phenanthrene		270		0.87	7.9
Pyrene		120		0.52	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	86		36 - 110
Phenol-d5 (Surr)	81		26 - 110
Nitrobenzene-d5 (Surr)	70		20 - 110
2-Fluorophenol (Surr)	78		24 - 110
2-Fluorobiphenyl (Surr)	70		24 - 110
2,4,6-Tribromophenol (Surr)	36		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VS-D-2-1

Lab Sample ID: 240-54724-14 Date Sampled: 08/25/2015 1422
Client Matrix: Solid % Moisture: 15.4 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829018.D
Dilution:	1.0			Initial Weight/Volume:	29.66 g
Analysis Date:	08/29/2015 1610			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11		0.91	8.0
Acenaphthylene		0.42	U	0.42	8.0
Anthracene		7.6	J	0.93	8.0
Benzo[a]anthracene		4.6	J	0.75	8.0
Benzo[a]pyrene		0.77	U	0.77	8.0
Benzo[b]fluoranthene		5.9	J	0.71	8.0
Benzo[g,h,i]perylene		0.42	U	0.42	8.0
Benzo[k]fluoranthene		0.81	U	0.81	8.0
Chrysene		5.5	J	1.3	8.0
Dibenz(a,h)anthracene		0.79	U	0.79	8.0
Fluoranthene		16		0.66	8.0
Fluorene		10		0.63	8.0
Indeno[1,2,3-cd]pyrene		0.42	U	0.42	8.0
Naphthalene		29		0.98	8.0
Phenanthrene		40		0.87	8.0
Pyrene		14		0.53	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	93		36 - 110
Phenol-d5 (Surr)	87		26 - 110
Nitrobenzene-d5 (Surr)	72		20 - 110
2-Fluorophenol (Surr)	83		24 - 110
2-Fluorobiphenyl (Surr)	72		24 - 110
2,4,6-Tribromophenol (Surr)	46		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VS-D-3-1

Lab Sample ID: 240-54724-15 Date Sampled: 08/25/2015 1424
Client Matrix: Solid % Moisture: 21.6 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829014.D
Dilution:	1.0			Initial Weight/Volume:	29.90 g
Analysis Date:	08/29/2015 1433			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		92		0.97	8.5
Acenaphthylene		0.45	U	0.45	8.5
Anthracene		31		1.0	8.5
Benzo[a]anthracene		21		0.81	8.5
Benzo[a]pyrene		18		0.82	8.5
Benzo[b]fluoranthene		24		0.76	8.5
Benzo[g,h,i]perylene		11		0.45	8.5
Benzo[k]fluoranthene		8.8		0.87	8.5
Chrysene		23		1.4	8.5
Dibenz(a,h)anthracene		0.84	U	0.84	8.5
Fluoranthene		81		0.70	8.5
Fluorene		96		0.68	8.5
Indeno[1,2,3-cd]pyrene		11		0.45	8.5
Naphthalene		150		1.0	8.5
Phenanthrene		200		0.93	8.5
Pyrene		64		0.56	8.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	84		36 - 110
Phenol-d5 (Surr)	81		26 - 110
Nitrobenzene-d5 (Surr)	69		20 - 110
2-Fluorophenol (Surr)	76		24 - 110
2-Fluorobiphenyl (Surr)	69		24 - 110
2,4,6-Tribromophenol (Surr)	41		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VS-D-4-1

Lab Sample ID: 240-54724-16 Date Sampled: 08/25/2015 1426
Client Matrix: Solid % Moisture: 14.4 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829013.D
Dilution:	1.0			Initial Weight/Volume:	30.23 g
Analysis Date:	08/29/2015 1409			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		15		0.88	7.7
Acenaphthylene		0.41	U	0.41	7.7
Anthracene		4.5	J	0.90	7.7
Benzo[a]anthracene		14		0.73	7.7
Benzo[a]pyrene		13		0.74	7.7
Benzo[b]fluoranthene		15		0.68	7.7
Benzo[g,h,i]perylene		11		0.41	7.7
Benzo[k]fluoranthene		7.8		0.79	7.7
Chrysene		14		1.3	7.7
Dibenz(a,h)anthracene		0.77	U	0.77	7.7
Fluoranthene		22		0.64	7.7
Fluorene		14		0.61	7.7
Indeno[1,2,3-cd]pyrene		7.2	J	0.41	7.7
Naphthalene		43		0.95	7.7
Phenanthrene		31		0.85	7.7
Pyrene		20		0.51	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	81		36 - 110
Phenol-d5 (Surr)	81		26 - 110
Nitrobenzene-d5 (Surr)	66		20 - 110
2-Fluorophenol (Surr)	76		24 - 110
2-Fluorobiphenyl (Surr)	65		24 - 110
2,4,6-Tribromophenol (Surr)	43		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-VB-D-1-2

Lab Sample ID: 240-54724-17 Date Sampled: 08/25/2015 1428
Client Matrix: Solid % Moisture: 18.6 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195059	Lab File ID:	50829010.D
Dilution:	1.0			Initial Weight/Volume:	30.26 g
Analysis Date:	08/29/2015 1256			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		0.93	U	0.93	8.1
Acenaphthylene		0.43	U	0.43	8.1
Anthracene		0.95	U	0.95	8.1
Benzo[a]anthracene		9.3		0.77	8.1
Benzo[a]pyrene		9.8		0.78	8.1
Benzo[b]fluoranthene		16		0.72	8.1
Benzo[g,h,i]perylene		9.8		0.43	8.1
Benzo[k]fluoranthene		4.8	J	0.83	8.1
Chrysene		12		1.3	8.1
Dibenz(a,h)anthracene		0.80	U	0.80	8.1
Fluoranthene		17		0.67	8.1
Fluorene		0.65	U	0.65	8.1
Indeno[1,2,3-cd]pyrene		6.5	J	0.43	8.1
Naphthalene		13		1.0	8.1
Phenanthrene		15		0.89	8.1
Pyrene		15		0.54	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	87		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	69		20 - 110
2-Fluorophenol (Surr)	80		24 - 110
2-Fluorobiphenyl (Surr)	69		24 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 110

Client Sample ID: **D-VB-D-2-2**

Lab Sample ID: 240-54724-18 Date Sampled: 08/25/2015 1430
Client Matrix: Solid % Moisture: 14.4 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195060	Lab File ID:	50829021.D
Dilution:	4.0			Initial Weight/Volume:	29.77 g
Analysis Date:	08/29/2015 1723			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0819			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		86		3.6	31
Acenaphthylene		82		1.6	31
Anthracene		610		3.7	31
Benzo[a]anthracene		2300		3.0	31
Benzo[a]pyrene		1700		3.0	31
Benzo[b]fluoranthene		2200		2.8	31
Benzo[g,h,i]perylene		1100		1.6	31
Benzo[k]fluoranthene		1000		3.2	31
Chrysene		2100		5.2	31
Dibenz(a,h)anthracene		290		3.1	31
Fluoranthene		4200		2.6	31
Fluorene		150		2.5	31
Indeno[1,2,3-cd]pyrene		950		1.6	31
Naphthalene		23	J	3.9	31
Phenanthrene		2300		3.4	31
Pyrene		3700		2.1	31

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	94		36 - 110
Phenol-d5 (Surr)	84		26 - 110
Nitrobenzene-d5 (Surr)	78		20 - 110
2-Fluorophenol (Surr)	84		24 - 110
2-Fluorobiphenyl (Surr)	80		24 - 110
2,4,6-Tribromophenol (Surr)	32		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: D-DUP07-082515

Lab Sample ID: 240-54724-19 Date Sampled: 08/25/2015 0000
Client Matrix: Solid % Moisture: 18.7 Date Received: 08/26/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-195060	Lab File ID:	50829007.D
Dilution:	1.0			Initial Weight/Volume:	30.20 g
Analysis Date:	08/29/2015 1143			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0819			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		5.5	J	0.93	8.1
Acenaphthylene		0.43	U	0.43	8.1
Anthracene		13		0.95	8.1
Benzo[a]anthracene		28		0.77	8.1
Benzo[a]pyrene		23		0.78	8.1
Benzo[b]fluoranthene		30		0.72	8.1
Benzo[g,h,i]perylene		15		0.43	8.1
Benzo[k]fluoranthene		17		0.83	8.1
Chrysene		31		1.3	8.1
Dibenz(a,h)anthracene		0.81	U	0.81	8.1
Fluoranthene		72		0.67	8.1
Fluorene		5.9	J	0.65	8.1
Indeno[1,2,3-cd]pyrene		12		0.43	8.1
Naphthalene		7.3	J	1.0	8.1
Phenanthrene		55		0.89	8.1
Pyrene		60		0.54	8.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	96		36 - 110
Phenol-d5 (Surr)	85		26 - 110
Nitrobenzene-d5 (Surr)	74		20 - 110
2-Fluorophenol (Surr)	79		24 - 110
2-Fluorobiphenyl (Surr)	74		24 - 110
2,4,6-Tribromophenol (Surr)	52		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: **WC-DFRAC-082515**

Lab Sample ID: 240-54724-11 Date Sampled: 08/25/2015 1020
Client Matrix: Water Date Received: 08/26/2015 0930

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-195464	Instrument ID:	A2HP11
Prep Method:	3520C	Prep Batch:	240-195418	Initial Weight/Volume:	790 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	08/30/2015 1915			Injection Volume:	1 uL
Prep Date:	08/29/2015 0945			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aroclor-1016	0.22	U	0.22	0.63
Aroclor-1221	0.16	U	0.16	0.63
Aroclor-1232	0.20	U	0.20	0.63
Aroclor-1242	0.28	U	0.28	0.63
Aroclor-1248	0.13	U	0.13	0.63
Aroclor-1254	0.20	U	0.20	0.63
Aroclor-1260	0.22	U	0.22	0.63

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	47		21 - 124
DCB Decachlorobiphenyl	21		10 - 131

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Client Sample ID: **WC-DFRAC-082515**

Lab Sample ID: 240-54724-11 Date Sampled: 08/25/2015 1020
Client Matrix: Water Date Received: 08/26/2015 0930

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	240-195529	Instrument ID:	I12
Prep Method:	3010A	Prep Batch:	240-195294	Lab File ID:	I12083115A.asc
Dilution:	1.0	Leach Batch:	240-195274	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 0734			Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 0936				
Leach Date:	08/27/2015 1730				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	0.0029	U	0.0029	0.50
Barium	0.016	J B	0.0010	10
Cadmium	0.00039	J B	0.00014	0.10
Chromium	0.0088	J B	0.00055	0.50
Lead	0.0053	J	0.0019	0.50
Selenium	0.0040	U	0.0040	0.25
Silver	0.00092	U	0.00092	0.50

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	240-195593	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-195365	Lab File ID:	083115AH1.PRN
Dilution:	1.0	Leach Batch:	240-195274	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 1214			Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 1400				
Leach Date:	08/27/2015 1730				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.000090	U	0.000090	0.0020

General Chemistry

Client Sample ID: **D-VB-F-1-2**

Lab Sample ID: 240-54724-1 Date Sampled: 08/25/2015 1030
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-2-2**

Lab Sample ID: 240-54724-2 Date Sampled: 08/25/2015 1032
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-3-2**

Lab Sample ID: 240-54724-3 Date Sampled: 08/25/2015 1034
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-4-2**

Lab Sample ID: 240-54724-4 Date Sampled: 08/25/2015 1036
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1637						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-5-2**

Lab Sample ID: 240-54724-5 Date Sampled: 08/25/2015 1038
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-7-2**

Lab Sample ID: 240-54724-6 Date Sampled: 08/25/2015 1040
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	88		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-8-2**

Lab Sample ID: 240-54724-7 Date Sampled: 08/25/2015 1042
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-F-9-2**

Lab Sample ID: 240-54724-8 Date Sampled: 08/25/2015 1044
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-F-1-1**

Lab Sample ID: 240-54724-9 Date Sampled: 08/25/2015 1046
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-F-2-1**

Lab Sample ID: 240-54724-10 Date Sampled: 08/25/2015 1048
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **WC-DFRAC-082515**

Lab Sample ID: 240-54724-11 Date Sampled: 08/25/2015 1020
Client Matrix: Water Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Flashpoint	>200		Degrees F	1.00	1.00	1.0	1010A

Analysis Batch: 240-195256 Analysis Date: 08/28/2015 0832

General Chemistry

Client Sample ID: **D-VS-D-1-1**

Lab Sample ID: 240-54724-13 Date Sampled: 08/25/2015 1420
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-D-2-1**

Lab Sample ID: 240-54724-14 Date Sampled: 08/25/2015 1422
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-D-3-1**

Lab Sample ID: 240-54724-15 Date Sampled: 08/25/2015 1424
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	78		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	22		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VS-D-4-1**

Lab Sample ID: 240-54724-16 Date Sampled: 08/25/2015 1426
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-D-1-2**

Lab Sample ID: 240-54724-17 Date Sampled: 08/25/2015 1428
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-VB-D-2-2**

Lab Sample ID: 240-54724-18 Date Sampled: 08/25/2015 1430
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

General Chemistry

Client Sample ID: **D-DUP07-082515**

Lab Sample ID: 240-54724-19 Date Sampled: 08/25/2015 0000
Client Matrix: Solid Date Received: 08/26/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-194999	Analysis Date: 08/26/2015 1701						DryWt Corrected: N

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-54724-11	WC-DFRAC-082515	101	98	95	101
240-54724-12	TB-082515	101	99	99	102
MB 240-195083/7		96	94	87	92
LCS 240-195083/4		103	102	95	102
240-54724-11 MS	WC-DFRAC-082515 MS	99	102	97	105
240-54724-11 MSD	WC-DFRAC-082515 MSD	94	92	91	104

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	79-120
DCA = 1,2-Dichloroethane-d4 (Surr)	78-125
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	61-120

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-54724-1	D-VB-F-1-2	70	74	64	69	18	82
240-54724-2	D-VB-F-2-2	68	72	61	71	33	87
240-54724-3	D-VB-F-3-2	83	85	70	70	40	96
240-54724-4	D-VB-F-4-2	83	85	72	71	34	91
240-54724-5	D-VB-F-5-2	68	75	58	68	22	92
240-54724-6	D-VB-F-7-2	68	76	56	65	20	80
240-54724-7	D-VB-F-8-2	70	79	60	68	41	89
240-54724-8	D-VB-F-9-2	79	83	70	70	54	94
240-54724-9	D-VS-F-1-1	72	78	62	69	23	90
240-54724-10	D-VS-F-2-1	71	76	64	65	27	86
240-54724-13	D-VS-D-1-1	78	81	70	70	36	86
240-54724-14	D-VS-D-2-1	83	87	72	72	46	93
240-54724-15	D-VS-D-3-1	76	81	69	69	41	84
240-54724-16	D-VS-D-4-1	76	81	66	65	43	81
240-54724-17	D-VB-D-1-2	80	85	69	69	44	87
240-54724-18	D-VB-D-2-2	84	84	78	80	32	94
240-54724-19	D-DUP07-082515	79	85	74	74	52	96
MB 240-195059/23-A		82	91	79	79	41	105
MB 240-195060/5-A		70	81	70	71	18	88
LCS 240-195059/24-A		87	92	83	74	35	89
LCS 240-195060/6-A		81	82	76	69	35	86
240-54724-17 MS	D-VB-D-1-2 MS	76	79	71	67	46	77
240-54724-19 MS	D-DUP07-082515 MS	63	67	59	59	60	90
240-54724-17 MSD	D-VB-D-1-2 MSD	75	80	69	66	50	87
240-54724-19 MSD	D-DUP07-082515 MSD	82	85	79	73	58	92

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCB1 %Rec
240-54724-11	WC-DFRAC-082515	47	21
MB 240-195418/2-A		58	76
LCS 240-195418/3-A		62	64

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	21-124
DCB = DCB Decachlorobiphenyl	10-131

Method Blank - Batch: 240-195083

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 240-195083/7	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8733.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1218	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1218				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.28	U	0.28	1.0
1,1,1-Trichloroethane	0.44	U	0.44	1.0
1,1,2,2-Tetrachloroethane	0.22	U	0.22	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	0.45	1.0
1,1-Dichloroethane	0.30	U	0.30	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
1,1-Dichloropropene	0.42	U	0.42	1.0
1,2,3-Trichlorobenzene	0.37	U	0.37	1.0
1,2,3-Trichloropropane	0.44	U	0.44	1.0
1,2,3-Trimethylbenzene	0.47	U	0.47	5.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.41	U	0.41	1.0
1,2-Dibromo-3-Chloropropane	0.82	U	0.82	2.0
1,2-Dichlorobenzene	0.25	U	0.25	1.0
1,2-Dichloroethane	0.23	U	0.23	1.0
1,2-Dichloropropane	0.25	U	0.25	1.0
1,3-Dichlorobenzene	0.19	U	0.19	1.0
1,3-Dichloropropane	0.19	U	0.19	1.0
1,4-Dichlorobenzene	0.27	U	0.27	1.0
2,2-Dichloropropane	0.26	U	0.26	1.0
2-Butanone (MEK)	1.94	J	0.53	10
2-Chloroethyl vinyl ether	0.59	U	0.59	10
2-Chlorotoluene	0.40	U	0.40	1.0
2-Hexanone	0.48	U	0.48	10
4-Chlorotoluene	0.29	U	0.29	1.0
p-Isopropyltoluene	0.43	U	0.43	1.0
4-Methyl-2-pentanone (MIBK)	0.99	U	0.99	10
Acetone	9.12	J	0.94	10
Benzene	0.35	U	0.35	1.0
Bromobenzene	0.35	U	0.35	1.0
Bromoform	0.56	U	0.56	1.0
Bromomethane	0.44	U	0.44	1.0
Carbon disulfide	0.38	U	0.38	1.0
Carbon tetrachloride	0.43	U	0.43	1.0
Chlorobenzene	0.25	U	0.25	1.0
Dibromochloromethane	0.43	U	0.43	1.0
Chloroethane	0.32	U	0.32	1.0
Chloroform	0.25	U	0.25	1.0
Chloromethane	0.44	U	0.44	1.0
cis-1,2-Dichloroethene	0.26	U	0.26	1.0
cis-1,3-Dichloropropene	0.46	U	0.46	1.0
Dibromomethane	0.42	U	0.42	1.0
Bromochloromethane	0.50	U	0.50	1.0
Dichlorodifluoromethane	0.32	U	0.32	1.0
Bromodichloromethane	0.29	U	0.29	1.0

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Method Blank - Batch: 240-195083

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 240-195083/7	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8733.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1218	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1218				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol (TBA)	4.9	U	4.9	50
Ethylbenzene	0.25	U	0.25	1.0
Hexachlorobutadiene	0.35	U	0.35	1.0
Diisopropyl ether	0.50	U	0.50	10
Isopropylbenzene	0.35	U	0.35	1.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Methylene Chloride	0.33	U	0.33	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.45	U	0.45	1.0
n-Butylbenzene	0.31	U	0.31	1.0
N-Propylbenzene	0.40	U	0.40	1.0
o-Xylene	0.25	U	0.25	1.0
sec-Butylbenzene	0.48	U	0.48	1.0
Styrene	0.45	U	0.45	1.0
Tert-amyl methyl ether	0.30	U	0.30	5.0
Ethyl t-butyl ether	0.23	U	0.23	5.0
Tetrachloroethene	0.31	U	0.31	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.30	U	0.30	1.0
trans-1,3-Dichloropropene	0.56	U	0.56	1.0
Trichloroethene	0.22	U	0.22	1.0
Trichlorofluoromethane	0.49	U	0.49	1.0
Vinyl acetate	0.41	U	0.41	2.0
Vinyl chloride	0.29	U	0.29	1.0
Xylenes, Total	0.52	U	0.52	2.0
tert-Butylbenzene	0.41	U	0.41	1.0
1,2-Dibromoethane	0.32	U	0.32	1.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	87	80 - 120
Dibromofluoromethane (Surr)	96	79 - 120
4-Bromofluorobenzene (Surr)	92	61 - 120
1,2-Dichloroethane-d4 (Surr)	94	78 - 125

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Control Sample - Batch: 240-195083

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 240-195083/4	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8729.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1048	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1048				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	10.0	10.8	108	80 - 120	
1,1,1-Trichloroethane	10.0	10.5	105	77 - 123	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	71 - 123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.11	91	67 - 138	
1,1-Dichloroethane	10.0	10.6	106	79 - 125	
1,1-Dichloroethene	10.0	9.56	96	76 - 124	
1,1-Dichloropropene	10.0	11.1	111	80 - 128	
1,2,3-Trichlorobenzene	10.0	9.07	91	66 - 120	
1,2,3-Trichloropropane	10.0	10.8	108	72 - 126	
1,2,4-Trichlorobenzene	10.0	9.23	92	61 - 120	
1,2,4-Trimethylbenzene	10.0	10.5	105	76 - 120	
1,2-Dibromo-3-Chloropropane	10.0	9.32	93	50 - 132	
1,2-Dichlorobenzene	10.0	9.28	93	79 - 120	
1,2-Dichloroethane	10.0	9.84	98	80 - 120	
1,2-Dichloropropane	10.0	10.5	105	78 - 124	
1,3-Dichlorobenzene	10.0	9.90	99	79 - 120	
1,3-Dichloropropane	10.0	9.91	99	80 - 120	
1,4-Dichlorobenzene	10.0	10.1	101	79 - 120	
2,2-Dichloropropane	10.0	10.5	105	71 - 122	
2-Butanone (MEK)	20.0	20.4	102	56 - 138	
2-Chloroethyl vinyl ether	10.0	9.55	95	54 - 139	J
2-Chlorotoluene	10.0	11.1	111	80 - 120	
2-Hexanone	20.0	17.4	87	55 - 141	
4-Chlorotoluene	10.0	11.2	112	80 - 120	
p-Isopropyltoluene	10.0	10.1	101	77 - 120	
4-Methyl-2-pentanone (MIBK)	20.0	18.7	94	64 - 135	
Acetone	20.0	25.1	125	34 - 148	
Benzene	10.0	10.2	102	80 - 120	
Bromobenzene	10.0	11.4	114	80 - 120	
Bromoform	10.0	9.81	98	56 - 122	
Bromomethane	10.0	8.33	83	38 - 132	
Carbon disulfide	10.0	10.4	104	65 - 144	
Carbon tetrachloride	10.0	12.0	120	77 - 131	
Chlorobenzene	10.0	10.3	103	80 - 120	
Dibromochloromethane	10.0	10.1	101	74 - 120	
Chloroethane	10.0	9.08	91	36 - 126	
Chloroform	10.0	9.77	98	80 - 120	
Chloromethane	10.0	9.12	91	48 - 133	
cis-1,2-Dichloroethene	10.0	10.1	101	79 - 120	
cis-1,3-Dichloropropene	10.0	10.2	102	74 - 126	
Dibromomethane	10.0	9.94	99	80 - 120	
Bromochloromethane	10.0	9.75	98	80 - 120	
Dichlorodifluoromethane	10.0	7.29	73	23 - 136	
Bromodichloromethane	10.0	10.2	102	80 - 120	
tert-Butyl alcohol (TBA)	100	95.6	96	38 - 144	
Ethylbenzene	10.0	10.1	101	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Control Sample - Batch: 240-195083

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 240-195083/4	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8729.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1048	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1048				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	10.0	8.56	86	62 - 120	
Isopropylbenzene	10.0	10.3	103	77 - 120	
Methyl tert-butyl ether	10.0	10.0	100	69 - 121	
Methylene Chloride	10.0	9.62	96	77 - 129	
m-Xylene & p-Xylene	10.0	10.1	101	80 - 120	
Naphthalene	10.0	8.70	87	53 - 121	
n-Butylbenzene	10.0	9.50	95	74 - 120	
N-Propylbenzene	10.0	11.2	112	79 - 123	
o-Xylene	10.0	10.1	101	80 - 120	
sec-Butylbenzene	10.0	10.1	101	77 - 120	
Styrene	10.0	9.58	96	76 - 122	
Tetrachloroethene	10.0	9.72	97	78 - 121	
Toluene	10.0	9.39	94	80 - 120	
trans-1,2-Dichloroethene	10.0	10.4	104	80 - 124	
trans-1,3-Dichloropropene	10.0	10.3	103	75 - 131	
Trichloroethene	10.0	9.95	99	80 - 121	
Trichlorofluoromethane	10.0	9.26	93	61 - 133	
Vinyl acetate	10.0	8.39	84	27 - 160	
Vinyl chloride	10.0	8.44	84	52 - 121	
Xylenes, Total	20.0	20.2	101	80 - 120	
tert-Butylbenzene	10.0	10.6	106	77 - 121	
1,2-Dibromoethane	10.0	9.29	93	80 - 120	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	95	80 - 120
Dibromofluoromethane (Surr)	103	79 - 120
4-Bromofluorobenzene (Surr)	102	61 - 120
1,2-Dichloroethane-d4 (Surr)	102	78 - 125

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195083

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-54724-11	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8738.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1412			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1412				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54724-11	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8739.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1435			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1435				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1,2-Tetrachloroethane	107	103	72 - 120	4	22		
1,1,1-Trichloroethane	102	99	69 - 122	3	14		
1,1,2,2-Tetrachloroethane	112	116	61 - 130	3	18		
1,1,2-Trichloro-1,2,2-trifluoroethane	91	93	44 - 140	3	35		
1,1-Dichloroethane	110	106	73 - 124	4	14		
1,1-Dichloroethene	94	100	67 - 124	6	24		
1,1-Dichloropropene	111	108	81 - 126	3	11		
1,2,3-Trichlorobenzene	84	89	46 - 120	5	35		
1,2,3-Trichloropropane	113	115	58 - 135	2	25		
1,2,4-Trichlorobenzene	90	87	48 - 120	3	28		
1,2,4-Trimethylbenzene	100	101	64 - 122	1	14		
1,2-Dibromo-3-Chloropropane	102	101	42 - 130	0	24		
1,2-Dichlorobenzene	88	92	67 - 118	5	15		
1,2-Dichloroethane	101	97	74 - 125	5	24		
1,2-Dichloropropane	105	102	73 - 122	2	15		
1,3-Dichlorobenzene	96	94	65 - 120	2	15		
1,3-Dichloropropane	101	92	59 - 133	10	35		
1,4-Dichlorobenzene	97	96	66 - 120	1	16		
2,2-Dichloropropane	104	102	48 - 126	2	30		
2-Butanone (MEK)	99	95	49 - 132	4	19		
2-Chloroethyl vinyl ether	13	0	10 - 150	NC	30	J	U F1
2-Chlorotoluene	110	113	70 - 122	3	18		
2-Hexanone	105	96	49 - 142	9	27		
4-Chlorotoluene	111	113	74 - 120	1	15		
p-Isopropyltoluene	94	95	61 - 123	1	27		
4-Methyl-2-pentanone (MIBK)	115	109	58 - 136	5	32		
Acetone	97	91	32 - 126	5	28		
Benzene	103	99	73 - 121	4	13		
Bromobenzene	110	113	73 - 120	3	13		
Bromoform	108	104	45 - 121	4	19		
Bromomethane	77	82	26 - 136	7	35		
Carbon disulfide	109	109	54 - 144	0	34		
Carbon tetrachloride	115	114	65 - 129	1	20		

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195083

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-54724-11	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8738.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1412			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1412				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54724-11	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8739.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1435			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1435				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chlorobenzene	103	98	72 - 120	5	15		
Dibromochloromethane	104	98	62 - 122	7	19		
Chloroethane	80	87	27 - 131	9	35		
Chloroform	99	94	73 - 121	5	17		
Chloromethane	83	94	39 - 134	11	20		
cis-1,2-Dichloroethene	107	101	66 - 124	6	22		
cis-1,3-Dichloropropene	105	101	60 - 120	4	21		
Dibromomethane	100	100	63 - 134	0	35		
Bromochloromethane	103	97	60 - 132	5	35		
Dichlorodifluoromethane	68	73	14 - 137	7	34		
Bromodichloromethane	104	100	72 - 120	3	19		
tert-Butyl alcohol (TBA)	102	99	70 - 130	3	30		
Ethylbenzene	103	101	68 - 121	2	16		
Hexachlorobutadiene	79	75	48 - 120	5	34		
Isopropylbenzene	105	104	61 - 122	1	20		
Methyl tert-butyl ether	105	100	61 - 121	5	12		
Methylene Chloride	97	94	70 - 124	4	14		
m-Xylene & p-Xylene	104	100	66 - 123	3	15		
Naphthalene	91	95	38 - 128	4	35		
n-Butylbenzene	86	89	54 - 126	3	33		
N-Propylbenzene	109	115	63 - 129	5	29		
o-Xylene	108	103	68 - 121	5	14		
sec-Butylbenzene	97	100	61 - 123	4	29		
Styrene	101	98	64 - 126	2	15		
Tetrachloroethene	102	94	59 - 125	7	20		
Toluene	97	90	72 - 122	7	15		
trans-1,2-Dichloroethene	105	105	72 - 125	0	25		
trans-1,3-Dichloropropene	106	97	58 - 132	8	22		
Trichloroethene	99	97	61 - 129	2	14		
Trichlorofluoromethane	85	92	49 - 133	9	25		
Vinyl acetate	89	87	26 - 189	3	15		
Vinyl chloride	74	81	44 - 122	9	35		
Xylenes, Total	106	102	67 - 122	4	14		

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195083

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-54724-11	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8738.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1412			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1412				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54724-11	Analysis Batch:	240-195083	Instrument ID:	A3UX11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXJ8739.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/27/2015 1435			Final Weight/Volume:	5 mL
Prep Date:	08/27/2015 1435				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
tert-Butylbenzene	99	105	63 - 122	6	24		
1,2-Dibromoethane	99	94	69 - 125	5	24		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	97	91	80 - 120
Dibromofluoromethane (Surr)	99	94	79 - 120
4-Bromofluorobenzene (Surr)	105	104	61 - 120
1,2-Dichloroethane-d4 (Surr)	102	92	78 - 125

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195083

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-54724-11	Units: ug/L	MSD Lab Sample ID:	240-54724-11	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	08/27/2015 1412		Analysis Date:	08/27/2015 1435	
Prep Date:	08/27/2015 1412		Prep Date:	08/27/2015 1435	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
1,1,1,2-Tetrachloroethane	0.28	U	10.0	10.0	10.7		10.3	
1,1,1-Trichloroethane	0.44	U	10.0	10.0	10.2		9.92	
1,1,2,2-Tetrachloroethane	0.22	U	10.0	10.0	11.2		11.6	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	10.0	10.0	9.06		9.33	
1,1-Dichloroethane	0.30	U	10.0	10.0	11.0		10.6	
1,1-Dichloroethene	0.45	U	10.0	10.0	9.38		10.0	
1,1-Dichloropropene	0.42	U	10.0	10.0	11.1		10.8	
1,2,3-Trichlorobenzene	0.37	U	10.0	10.0	8.44		8.90	
1,2,3-Trichloropropane	0.44	U	10.0	10.0	11.3		11.5	
1,2,4-Trichlorobenzene	0.32	U	10.0	10.0	8.96		8.68	
1,2,4-Trimethylbenzene	0.41	U	10.0	10.0	10.0		10.1	
1,2-Dibromo-3-Chloropropane	0.82	U	10.0	10.0	10.2		10.1	
1,2-Dichlorobenzene	0.25	U	10.0	10.0	8.81		9.22	
1,2-Dichloroethane	0.23	U	10.0	10.0	10.1		9.66	
1,2-Dichloropropane	0.25	U	10.0	10.0	10.5		10.2	
1,3-Dichlorobenzene	0.19	U	10.0	10.0	9.64		9.41	
1,3-Dichloropropane	0.19	U	10.0	10.0	10.1		9.16	
1,4-Dichlorobenzene	0.27	U	10.0	10.0	9.71		9.62	
2,2-Dichloropropane	0.26	U	10.0	10.0	10.4		10.2	
2-Butanone (MEK)	1.1	J	20.0	20.0	20.9		20.1	
2-Chloroethyl vinyl ether	0.59	U	10.0	10.0	1.28	J	0.59	U F1
2-Chlorotoluene	0.40	U	10.0	10.0	11.0		11.3	
2-Hexanone	0.48	U	20.0	20.0	20.9		19.2	
4-Chlorotoluene	0.29	U	10.0	10.0	11.1		11.3	
p-Isopropyltoluene	0.43	U	10.0	10.0	9.41		9.47	
4-Methyl-2-pentanone (MIBK)	0.99	U	20.0	20.0	23.1		21.8	
Acetone	6.2	J	20.0	20.0	25.7		24.4	
Benzene	0.35	U	10.0	10.0	10.3		9.90	
Bromobenzene	0.35	U	10.0	10.0	11.0		11.3	
Bromoform	0.56	U	10.0	10.0	10.8		10.4	
Bromomethane	0.44	U	10.0	10.0	7.67		8.24	
Carbon disulfide	0.38	U	10.0	10.0	10.9		10.9	
Carbon tetrachloride	0.43	U	10.0	10.0	11.5		11.4	
Chlorobenzene	0.25	U	10.0	10.0	10.3		9.82	
Dibromochloromethane	0.43	U	10.0	10.0	10.4		9.76	
Chloroethane	0.32	U	10.0	10.0	8.02		8.74	
Chloroform	0.25	U	10.0	10.0	9.91		9.39	
Chloromethane	0.82	J	10.0	10.0	9.10		10.2	
cis-1,2-Dichloroethene	0.26	U	10.0	10.0	10.7		10.1	
cis-1,3-Dichloropropene	0.46	U	10.0	10.0	10.5		10.1	
Dibromomethane	0.42	U	10.0	10.0	10.0		9.98	
Bromochloromethane	0.50	U	10.0	10.0	10.3		9.74	
Dichlorodifluoromethane	0.32	U	10.0	10.0	6.83		7.29	

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195083

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-54724-11	Units: ug/L		MSD Lab Sample ID:	240-54724-11
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/27/2015 1412			Analysis Date:	08/27/2015 1435
Prep Date:	08/27/2015 1412			Prep Date:	08/27/2015 1435
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Bromodichloromethane	0.29	U	10.0	10.0	10.4	10.0
tert-Butyl alcohol (TBA)	4.9	U	100	100	102	99.3
Ethylbenzene	0.25	U	10.0	10.0	10.3	10.1
Hexachlorobutadiene	0.35	U	10.0	10.0	7.89	7.51
Isopropylbenzene	0.35	U	10.0	10.0	10.5	10.4
Methyl tert-butyl ether	0.20	U	10.0	10.0	10.5	10.0
Methylene Chloride	0.33	U	10.0	10.0	9.74	9.38
m-Xylene & p-Xylene	0.24	U	10.0	10.0	10.4	10.0
Naphthalene	0.72	J	10.0	10.0	9.87	10.3
n-Butylbenzene	0.31	U	10.0	10.0	8.62	8.91
N-Propylbenzene	0.40	U	10.0	10.0	10.9	11.5
o-Xylene	0.25	U	10.0	10.0	10.8	10.3
sec-Butylbenzene	0.48	U	10.0	10.0	9.65	10.0
Styrene	0.45	U	10.0	10.0	10.1	9.83
Tetrachloroethene	0.31	U	10.0	10.0	10.2	9.45
Toluene	0.23	U	10.0	10.0	9.68	9.03
trans-1,2-Dichloroethene	0.30	U	10.0	10.0	10.5	10.5
trans-1,3-Dichloropropene	0.56	U	10.0	10.0	10.6	9.73
Trichloroethene	0.22	U	10.0	10.0	9.91	9.69
Trichlorofluoromethane	0.49	U	10.0	10.0	8.47	9.23
Vinyl acetate	0.41	U	10.0	10.0	8.88	8.66
Vinyl chloride	0.29	U	10.0	10.0	7.40	8.10
Xylenes, Total	0.52	U	20.0	20.0	21.2	20.3
tert-Butylbenzene	0.41	U	10.0	10.0	9.86	10.5
1,2-Dibromoethane	0.32	U	10.0	10.0	9.88	9.42

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Method Blank - Batch: 240-195059

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-195059/23-A	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195059	Lab File ID:	50829003.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/29/2015 1006	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	105	36 - 110
Phenol-d5 (Surr)	91	26 - 110
Nitrobenzene-d5 (Surr)	79	20 - 110
2-Fluorophenol (Surr)	82	24 - 110
2-Fluorobiphenyl (Surr)	79	24 - 110
2,4,6-Tribromophenol (Surr)	41	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Control Sample - Batch: 240-195059

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-195059/24-A	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195059	Lab File ID:	50829004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/29/2015 1030	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	491	74	38 - 110	
Acenaphthylene	667	497	75	40 - 110	
Anthracene	667	518	78	48 - 110	
Benzo[a]anthracene	667	531	80	50 - 110	
Benzo[a]pyrene	667	584	88	44 - 110	
Benzo[b]fluoranthene	667	573	86	43 - 110	
Benzo[g,h,i]perylene	667	587	88	51 - 110	
Benzo[k]fluoranthene	667	590	89	38 - 105	
Chrysene	667	547	82	50 - 110	
Dibenz(a,h)anthracene	667	606	91	51 - 110	
Fluoranthene	667	524	79	51 - 110	
Fluorene	667	473	71	46 - 110	
Indeno[1,2,3-cd]pyrene	667	594	89	50 - 110	
Naphthalene	667	516	77	36 - 110	
Phenanthrene	667	514	77	49 - 110	
Pyrene	667	578	87	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	89	36 - 110
Phenol-d5 (Surr)	92	26 - 110
Nitrobenzene-d5 (Surr)	83	20 - 110
2-Fluorophenol (Surr)	87	24 - 110
2-Fluorobiphenyl (Surr)	74	24 - 110
2,4,6-Tribromophenol (Surr)	35	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195059

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54724-17	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195059	Lab File ID:	50829011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.38 g
Analysis Date:	08/29/2015 1320			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54724-17	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195059	Lab File ID:	50829012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.16 g
Analysis Date:	08/29/2015 1344			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0814			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	69	68	22 - 110	0	99		
Acenaphthylene	71	70	24 - 110	1	99		
Anthracene	71	77	20 - 110	9	99		
Benzo[a]anthracene	72	81	10 - 122	13	99		
Benzo[a]pyrene	74	82	10 - 110	11	99		
Benzo[b]fluoranthene	74	86	12 - 118	15	99		
Benzo[g,h,i]perylene	77	85	10 - 117	11	99		
Benzo[k]fluoranthene	75	82	10 - 121	10	99		
Chrysene	73	83	10 - 125	14	99		
Dibenz(a,h)anthracene	84	91	14 - 113	9	99		
Fluoranthene	72	79	10 - 110	10	99		
Fluorene	67	71	23 - 110	7	99		
Indeno[1,2,3-cd]pyrene	80	87	10 - 114	10	99		
Naphthalene	68	65	10 - 111	4	99		
Phenanthrene	69	75	10 - 166	8	99		
Pyrene	77	87	10 - 147	12	99		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (Surr)	77	87	36 - 110
Phenol-d5 (Surr)	79	80	26 - 110
Nitrobenzene-d5 (Surr)	71	69	20 - 110
2-Fluorophenol (Surr)	76	75	24 - 110
2-Fluorobiphenyl (Surr)	67	66	24 - 110
2,4,6-Tribromophenol (Surr)	46	50	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195059

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54724-17	Units:	ug/Kg	MSD Lab Sample ID:	240-54724-17
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/29/2015 1320			Analysis Date:	08/29/2015 1344
Prep Date:	08/27/2015 0814			Prep Date:	08/27/2015 0814
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acenaphthene	0.93	U	809	815	558	557
Acenaphthylene	0.43	U	809	815	577	571
Anthracene	0.95	U	809	815	575	626
Benzo[a]anthracene	9.3		809	815	588	670
Benzo[a]pyrene	9.8		809	815	610	682
Benzo[b]fluoranthene	16		809	815	617	714
Benzo[g,h,i]perylene	9.8		809	815	633	705
Benzo[k]fluoranthene	4.8	J	809	815	608	673
Chrysene	12		809	815	601	689
Dibenz(a,h)anthracene	0.80	U	809	815	676	738
Fluoranthene	17		809	815	602	663
Fluorene	0.65	U	809	815	543	579
Indeno[1,2,3-cd]pyrene	6.5	J	809	815	650	717
Naphthalene	13		809	815	566	544
Phenanthrene	15		809	815	577	626
Pyrene	15		809	815	642	727

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Method Blank - Batch: 240-195060

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-195060/5-A	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195060	Lab File ID:	50829005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/29/2015 1054	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0819			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Anthracene	0.78	U	0.78	6.7
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Naphthalene	0.82	U	0.82	6.7
Phenanthrene	0.73	U	0.73	6.7
Pyrene	0.44	U	0.44	6.7

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	88	36 - 110
Phenol-d5 (Surr)	81	26 - 110
Nitrobenzene-d5 (Surr)	70	20 - 110
2-Fluorophenol (Surr)	70	24 - 110
2-Fluorobiphenyl (Surr)	71	24 - 110
2,4,6-Tribromophenol (Surr)	18	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Control Sample - Batch: 240-195060

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-195060/6-A	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195060	Lab File ID:	50829006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	08/29/2015 1119	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0819			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	667	474	71	38 - 110	
Acenaphthylene	667	475	71	40 - 110	
Anthracene	667	499	75	48 - 110	
Benzo[a]anthracene	667	520	78	50 - 110	
Benzo[a]pyrene	667	561	84	44 - 110	
Benzo[b]fluoranthene	667	566	85	43 - 110	
Benzo[g,h,i]perylene	667	576	86	51 - 110	
Benzo[k]fluoranthene	667	592	89	38 - 105	
Chrysene	667	554	83	50 - 110	
Dibenz(a,h)anthracene	667	617	92	51 - 110	
Fluoranthene	667	520	78	51 - 110	
Fluorene	667	463	69	46 - 110	
Indeno[1,2,3-cd]pyrene	667	592	89	50 - 110	
Naphthalene	667	474	71	36 - 110	
Phenanthrene	667	491	74	49 - 110	
Pyrene	667	562	84	49 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	86	36 - 110
Phenol-d5 (Surr)	82	26 - 110
Nitrobenzene-d5 (Surr)	76	20 - 110
2-Fluorophenol (Surr)	81	24 - 110
2-Fluorobiphenyl (Surr)	69	24 - 110
2,4,6-Tribromophenol (Surr)	35	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195060

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54724-19	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195060	Lab File ID:	50829008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.67 g
Analysis Date:	08/29/2015 1207			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0819			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-54724-19	Analysis Batch:	240-195413	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-195060	Lab File ID:	50829009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.26 g
Analysis Date:	08/29/2015 1231			Final Weight/Volume:	2 mL
Prep Date:	08/27/2015 0819			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	66	75	22 - 110	10	99		
Acenaphthylene	68	76	24 - 110	10	99		
Anthracene	79	80	20 - 110	1	99		
Benzo[a]anthracene	81	83	10 - 122	1	99		
Benzo[a]pyrene	85	83	10 - 110	4	99		
Benzo[b]fluoranthene	86	89	12 - 118	2	99		
Benzo[g,h,i]perylene	90	91	10 - 117	1	99		
Benzo[k]fluoranthene	87	82	10 - 121	8	99		
Chrysene	84	84	10 - 125	1	99		
Dibenz(a,h)anthracene	95	97	14 - 113	1	99		
Fluoranthene	82	80	10 - 110	4	99		
Fluorene	71	75	23 - 110	4	99		
Indeno[1,2,3-cd]pyrene	92	91	10 - 114	4	99		
Naphthalene	56	73	10 - 111	24	99		
Phenanthrene	78	78	10 - 166	2	99		
Pyrene	86	88	10 - 147	1	99		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (Surr)	90	92	36 - 110
Phenol-d5 (Surr)	67	85	26 - 110
Nitrobenzene-d5 (Surr)	59	79	20 - 110
2-Fluorophenol (Surr)	63	82	24 - 110
2-Fluorobiphenyl (Surr)	59	73	24 - 110
2,4,6-Tribromophenol (Surr)	60	58	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195060

Method: 8270D
Preparation: 3540C

MS Lab Sample ID:	240-54724-19	Units:	ug/Kg	MSD Lab Sample ID:	240-54724-19
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/29/2015 1207			Analysis Date:	08/29/2015 1231
Prep Date:	08/27/2015 0819			Prep Date:	08/27/2015 0819
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acenaphthene	5.5	J	829	813	553	612
Acenaphthylene	0.43	U	829	813	560	621
Anthracene	13		829	813	669	663
Benzo[a]anthracene	28		829	813	697	704
Benzo[a]pyrene	23		829	813	729	702
Benzo[b]fluoranthene	30		829	813	739	757
Benzo[g,h,i]perylene	15		829	813	765	753
Benzo[k]fluoranthene	17		829	813	740	682
Chrysene	31		829	813	724	717
Dibenz(a,h)anthracene	0.81	U	829	813	792	785
Fluoranthene	72		829	813	749	721
Fluorene	5.9	J	829	813	590	612
Indeno[1,2,3-cd]pyrene	12		829	813	779	749
Naphthalene	7.3	J	829	813	475	602
Phenanthrene	55		829	813	704	689
Pyrene	60		829	813	770	774

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Method Blank - Batch: 240-195418

Method: 8082A
Preparation: 3520C

Lab Sample ID:	MB 240-195418/2-A	Analysis Batch:	240-195464	Instrument ID:	A2HP11
Client Matrix:	Water	Prep Batch:	240-195418	Lab File ID:	P1100010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	08/30/2015 1933	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/29/2015 0945			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor-1016	0.17	U	0.17	0.50
Aroclor-1221	0.13	U	0.13	0.50
Aroclor-1232	0.16	U	0.16	0.50
Aroclor-1242	0.22	U	0.22	0.50
Aroclor-1248	0.10	U	0.10	0.50
Aroclor-1254	0.16	U	0.16	0.50
Aroclor-1260	0.17	U	0.17	0.50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	58	21 - 124
DCB Decachlorobiphenyl	76	10 - 131

Lab Control Sample - Batch: 240-195418

Method: 8082A
Preparation: 3520C

Lab Sample ID:	LCS 240-195418/3-A	Analysis Batch:	240-195464	Instrument ID:	A2HP11
Client Matrix:	Water	Prep Batch:	240-195418	Lab File ID:	P1100011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	08/30/2015 1951	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	08/29/2015 0945			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	5.00	3.60	72	48 - 126	
Aroclor-1260	5.00	3.63	73	43 - 130	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	62	21 - 124
DCB Decachlorobiphenyl	64	10 - 131

Client: Tetra Tech, Inc. Job Number: 240-54724-1

TCLP SPLPE Leachate Blank - Batch: 240-195294

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 240-195274/1-B	Analysis Batch:	240-195529	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-195294	Lab File ID:	I12083115A.asc
Dilution:	1.0	Leach Batch:	240-195274	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 0722	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 0936				
Leach Date:	08/27/2015 1730				

Analyte	Result	Qual	MDL	RL
Arsenic	0.0029	U	0.0029	0.50
Barium	0.00260	J	0.0010	10
Cadmium	0.00014	U	0.00014	0.10
Chromium	0.00127	J	0.00055	0.50
Lead	0.0019	U	0.0019	0.50
Selenium	0.0040	U	0.0040	0.25
Silver	0.00092	U	0.00092	0.50

Method Blank - Batch: 240-195294

Method: 6010B
Preparation: 3010A

Lab Sample ID:	MB 240-195294/2-A	Analysis Batch:	240-195529	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-195294	Lab File ID:	I12083115A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 0726	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 0936				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	0.0029	U	0.0029	0.50
Barium	0.0010	U	0.0010	10
Cadmium	0.000232	J	0.00014	0.10
Chromium	0.00055	U	0.00055	0.50
Lead	0.0019	U	0.0019	0.50
Selenium	0.0040	U	0.0040	0.25
Silver	0.00092	U	0.00092	0.50

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Control Sample - Batch: 240-195294

Method: 6010B
Preparation: 3010A

Lab Sample ID:	LCS 240-195294/3-A	Analysis Batch:	240-195529	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-195294	Lab File ID:	I12083115A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 0730	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 0936				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	2.00	2.07	104	50 - 150	
Barium	2.00	2.03	101	50 - 150	J
Cadmium	0.0500	0.0525	105	50 - 150	J
Chromium	0.200	0.205	103	50 - 150	J
Lead	0.500	0.501	100	50 - 150	
Selenium	2.00	2.09	105	50 - 150	
Silver	0.0500	0.0529	106	50 - 150	J

Client: Tetra Tech, Inc. Job Number: 240-54724-1

TCLP SPLPE Leachate Blank - Batch: 240-195365

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 240-195274/1-D	Analysis Batch:	240-195593	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-195365	Lab File ID:	083115AH1.PRN
Dilution:	1.0	Leach Batch:	240-195274	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 1205	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 1400				
Leach Date:	08/27/2015 1730				

Analyte	Result	Qual	MDL	RL
Mercury	0.000090	U	0.000090	0.0020

Method Blank - Batch: 240-195365

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 240-195365/2-A	Analysis Batch:	240-195593	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-195365	Lab File ID:	083115AH1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 1206	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.000090	U	0.000090	0.0020

Lab Control Sample - Batch: 240-195365

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 240-195365/3-A	Analysis Batch:	240-195593	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-195365	Lab File ID:	083115AH1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 1208	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00525	105	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195365

Method: 7470A
Preparation: 7470A
TCLP

MS Lab Sample ID:	240-54711-A-4-L MS	Analysis Batch:	240-195593	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-195365	Lab File ID:	083115AH1.PRN
Dilution:	1.0	Leach Batch:	240-195274	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 1211			Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 1400				
Leach Date:	08/27/2015 1730				

MSD Lab Sample ID:	240-54711-A-4-M MSD ^2	Analysis Batch:	240-195593	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-195365	Lab File ID:	083115AH1.PRN
Dilution:	2.0	Leach Batch:	240-195274	Initial Weight/Volume:	50 mL
Analysis Date:	08/31/2015 1213			Final Weight/Volume:	50 mL
Prep Date:	08/28/2015 1400				
Leach Date:	08/27/2015 1730				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	104	102	80 - 120	63	20		F2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-195365

Method: 7470A
Preparation: 7470A
TCLP

MS Lab Sample ID:	240-54711-A-4-L MS	Units:	mg/L	MSD Lab Sample ID:	240-54711-A-4-M MSD ^2
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	2.0
Analysis Date:	08/31/2015 1211			Analysis Date:	08/31/2015 1213
Prep Date:	08/28/2015 1400			Prep Date:	08/28/2015 1400
Leach Date:	08/27/2015 1730			Leach Date:	08/27/2015 1730

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.00021 J	0.00500	0.0100	0.00543	0.0104 F2

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Control Sample - Batch: 240-195256

Method: 1010A
Preparation: N/A

Lab Sample ID:	LCS 240-195256/1	Analysis Batch:	240-195256	Instrument ID:	WHITEY
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/28/2015 0545	Units:	Degrees F	Final Weight/Volume:	70 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Flashpoint	81.0	83.00	102	97 - 103	

Duplicate - Batch: 240-195256

Method: 1010A
Preparation: N/A

Lab Sample ID:	240-54741-A-4 DU	Analysis Batch:	240-195256	Instrument ID:	WHITEY
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/28/2015 0612	Units:	Degrees F	Final Weight/Volume:	70 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Flashpoint	>200	>200	NC	20	

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Duplicate - Batch: 240-194999

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54724-1	Analysis Batch:	240-194999	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/26/2015 1637	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	86	87	0.4	20	
Percent Moisture	14	13	3	20	

Duplicate - Batch: 240-194999

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-54724-10	Analysis Batch:	240-194999	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/26/2015 1701	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	87	86	0.2	20	
Percent Moisture	13	14	1	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
Metals		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Tetra Tech, Inc. Job Number: 240-54724-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-195083					
LCS 240-195083/4	Lab Control Sample	T	Water	8260C	
MB 240-195083/7	Method Blank	T	Water	8260C	
240-54724-11	WC-DFRAC-082515	T	Water	8260C	
240-54724-11MS	Matrix Spike	T	Water	8260C	
240-54724-11MSD	Matrix Spike Duplicate	T	Water	8260C	
240-54724-12	TB-082515	T	Water	8260C	

Report Basis
T = Total

GC/MS Semi VOA					
Prep Batch: 240-195059					
LCS 240-195059/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-195059/23-A	Method Blank	T	Solid	3540C	
240-54724-1	D-VB-F-1-2	T	Solid	3540C	
240-54724-2	D-VB-F-2-2	T	Solid	3540C	
240-54724-3	D-VB-F-3-2	T	Solid	3540C	
240-54724-4	D-VB-F-4-2	T	Solid	3540C	
240-54724-5	D-VB-F-5-2	T	Solid	3540C	
240-54724-6	D-VB-F-7-2	T	Solid	3540C	
240-54724-7	D-VB-F-8-2	T	Solid	3540C	
240-54724-8	D-VB-F-9-2	T	Solid	3540C	
240-54724-9	D-VS-F-1-1	T	Solid	3540C	
240-54724-10	D-VS-F-2-1	T	Solid	3540C	
240-54724-13	D-VS-D-1-1	T	Solid	3540C	
240-54724-14	D-VS-D-2-1	T	Solid	3540C	
240-54724-15	D-VS-D-3-1	T	Solid	3540C	
240-54724-16	D-VS-D-4-1	T	Solid	3540C	
240-54724-17	D-VB-D-1-2	T	Solid	3540C	
240-54724-17MS	Matrix Spike	T	Solid	3540C	
240-54724-17MSD	Matrix Spike Duplicate	T	Solid	3540C	
Prep Batch: 240-195060					
LCS 240-195060/6-A	Lab Control Sample	T	Solid	3540C	
MB 240-195060/5-A	Method Blank	T	Solid	3540C	
240-54724-18	D-VB-D-2-2	T	Solid	3540C	
240-54724-19	D-DUP07-082515	T	Solid	3540C	
240-54724-19MS	Matrix Spike	T	Solid	3540C	
240-54724-19MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-195413					
LCS 240-195059/24-A	Lab Control Sample	T	Solid	8270D	240-195059
MB 240-195059/23-A	Method Blank	T	Solid	8270D	240-195059
LCS 240-195060/6-A	Lab Control Sample	T	Solid	8270D	240-195060
MB 240-195060/5-A	Method Blank	T	Solid	8270D	240-195060

Client: Tetra Tech, Inc. Job Number: 240-54724-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:240-195413					
240-54724-1	D-VB-F-1-2	T	Solid	8270D	240-195059
240-54724-2	D-VB-F-2-2	T	Solid	8270D	240-195059
240-54724-3	D-VB-F-3-2	T	Solid	8270D	240-195059
240-54724-4	D-VB-F-4-2	T	Solid	8270D	240-195059
240-54724-5	D-VB-F-5-2	T	Solid	8270D	240-195059
240-54724-6	D-VB-F-7-2	T	Solid	8270D	240-195059
240-54724-7	D-VB-F-8-2	T	Solid	8270D	240-195059
240-54724-8	D-VB-F-9-2	T	Solid	8270D	240-195059
240-54724-9	D-VS-F-1-1	T	Solid	8270D	240-195059
240-54724-10	D-VS-F-2-1	T	Solid	8270D	240-195059
240-54724-13	D-VS-D-1-1	T	Solid	8270D	240-195059
240-54724-14	D-VS-D-2-1	T	Solid	8270D	240-195059
240-54724-15	D-VS-D-3-1	T	Solid	8270D	240-195059
240-54724-16	D-VS-D-4-1	T	Solid	8270D	240-195059
240-54724-17	D-VB-D-1-2	T	Solid	8270D	240-195059
240-54724-17MS	Matrix Spike	T	Solid	8270D	240-195059
240-54724-17MSD	Matrix Spike Duplicate	T	Solid	8270D	240-195059
240-54724-18	D-VB-D-2-2	T	Solid	8270D	240-195060
240-54724-19	D-DUP07-082515	T	Solid	8270D	240-195060
240-54724-19MS	Matrix Spike	T	Solid	8270D	240-195060
240-54724-19MSD	Matrix Spike Duplicate	T	Solid	8270D	240-195060

Report Basis
T = Total

GC Semi VOA

Prep Batch: 240-195418					
LCS 240-195418/3-A	Lab Control Sample	T	Water	3520C	
MB 240-195418/2-A	Method Blank	T	Water	3520C	
240-54724-11	WC-DFRAC-082515	T	Water	3520C	
Analysis Batch:240-195464					
LCS 240-195418/3-A	Lab Control Sample	T	Water	8082A	240-195418
MB 240-195418/2-A	Method Blank	T	Water	8082A	240-195418
240-54724-11	WC-DFRAC-082515	T	Water	8082A	240-195418

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54724-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-195274					
LB 240-195274/1-B	TCLP SPLPE Leachate Blank	P	Water	1311	
LB 240-195274/1-D	TCLP SPLPE Leachate Blank	P	Water	1311	
240-54711-A-4-L MS	Matrix Spike	P	Water	1311	
240-54711-A-4-M MSD ^2	Matrix Spike Duplicate	P	Water	1311	
240-54724-11	WC-DFRAC-082515	P	Water	1311	
Prep Batch: 240-195294					
LCS 240-195294/3-A	Lab Control Sample	T	Water	3010A	
MB 240-195294/2-A	Method Blank	T	Water	3010A	
LB 240-195274/1-B	TCLP SPLPE Leachate Blank	P	Water	3010A	240-195274
240-54724-11	WC-DFRAC-082515	P	Water	3010A	240-195274
Prep Batch: 240-195365					
LCS 240-195365/3-A	Lab Control Sample	T	Water	7470A	
MB 240-195365/2-A	Method Blank	T	Water	7470A	
LB 240-195274/1-D	TCLP SPLPE Leachate Blank	P	Water	7470A	240-195274
240-54711-A-4-L MS	Matrix Spike	P	Water	7470A	240-195274
240-54711-A-4-M MSD ^2	Matrix Spike Duplicate	P	Water	7470A	240-195274
240-54724-11	WC-DFRAC-082515	P	Water	7470A	240-195274
Analysis Batch:240-195529					
LCS 240-195294/3-A	Lab Control Sample	T	Water	6010B	240-195294
MB 240-195294/2-A	Method Blank	T	Water	6010B	240-195294
LB 240-195274/1-B	TCLP SPLPE Leachate Blank	P	Water	6010B	240-195294
240-54724-11	WC-DFRAC-082515	P	Water	6010B	240-195294
Analysis Batch:240-195593					
LCS 240-195365/3-A	Lab Control Sample	T	Water	7470A	240-195365
MB 240-195365/2-A	Method Blank	T	Water	7470A	240-195365
LB 240-195274/1-D	TCLP SPLPE Leachate Blank	P	Water	7470A	240-195365
240-54711-A-4-L MS	Matrix Spike	P	Water	7470A	240-195365
240-54711-A-4-M MSD ^2	Matrix Spike Duplicate	P	Water	7470A	240-195365
240-54724-11	WC-DFRAC-082515	P	Water	7470A	240-195365

Report Basis
P = TCLP
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54724-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-194999					
240-54724-1	D-VB-F-1-2	T	Solid	Moisture	
240-54724-1DU	Duplicate	T	Solid	Moisture	
240-54724-2	D-VB-F-2-2	T	Solid	Moisture	
240-54724-3	D-VB-F-3-2	T	Solid	Moisture	
240-54724-4	D-VB-F-4-2	T	Solid	Moisture	
240-54724-5	D-VB-F-5-2	T	Solid	Moisture	
240-54724-6	D-VB-F-7-2	T	Solid	Moisture	
240-54724-7	D-VB-F-8-2	T	Solid	Moisture	
240-54724-8	D-VB-F-9-2	T	Solid	Moisture	
240-54724-9	D-VS-F-1-1	T	Solid	Moisture	
240-54724-10	D-VS-F-2-1	T	Solid	Moisture	
240-54724-10DU	Duplicate	T	Solid	Moisture	
240-54724-13	D-VS-D-1-1	T	Solid	Moisture	
240-54724-14	D-VS-D-2-1	T	Solid	Moisture	
240-54724-15	D-VS-D-3-1	T	Solid	Moisture	
240-54724-16	D-VS-D-4-1	T	Solid	Moisture	
240-54724-17	D-VB-D-1-2	T	Solid	Moisture	
240-54724-18	D-VB-D-2-2	T	Solid	Moisture	
240-54724-19	D-DUP07-082515	T	Solid	Moisture	
Analysis Batch:240-195256					
LCS 240-195256/1	Lab Control Sample	T	Water	1010A	
240-54724-11	WC-DFRAC-082515	T	Water	1010A	
240-54741-A-4 DU	Duplicate	T	Water	1010A	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Laboratory Chronicle

Lab ID: 240-54724-1 **Client ID: D-VB-F-1-2**

Sample Date/Time: 08/25/2015 10:30 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-1-A		240-195413	240-195059	08/27/2015 08:14	2	TAL CAN	NAK
A:8270D	240-54724-B-1-A		240-195413	240-195059	08/29/2015 17:47	2	TAL CAN	MRU
A:Moisture	240-54724-A-1		240-194999		08/26/2015 16:37	1	TAL CAN	JMB

Lab ID: 240-54724-1 DU **Client ID: D-VB-F-1-2**

Sample Date/Time: 08/25/2015 10:30 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54724-A-1 DU		240-194999		08/26/2015 16:37	1	TAL CAN	JMB

Lab ID: 240-54724-2 **Client ID: D-VB-F-2-2**

Sample Date/Time: 08/25/2015 10:32 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-2-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-2-A		240-195413	240-195059	08/29/2015 18:12	1	TAL CAN	MRU
A:Moisture	240-54724-A-2		240-194999		08/26/2015 16:37	1	TAL CAN	JMB

Lab ID: 240-54724-3 **Client ID: D-VB-F-3-2**

Sample Date/Time: 08/25/2015 10:34 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-3-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-3-A		240-195413	240-195059	08/29/2015 16:34	1	TAL CAN	MRU
A:Moisture	240-54724-A-3		240-194999		08/26/2015 16:37	1	TAL CAN	JMB

Lab ID: 240-54724-4 **Client ID: D-VB-F-4-2**

Sample Date/Time: 08/25/2015 10:36 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-4-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-4-A		240-195413	240-195059	08/29/2015 16:59	1	TAL CAN	MRU
A:Moisture	240-54724-A-4		240-194999		08/26/2015 16:37	1	TAL CAN	JMB

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Laboratory Chronicle

Lab ID: 240-54724-5 **Client ID: D-VB-F-5-2**

Sample Date/Time: 08/25/2015 10:38 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-5-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-5-A		240-195413	240-195059	08/29/2015 18:36	1	TAL CAN	MRU
A:Moisture	240-54724-A-5		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-6 **Client ID: D-VB-F-7-2**

Sample Date/Time: 08/25/2015 10:40 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-6-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-6-A		240-195413	240-195059	08/29/2015 19:00	1	TAL CAN	MRU
A:Moisture	240-54724-A-6		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-7 **Client ID: D-VB-F-8-2**

Sample Date/Time: 08/25/2015 10:42 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-7-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-7-A		240-195413	240-195059	08/29/2015 19:24	1	TAL CAN	MRU
A:Moisture	240-54724-A-7		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-8 **Client ID: D-VB-F-9-2**

Sample Date/Time: 08/25/2015 10:44 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-8-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-8-A		240-195413	240-195059	08/29/2015 14:57	1	TAL CAN	MRU
A:Moisture	240-54724-A-8		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-9 **Client ID: D-VS-F-1-1**

Sample Date/Time: 08/25/2015 10:46 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-9-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-9-A		240-195413	240-195059	08/29/2015 19:49	1	TAL CAN	MRU
A:Moisture	240-54724-A-9		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Laboratory Chronicle

Lab ID: 240-54724-10 **Client ID: D-VS-F-2-1**

Sample Date/Time: 08/25/2015 10:48 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-10-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-10-A		240-195413	240-195059	08/29/2015 15:22	1	TAL CAN	MRU
A:Moisture	240-54724-A-10		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-10 DU **Client ID: D-VS-F-2-1**

Sample Date/Time: 08/25/2015 10:48 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-54724-A-10 DU		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-11 **Client ID: WC-DFRAC-082515**

Sample Date/Time: 08/25/2015 10:20 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-54724-B-11		240-195083		08/27/2015 13:04	1	TAL CAN	LEE
A:8260C	240-54724-B-11		240-195083		08/27/2015 13:04	1	TAL CAN	LEE
P:3520C	240-54724-F-11-E		240-195464	240-195418	08/29/2015 09:45	1	TAL CAN	cs
A:8082A	240-54724-F-11-E		240-195464	240-195418	08/30/2015 19:15	1	TAL CAN	HMB
P:3010A	240-54724-F-11-B		240-195529	240-195294	08/28/2015 09:36	1	TAL CAN	WKD
A:6010B	240-54724-F-11-B		240-195529	240-195294	08/31/2015 07:34	1	TAL CAN	KLC
P:7470A	240-54724-F-11-D		240-195593	240-195365	08/28/2015 14:00	1	TAL CAN	WKD
A:7470A	240-54724-F-11-D		240-195593	240-195365	08/31/2015 12:14	1	TAL CAN	WAL
A:1010A	240-54724-D-11		240-195256		08/28/2015 08:32	1	TAL CAN	TPH

Lab ID: 240-54724-11 MS **Client ID: WC-DFRAC-082515**

Sample Date/Time: 08/25/2015 10:20 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-54724-B-11 MS		240-195083		08/27/2015 14:12	1	TAL CAN	LEE
A:8260C	240-54724-B-11 MS		240-195083		08/27/2015 14:12	1	TAL CAN	LEE

Lab ID: 240-54724-11 MSD **Client ID: WC-DFRAC-082515**

Sample Date/Time: 08/25/2015 10:20 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-54724-A-11 MSD		240-195083		08/27/2015 14:35	1	TAL CAN	LEE
A:8260C	240-54724-A-11 MSD		240-195083		08/27/2015 14:35	1	TAL CAN	LEE

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Laboratory Chronicle

Lab ID: 240-54724-12 **Client ID: TB-082515**

Sample Date/Time: 08/25/2015 00:00 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-54724-A-12		240-195083		08/27/2015 12:41	1	TAL CAN	LEE
A:8260C	240-54724-A-12		240-195083		08/27/2015 12:41	1	TAL CAN	LEE

Lab ID: 240-54724-13 **Client ID: D-VS-D-1-1**

Sample Date/Time: 08/25/2015 14:20 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-13-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-13-A		240-195413	240-195059	08/29/2015 15:46	1	TAL CAN	MRU
A:Moisture	240-54724-A-13		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-14 **Client ID: D-VS-D-2-1**

Sample Date/Time: 08/25/2015 14:22 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-14-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-14-A		240-195413	240-195059	08/29/2015 16:10	1	TAL CAN	MRU
A:Moisture	240-54724-A-14		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-15 **Client ID: D-VS-D-3-1**

Sample Date/Time: 08/25/2015 14:24 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-15-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-15-A		240-195413	240-195059	08/29/2015 14:33	1	TAL CAN	MRU
A:Moisture	240-54724-A-15		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-16 **Client ID: D-VS-D-4-1**

Sample Date/Time: 08/25/2015 14:26 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-16-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-16-A		240-195413	240-195059	08/29/2015 14:09	1	TAL CAN	MRU
A:Moisture	240-54724-A-16		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Laboratory Chronicle

Lab ID: 240-54724-17 **Client ID: D-VB-D-1-2**

Sample Date/Time: 08/25/2015 14:28 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-17-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-17-A		240-195413	240-195059	08/29/2015 12:56	1	TAL CAN	MRU
A:Moisture	240-54724-A-17		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-17 MS **Client ID: D-VB-D-1-2**

Sample Date/Time: 08/25/2015 14:28 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-17-B MS		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-17-B MS		240-195413	240-195059	08/29/2015 13:20	1	TAL CAN	MRU

Lab ID: 240-54724-17 MSD **Client ID: D-VB-D-1-2**

Sample Date/Time: 08/25/2015 14:28 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-17-C MSD		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	240-54724-B-17-C MSD		240-195413	240-195059	08/29/2015 13:44	1	TAL CAN	MRU

Lab ID: 240-54724-18 **Client ID: D-VB-D-2-2**

Sample Date/Time: 08/25/2015 14:30 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-18-A		240-195413	240-195060	08/27/2015 08:19	4	TAL CAN	NAK
A:8270D	240-54724-B-18-A		240-195413	240-195060	08/29/2015 17:23	4	TAL CAN	MRU
A:Moisture	240-54724-A-18		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Lab ID: 240-54724-19 **Client ID: D-DUP07-082515**

Sample Date/Time: 08/25/2015 00:00 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-19-A		240-195413	240-195060	08/27/2015 08:19	1	TAL CAN	NAK
A:8270D	240-54724-B-19-A		240-195413	240-195060	08/29/2015 11:43	1	TAL CAN	MRU
A:Moisture	240-54724-A-19		240-194999		08/26/2015 17:01	1	TAL CAN	JMB

Client: Tetra Tech, Inc. Job Number: 240-54724-1

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Lab ID: 240-54724-19 MS **Client ID: D-DUP07-082515**

Sample Date/Time: 08/25/2015 00:00 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-19-B MS		240-195413	240-195060	08/27/2015 08:19	1	TAL CAN	NAK
A:8270D	240-54724-B-19-B MS		240-195413	240-195060	08/29/2015 12:07	1	TAL CAN	MRU

Lab ID: 240-54724-19 MSD **Client ID: D-DUP07-082515**

Sample Date/Time: 08/25/2015 00:00 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	240-54724-B-19-C MSD		240-195413	240-195060	08/27/2015 08:19	1	TAL CAN	NAK
A:8270D	240-54724-B-19-C MSD		240-195413	240-195060	08/29/2015 12:31	1	TAL CAN	MRU

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	MB 240-195083/7		240-195083		08/27/2015 12:18	1	TAL CAN	LEE
A:8260C	MB 240-195083/7		240-195083		08/27/2015 12:18	1	TAL CAN	LEE
P:3540C	MB 240-195059/23-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	MB 240-195059/23-A		240-195413	240-195059	08/29/2015 10:06	1	TAL CAN	MRU
P:3540C	MB 240-195060/5-A		240-195413	240-195060	08/27/2015 08:19	1	TAL CAN	NAK
A:8270D	MB 240-195060/5-A		240-195413	240-195060	08/29/2015 10:54	1	TAL CAN	MRU
P:3520C	MB 240-195418/2-A		240-195464	240-195418	08/29/2015 09:45	1	TAL CAN	cs
A:8082A	MB 240-195418/2-A		240-195464	240-195418	08/30/2015 19:33	1	TAL CAN	HMB
P:3010A	MB 240-195294/2-A		240-195529	240-195294	08/28/2015 09:36	1	TAL CAN	WKD
A:6010B	MB 240-195294/2-A		240-195529	240-195294	08/31/2015 07:26	1	TAL CAN	KLC
P:7470A	MB 240-195365/2-A		240-195593	240-195365	08/28/2015 14:00	1	TAL CAN	WKD
A:7470A	MB 240-195365/2-A		240-195593	240-195365	08/31/2015 12:06	1	TAL CAN	WAL

Lab ID: LB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	LB 240-195274/1-B		240-195529	240-195294	08/28/2015 09:36	1	TAL CAN	WKD
A:6010B	LB 240-195274/1-B		240-195529	240-195294	08/31/2015 07:22	1	TAL CAN	KLC
P:7470A	LB 240-195274/1-D		240-195593	240-195365	08/28/2015 14:00	1	TAL CAN	WKD
A:7470A	LB 240-195274/1-D		240-195593	240-195365	08/31/2015 12:05	1	TAL CAN	WAL

Client: Tetra Tech, Inc. Job Number: 240-54724-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCS 240-195083/4		240-195083		08/27/2015 10:48	1	TAL CAN	LEE
A:8260C	LCS 240-195083/4		240-195083		08/27/2015 10:48	1	TAL CAN	LEE
P:3540C	LCS 240-195059/24-A		240-195413	240-195059	08/27/2015 08:14	1	TAL CAN	NAK
A:8270D	LCS 240-195059/24-A		240-195413	240-195059	08/29/2015 10:30	1	TAL CAN	MRU
P:3540C	LCS 240-195060/6-A		240-195413	240-195060	08/27/2015 08:19	1	TAL CAN	NAK
A:8270D	LCS 240-195060/6-A		240-195413	240-195060	08/29/2015 11:19	1	TAL CAN	MRU
P:3520C	LCS 240-195418/3-A		240-195464	240-195418	08/29/2015 09:45	1	TAL CAN	cs
A:8082A	LCS 240-195418/3-A		240-195464	240-195418	08/30/2015 19:51	1	TAL CAN	HMB
P:3010A	LCS 240-195294/3-A		240-195529	240-195294	08/28/2015 09:36	1	TAL CAN	WKD
A:6010B	LCS 240-195294/3-A		240-195529	240-195294	08/31/2015 07:30	1	TAL CAN	KLC
P:7470A	LCS 240-195365/3-A		240-195593	240-195365	08/28/2015 14:00	1	TAL CAN	WKD
A:7470A	LCS 240-195365/3-A		240-195593	240-195365	08/31/2015 12:08	1	TAL CAN	WAL
A:1010A	LCS 240-195256/1		240-195256		08/28/2015 05:45	1	TAL CAN	TPH

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 08/21/2015 11:00 Received Date/Time: 08/26/2015 08:55

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7470A	240-54711-A-4-L MS		240-195593	240-195365	08/28/2015 14:00	1	TAL CAN	WKD
A:7470A	240-54711-A-4-L MS		240-195593	240-195365	08/31/2015 12:11	1	TAL CAN	WAL

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 08/21/2015 11:00 Received Date/Time: 08/26/2015 08:55

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7470A	240-54711-A-4-M MSD ^2		240-195593	240-195365	08/28/2015 14:00	2	TAL CAN	WKD
A:7470A	240-54711-A-4-M MSD ^2		240-195593	240-195365	08/31/2015 12:13	2	TAL CAN	WAL

Lab ID: DU **Client ID: N/A**

Sample Date/Time: 08/25/2015 12:45 Received Date/Time: 08/26/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:1010A	240-54741-A-4 DU		240-195256		08/28/2015 06:12	1	TAL CAN	TPH

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EX10PPMSPK_00017	06/10/16	06/08/15	MEOH, Lot 0000085233	1000 mL	EXPCB1016_00006	2 mL	Aroclor-1016	10 ug/mL
					EXPCB1260_00007	2 mL	Aroclor-1260	10 ug/mL
.EXPCB1016_00006	12/20/23	AccuStandard, Inc., Lot 213121297			(Purchased Reagent)		Aroclor-1016	5000 ug/mL
.EXPCB1260_00007	02/07/23	AccuStandard, Lot B3020274-1A			(Purchased Reagent)		Aroclor-1260	5000 ug/mL
ex2/.2SURRW_00059	05/31/21	08/10/15	MEOH, Lot 147358	2000 mL	EXPESTSURR_00001	2 mL	DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.EXPESTSURR_00001	05/31/21	Restek, Lot A0108779			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
exBENZALDEHYD_00028	08/31/16	08/17/15	MEOH, Lot 147358	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNASPIKE_00049	08/31/16	08/18/15	MEOH, Lot 147358	200 mL	exLIST1_S1_00004	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00002	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.exLIST1_S1_00004	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00002	10/31/16		Restek, Lot A0110231		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00026	02/22/18	08/11/15	MEOH, Lot 147358	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
EXpH(0-14)_00006	03/23/16		Merck, Lot HC432654		(Purchased Reagent)		pH at time of analysis	1 No Unit
EXTCLPBUFF1_00595	08/27/15	08/27/15	DIWATER, Lot 08272015	96 L	EXTCLP5MNAOH_00028	1502.98 g	Sodium Hydroxide	0.313121 %
					EXTCLPACETIC_00018	547.2 mL	Acetic acid	0.57 %
.EXTCLP5MNAOH_00028	03/30/16	03/30/15	DIWATER, Lot 03302015	3 L	EXTCLPNAOH_00021	600 g	Sodium Hydroxide	200 mol/L
..EXTCLPNAOH_00021	03/07/17		Macron, Lot 0000095327		(Purchased Reagent)		Sodium Hydroxide	1 g/g
.EXTCLPACETIC_00018	08/29/19		Macron, Lot 0000090305		(Purchased Reagent)		Acetic acid	1 g/g
EXTCLPFILTERS_00027	05/06/17		Whatman, Lot 9626946		(Purchased Reagent)		Prep Analyte	100 No Unit
EXTCLPHCLW_00046	06/08/16	06/08/15	DIWATER, Lot 06082015	1000 mL	MTTMHCL_00069	83 mL	Hydrogen Chloride	83 mol/L
.MTTMHCL_00069	05/28/17		Macron/Avantor, Lot 0000086340		(Purchased Reagent)		Hydrogen Chloride	100 %
ICPCRIW_00014	01/23/16	07/23/15	DIWATER, Lot DIWATER	1000 mL	MTICPCRI1_00003	1 mL	Arsenic	15 ug/L
							Barium	10 ug/L
							Cadmium	5 ug/L
							Chromium	5 ug/L
							Lead	10 ug/L
							Selenium	20 ug/L
					MTICPCRILL3_00003	1 mL	Silver	5 ug/L
.MTICPCRI1_00003	04/01/16		INORGANIC VENTURES, Lot J2-MEB567105		(Purchased Reagent)		Arsenic	15 ug/mL
							Barium	10 ug/mL
							Cadmium	5 ug/mL
							Chromium	5 ug/mL
							Lead	10 ug/mL
							Selenium	20 ug/mL
.MTICPCRILL3_00003	04/01/16		INORGANIC VENTURES, Lot J2-MEB567107		(Purchased Reagent)		Silver	5 ug/mL
K2S2O8_00030	08/06/17	08/06/15	DIWATER, Lot DIWATER	2.5 L	MTK2S208_00022	125 g	Potassium persulfate	0.05 g/g
.MTK2S208_00022	05/24/20		Macron, Lot 0000070212		(Purchased Reagent)		Potassium persulfate	1 g/g
MT1to1HCL_00056	08/18/17	08/26/15	DIWATER, Lot DIWATER	2500 mL	MTTMHCL_00077	1250 mL	Hydrogen Chloride	0.5 mL/mL
.MTTMHCL_00077	08/18/17		Macron/Avantor, Lot 0000086340		(Purchased Reagent)		Hydrogen Chloride	100 %
MT6500ICV_00026	10/01/15	04/29/15	DIWATER, Lot DIWATER	1000 mL	MTTRICV3_00006	6 mL	Barium	1500 ug/L
							Chromium	1500 ug/L
					MTTRICV5_00012	1.5 mL	Arsenic	375 ug/L
							Cadmium	375 ug/L
							Lead	375 ug/L
							Selenium	375 ug/L
					MTTRICVAG_00005	7.5 mL	Silver	750 ug/L
.MTTRICV3_00006	04/01/16		CPI, Lot 1071810		(Purchased Reagent)		Barium	250 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chromium	250 mg/L
.MTTRICV5_00012	04/01/16	CPI, Lot 1071811			(Purchased Reagent)		Arsenic	250 ug/mL
							Cadmium	250 ug/mL
							Lead	250 ug/mL
							Selenium	250 ug/mL
.MTTRICVAG_00005	10/01/15	CPI, Lot 1065516			(Purchased Reagent)		Silver	100 mg/L
MTAGSPIKEW_00051	12/27/15	07/25/15	DIWATER, Lot DIWATER	1000 mL	MTAG_00005	2.5 mL	Silver	2500 ug/L
					MTTMHNO3_00063	50 mL	Nitric acid	50000000 ug/L
.MTAG_00005	12/27/15	HIGH PURITY STANDARDS, Lot 1401302			(Purchased Reagent)		Silver	1000 ug/mL
.MTTMHNO3_00063	07/16/17	Macron/Avantor, Lot 0000104740			(Purchased Reagent)		Nitric acid	100 %
MTH2S04_00024	06/30/17	Macron, Lot 0000080085			(Purchased Reagent)		Sulfuric acid	100 %
MTHGCALW_00993	08/28/15	08/28/15	DIWATER, Lot DIWATER	100 mL	MTHGCAL_00018	1 mL	Mercury	100 ug/L
					MTTMHNO3_00065	0.125 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00018	08/27/16	INORGANIC VENTURES, Lot J2-HG02136			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00065	08/18/17	Macron/Avantor, Lot 0000114769			(Purchased Reagent)		Nitric acid	100 %
MTHGCALW_00994	08/31/15	08/31/15	DIWATER, Lot DIWATER	100 mL	MTHGCAL_00018	1 mL	Mercury	100 ug/L
					MTTMHNO3_00065	0.125 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00018	08/27/16	INORGANIC VENTURES, Lot J2-HG02136			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00065	08/18/17	Macron/Avantor, Lot 0000114769			(Purchased Reagent)		Nitric acid	100 %
MTHgStd_00016	10/07/15	HPS, Lot 1509117			(Purchased Reagent)		Mercury	1 ug/mL
MTICP1_00043	01/25/16	07/25/15	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00008	50 mL	Al	100000 ug/L
							Arsenic	100000 ug/L
							B	50000 ug/L
							Barium	100000 ug/L
							Be	2500 ug/L
							Cadmium	2500 ug/L
							Chromium	10000 ug/L
							Co	25000 ug/L
							Cu	12500 ug/L
							Fe	50000 ug/L
							Lead	25000 ug/L
							Mn	25000 ug/L
							Ni	25000 ug/L
							Selenium	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00008	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00005	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00063	50 mL	Nitric acid	50000000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTICPSPIKE1A_00008	12/15/15	High Purity Standards, Lot 1434517			(Purchased Reagent)		Al	2000 ug/mL
							Arsenic	2000 ug/mL
							B	1000 ug/mL
							Barium	2000 ug/mL
							Be	50 ug/mL
							Cadmium	50 ug/mL
							Chromium	200 ug/mL
							Co	500 ug/mL
							Cu	250 ug/mL
							Fe	1000 ug/mL
							Lead	500 ug/mL
							Mn	500 ug/mL
							Ni	500 ug/mL
							Selenium	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00008	12/15/15	High Purity Standards, Lot 1434518			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00005	12/15/15	High Purity Standards, Lot 1434513			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00063	07/16/17	Macron/Avantor, Lot 0000104740			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00053	11/19/15	07/10/15	DIWATER, Lot DIWATER	1000 mL	MTTMHNO3_00064	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00010	250 mL	Ca	2500 mg/L
							K	2500 mg/L
							Mg	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00064	07/30/17	Macron/Avantor, Lot 0000114769			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00010	11/19/15	HIGH PURITY STANDARDS, Lot 1424003			(Purchased Reagent)		Ca	10000 ug/mL
							K	10000 ug/mL
							Mg	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00054	02/14/16	08/14/15	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00009	200 mL	Arsenic	500 ug/L
							Barium	2000 ug/L
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Lead	500 ug/L
							Selenium	500 ug/L
					MTICPCCV2_00009	200 mL	Silver	1000 ug/L
.MTICPCCV1_00009	06/01/16	INORGANIC VENTURES, Lot J2-MEB567093			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Lead	5000 ug/L
							Selenium	5000 ug/L
.MTICPCCV2_00009	06/01/16	INORGANIC VENTURES, Lot J2-MEB567104			(Purchased Reagent)		Silver	10000 ug/L
MTICPICSABW_00008	10/01/15	06/08/15	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00003	100 mL	Al	500000 ug/L
							Arsenic	1000 ug/L
							B	500 ug/L
							Barium	500 ug/L
							Be	500 ug/L
							Ca	500000 ug/L
							Cadmium	1000 ug/L
							Chromium	500 ug/L
							Co	500 ug/L
							Cu	500 ug/L
							Fe	200000 ug/L
							K	10000 ug/L
							Lead	1000 ug/L
							Li	500 ug/L
							Mg	500000 ug/L
							Mn	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Selenium	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00003	100 mL	Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Silver	1000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00003	10/01/15	INORGANIC VENTURES, Lot H2-MEB546050			(Purchased Reagent)		Al	5000000 ug/L
							Arsenic	10000 ug/L
							B	5000 ug/L
							Barium	5000 ug/L
							Be	5000 ug/L
							Ca	5000000 ug/L
							Cadmium	10000 ug/L
							Chromium	5000 ug/L
							Co	5000 ug/L
							Cu	5000 ug/L
							Fe	2000000 ug/L
							K	100000 ug/L
							Lead	10000 ug/L
							Li	5000 ug/L
							Mg	5000000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mn	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Selenium	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L
.MTICPICSAB2_00003	10/01/15	INORGANIC VENTURES, Lot H2-MEB546051			(Purchased Reagent)		Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Silver	10000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTKMN04W_00093	08/11/17	08/11/15	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00023	125 g	Potassium Permanganate	50000 mg/L
.MTKMN04_00023	06/08/20	Fisher, Lot 122666			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTKMN04W_00094	08/27/17	08/27/15	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00023	125 g	Potassium Permanganate	50000 mg/L
.MTKMN04_00023	06/08/20	Fisher, Lot 122666			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTTMHNO3_00065	08/18/17	Macron/Avantor, Lot 0000114769			(Purchased Reagent)		Nitric acid	100 %
MTTRICSAW_00027	11/15/15	05/15/15	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00013	100 mL	Al	500000 ug/L
							Ca	500000 ug/L
							Fe	200000 ug/L
							Mg	500000 ug/L
.MTTRICSA_00013	03/03/16	INORGANIC VENTURES, Lot H2-MEB525068			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
SG1248@.05ppm_00016	09/09/15	04/23/15	HEXANE, Lot 0000096800	100 mL	SG1248@10ppm_00006	0.5 mL	PCB-1248 Peak 1	0.05 ug/mL
							PCB-1248 Peak 2	0.05 ug/mL
							PCB-1248 Peak 3	0.05 ug/mL
							PCB-1248 Peak 4	0.05 ug/mL
							PCB-1248 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18	Restek, Lot A086044			(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18	Restek, Lot A0110081			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.1PPM_00013	09/09/15	04/23/15	HEXANE, Lot 0000096800	100 mL	SG1248@10ppm_00006	1 mL	PCB-1248 Peak 1	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 2	0.1 ug/mL
							PCB-1248 Peak 3	0.1 ug/mL
							PCB-1248 Peak 4	0.1 ug/mL
							PCB-1248 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.2ppm_00013	09/09/15	04/23/15	HEXANE, Lot 0000096800	100 mL	SG1248@10ppm_00006	2 mL	PCB-1248 Peak 1	0.2 ug/mL
							PCB-1248 Peak 2	0.2 ug/mL
							PCB-1248 Peak 3	0.2 ug/mL
							PCB-1248 Peak 4	0.2 ug/mL
							PCB-1248 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00017	09/09/15	04/22/15	HEXANE, Lot 00000086560	100 mL	SG1248@10ppm_00006	5 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00018	12/25/15	06/25/15	HEXANE, Lot 00000096800	100 mL	SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00018	12/25/15	06/25/15	HEXANE, Lot 00000096800	100 mL	SG1248@10ppm_00007	5 mL	Aroclor-1248	0.5 ug/mL
							PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
.SG1248@10ppm_00007	03/11/16	03/11/15	Hexane, Lot 0000086559	100 mL	SG1248_00004	1 mL	Aroclor-1248	10 ug/mL
							PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00004	04/30/19		Restek, Lot A092864		(Purchased Reagent)		Aroclor-1248	1000 ug/mL
							PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@1.0ppm_00011	09/09/15	04/23/15	HEXANE, Lot 0000096800	100 mL	SG1248@10ppm_00006	10 mL	PCB-1248 Peak 1	1 ug/mL
							PCB-1248 Peak 2	1 ug/mL
							PCB-1248 Peak 3	1 ug/mL
							PCB-1248 Peak 4	1 ug/mL
							PCB-1248 Peak 5	1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@2.0ppm_00012	09/09/15	04/23/15	HEXANE, Lot 0000096800	100 mL	SG1248@10ppm_00006	20 mL	PCB-1248 Peak 1	2 ug/mL
							PCB-1248 Peak 2	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 3	2 ug/mL
							PCB-1248 Peak 4	2 ug/mL
							PCB-1248 Peak 5	2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660@.05PPM_00014	11/06/15	05/06/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260_00015	0.5 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	0.125 mL	DCB Decachlorobiphenyl	0.0025 ug/mL
							Tetrachloro-m-xylene	0.0025 ug/mL
.SG1016/1260_00015	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SG1016/1260MX_00007	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00007	06/30/20		Restek, Lot a102096		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.2ppm_00012	11/05/15	05/05/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260_00015	2 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	0.5 mL	DCB Decachlorobiphenyl	0.01 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SG1016/1260_00015	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SG1016/1260MX_00007	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00007	06/30/20		Restek, Lot a102096		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG1660@0.5PPM_00053	11/20/15	05/20/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260_00016	5 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	1.25 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00016	05/05/16	05/05/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260MX_00008	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00008	04/30/19	Restek, Lot a092844			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18	Restek, Lot A0110081			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20	Restek, Lot A0103185			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00054	01/01/16	07/01/15	HEXANE, Lot 0000096800	100 mL	SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18	Restek, Lot A0110081			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660@0.5PPM_00054	01/01/16	07/01/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260_00016	5 mL	Aroclor-1016	0.5 ug/mL
							Aroclor-1260	0.5 ug/mL
							PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCGSURRSTK_00006	1.25 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00016	05/05/16	05/05/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260MX_00008	1 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
							PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00008	04/30/19	Restek, Lot a092844			(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
							PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20	Restek, Lot A0103185			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@1.0PPM_00012	11/05/15	05/05/15	HEXANE, Lot 00000968800	100 mL	SG1016/1260_00015	10 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	2.5 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1016/1260_00015	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SG1016/1260MX_00007	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00007	06/30/20		Restek, Lot a102096		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@2.0PPM_00013	11/05/15	05/05/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260_00015	20 mL	PCB-1016 Peak 1	2 ug/mL
							PCB-1016 Peak 2	2 ug/mL
							PCB-1016 Peak 3	2 ug/mL
							PCB-1016 Peak 4	2 ug/mL
							PCB-1016 Peak 5	2 ug/mL
							PCB-1260 Peak 1	2 ug/mL
							PCB-1260 Peak 2	2 ug/mL
							PCB-1260 Peak 3	2 ug/mL
							PCB-1260 Peak 4	2 ug/mL
							PCB-1260 Peak 5	2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	5 mL	DCB Decachlorobiphenyl	0.1 ug/mL
							Tetrachloro-m-xylene	0.1 ug/mL
.SG1016/1260_00015	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SG1016/1260MX_00007	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00007	06/30/20		Restek, Lot a102096		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660ICV@1.0_00008	10/20/15	07/16/15	HEXANE, Lot 0000096800	10 mL	SGPCBISTD_00001	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBISTD_00001	04/22/16	06/01/15	HEXANE, Lot 96800	100 mL	SGPCBIS STOCk_00002	10 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
...ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660ICV@1.0_00008	10/20/15	07/16/15	HEXANE, Lot 0000096800	10 mL	SG1660ICV@10_00007	1 mL	Aroclor-1016	1 ug/mL
							Aroclor-1260	1 ug/mL
					SGPCGSURRSTK_00006	0.25 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1660ICV@10_00007	10/20/15	04/20/15	HEXANE, Lot 0000086560	10 mL	SG1660ICV@100_00003	1 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
..SG1660ICV@100_00003	04/20/16	04/20/15	HEXANE, Lot 0000086560	10 mL	SG 1660 ICV_00010	1 mL	Aroclor-1016	100 ug/mL
							Aroclor-1260	100 ug/mL
...SG 1660 ICV_00010	06/30/19		restek, Lot a094336		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660STD@0.1_00013	11/05/15	05/05/15	HEXANE, Lot 0000096800	100 mL	SG1016/1260_00015	1 mL	PCB-1016 Peak 1	0.1 ug/mL
							PCB-1016 Peak 2	0.1 ug/mL
							PCB-1016 Peak 3	0.1 ug/mL
							PCB-1016 Peak 4	0.1 ug/mL
							PCB-1016 Peak 5	0.1 ug/mL
							PCB-1260 Peak 1	0.1 ug/mL
							PCB-1260 Peak 2	0.1 ug/mL
							PCB-1260 Peak 3	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 4	0.1 ug/mL
							PCB-1260 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	0.25 mL	DCB Decachlorobiphenyl	0.005 ug/mL
							Tetrachloro-m-xylene	0.005 ug/mL
.SG1016/1260_00015	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SG1016/1260MX_00007	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00007	06/30/20	Restek, Lot a102096			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18	Restek, Lot A0110081			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20	Restek, Lot A0103185			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG2154@0.05PP_00009	10/29/15	04/29/15	HEXANE, Lot 000096800	100 mL	SG2154@10ppm_00008	0.5 mL	PCB-1221 Peak 1	0.05 ug/mL
							PCB-1221 Peak 2	0.05 ug/mL
							PCB-1221 Peak 3	0.05 ug/mL
							PCB-1254 Peak 1	0.05 ug/mL
							PCB-1254 Peak 2	0.05 ug/mL
							PCB-1254 Peak 3	0.05 ug/mL
							PCB-1254 Peak 4	0.05 ug/mL
							PCB-1254 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.2PPM_00010	10/29/15	04/29/15	HEXANE, Lot 0000096800	100 mL	SG2154@10ppm_00008	2 mL	PCB-1221 Peak 1	0.2 ug/mL
							PCB-1221 Peak 2	0.2 ug/mL
							PCB-1221 Peak 3	0.2 ug/mL
							PCB-1254 Peak 1	0.2 ug/mL
							PCB-1254 Peak 2	0.2 ug/mL
							PCB-1254 Peak 3	0.2 ug/mL
							PCB-1254 Peak 4	0.2 ug/mL
							PCB-1254 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00019	11/24/15	06/24/15	HEXANE, Lot 00000086560	100 mL	SG2154@10ppm_00008	5 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
							PCB-1254 Peak 1	0.5 ug/mL
							PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00019	11/24/15	06/24/15	HEXANE, Lot 00000086560	100 mL	SG2154@10ppm_00008	5 mL	Aroclor-1221	0.5 ug/mL
							Aroclor-1254	0.5 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	Aroclor-1221	10 ug/mL
					SGPCB1254_00007	1 mL	Aroclor-1254	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		Aroclor-1221	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		Aroclor-1254	1000 ug/mL
SG2154@1.0PPM_00011	10/29/15	04/29/15	HEXANE, Lot 0000096800	100 mL	SG2154@10ppm_00008	10 mL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
							PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@2.0PPM_00010	10/29/15	04/29/15	HEXANE, Lot 0000096800	100 mL	SG2154@10ppm_00008	20 mL	PCB-1221 Peak 1	2 ug/mL
							PCB-1221 Peak 2	2 ug/mL
							PCB-1221 Peak 3	2 ug/mL
							PCB-1254 Peak 1	2 ug/mL
							PCB-1254 Peak 2	2 ug/mL
							PCB-1254 Peak 3	2 ug/mL
							PCB-1254 Peak 4	2 ug/mL
							PCB-1254 Peak 5	2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@O.1PPM_00011	10/29/15	04/29/15	HEXANE, Lot 0000096800	100 mL	SG2154@10ppm_00008	1 mL	PCB-1221 Peak 1	0.1 ug/mL
							PCB-1221 Peak 2	0.1 ug/mL
							PCB-1221 Peak 3	0.1 ug/mL
							PCB-1254 Peak 1	0.1 ug/mL
							PCB-1254 Peak 2	0.1 ug/mL
							PCB-1254 Peak 3	0.1 ug/mL
							PCB-1254 Peak 4	0.1 ug/mL
							PCB-1254 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.05PPM_00003	10/24/15	04/24/15	HEXANE, Lot 0000096800	100 mL	SG32/6210PPM_00002	0.5 mL	PCB-1232 Peak 1	50 ug/L
							PCB-1232 Peak 2	50 ug/L
							PCB-1232 Peak 3	50 ug/L
							PCB-1232 Peak 4	50 ug/L
							PCB-1232 Peak 5	50 ug/L
							PCB-1262 Peak 1	50 ug/L
							PCB-1262 Peak 2	50 ug/L
							PCB-1262 Peak 3	50 ug/L
							PCB-1262 Peak 4	50 ug/L
							PCB-1262 Peak 5	50 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.2PPM_00003	10/24/15	04/24/15	HEXANE, Lot 0000096800	100 mL	SG32/6210PPM_00002	2 mL	PCB-1232 Peak 1	200 ug/L
							PCB-1232 Peak 2	200 ug/L
							PCB-1232 Peak 3	200 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 4	200 ug/L
							PCB-1232 Peak 5	200 ug/L
							PCB-1262 Peak 1	200 ug/L
							PCB-1262 Peak 2	200 ug/L
							PCB-1262 Peak 3	200 ug/L
							PCB-1262 Peak 4	200 ug/L
							PCB-1262 Peak 5	200 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.1PPM_00004	10/24/15	04/24/15	HEXANE, Lot 0000096800	100 mL	SG32/6210PPM_00002	1 mL	PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
							PCB-1262 Peak 1	100 ug/L
							PCB-1262 Peak 2	100 ug/L
							PCB-1262 Peak 3	100 ug/L
							PCB-1262 Peak 4	100 ug/L
							PCB-1262 Peak 5	100 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00008	12/24/15	06/24/15	HEXANE, Lot 0000086560	100 mL	SG32/6210PPM_00002	5 mL	PCB-1232 Peak 1	500 ug/L
							PCB-1232 Peak 2	500 ug/L
							PCB-1232 Peak 3	500 ug/L
							PCB-1232 Peak 4	500 ug/L
							PCB-1232 Peak 5	500 ug/L
							PCB-1262 Peak 1	500 ug/L
							PCB-1262 Peak 2	500 ug/L
							PCB-1262 Peak 3	500 ug/L
							PCB-1262 Peak 4	500 ug/L
							PCB-1262 Peak 5	500 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00008	12/24/15	06/24/15	HEXANE, Lot 0000086560	100 mL	SG32/6210PPM_00002	5 mL	Aroclor-1232	500 ug/L
							PCB-1262	500 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	Aroclor-1232	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		Aroclor-1232	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262	1000 ug/mL
SG3262@1.0PPM_00003	10/24/15	04/24/15	HEXANE, Lot 0000096800	100 mL	SG32/6210PPM_00002	10 mL	PCB-1232 Peak 1	1000 ug/L
							PCB-1232 Peak 2	1000 ug/L
							PCB-1232 Peak 3	1000 ug/L
							PCB-1232 Peak 4	1000 ug/L
							PCB-1232 Peak 5	1000 ug/L
							PCB-1262 Peak 1	1000 ug/L
							PCB-1262 Peak 2	1000 ug/L
							PCB-1262 Peak 3	1000 ug/L
							PCB-1262 Peak 4	1000 ug/L
							PCB-1262 Peak 5	1000 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@2.0ppm_00003	10/24/15	04/24/15	HEXANE, Lot 0000096800	100 mL	SG32/6210PPM_00002	20 mL	PCB-1232 Peak 1	2000 ug/L
							PCB-1232 Peak 2	2000 ug/L
							PCB-1232 Peak 3	2000 ug/L
							PCB-1232 Peak 4	2000 ug/L
							PCB-1232 Peak 5	2000 ug/L
							PCB-1262 Peak 1	2000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 2	2000 ug/L
							PCB-1262 Peak 3	2000 ug/L
							PCB-1262 Peak 4	2000 ug/L
							PCB-1262 Peak 5	2000 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG42/68@1.0PP_00006	10/28/15	04/28/15	HEXANE, Lot 0000096800	100 mL	SG42/6810PPM_00002	10 mL	PCB-1242 Peak 1	1000 ug/L
							PCB-1242 Peak 2	1000 ug/L
							PCB-1242 Peak 3	1000 ug/L
							PCB-1242 Peak 4	1000 ug/L
							PCB-1242 Peak 5	1000 ug/L
							PCB-1268 Peak 1	1000 ug/L
							PCB-1268 Peak 2	1000 ug/L
							PCB-1268 Peak 3	1000 ug/L
							PCB-1268 Peak 4	1000 ug/L
							PCB-1268 Peak 5	1000 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.05PPM_00004	10/28/15	04/28/15	HEXANE, Lot 0000096800	100 mL	SG42/6810PPM_00002	0.5 mL	PCB-1242 Peak 1	50 ug/L
							PCB-1242 Peak 2	50 ug/L
							PCB-1242 Peak 3	50 ug/L
							PCB-1242 Peak 4	50 ug/L
							PCB-1242 Peak 5	50 ug/L
							PCB-1268 Peak 1	50 ug/L
							PCB-1268 Peak 2	50 ug/L
							PCB-1268 Peak 3	50 ug/L
							PCB-1268 Peak 4	50 ug/L
							PCB-1268 Peak 5	50 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.1PPM_00004	10/28/15	04/28/15	HEXANE, Lot 0000096800	100 mL	SG42/6810PPM_00002	1 mL	PCB-1242 Peak 1	100 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.2PPM_00003	10/28/15	04/28/15	HEXANE, Lot 0000096800	100 mL	SG42/6810PPM_00002	2 mL	PCB-1242 Peak 1	200 ug/L
							PCB-1242 Peak 2	200 ug/L
							PCB-1242 Peak 3	200 ug/L
							PCB-1242 Peak 4	200 ug/L
							PCB-1242 Peak 5	200 ug/L
							PCB-1268 Peak 1	200 ug/L
							PCB-1268 Peak 2	200 ug/L
							PCB-1268 Peak 3	200 ug/L
							PCB-1268 Peak 4	200 ug/L
							PCB-1268 Peak 5	200 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00007	12/24/15	06/24/15	HEXANE, Lot 0000086560	100 mL	SG42/6810PPM_00002	5 mL	PCB-1242 Peak 1	500 ug/L
							PCB-1242 Peak 2	500 ug/L
							PCB-1242 Peak 3	500 ug/L
							PCB-1242 Peak 4	500 ug/L
							PCB-1242 Peak 5	500 ug/L
							PCB-1268 Peak 1	500 ug/L
							PCB-1268 Peak 2	500 ug/L
							PCB-1268 Peak 3	500 ug/L
							PCB-1268 Peak 4	500 ug/L
							PCB-1268 Peak 5	500 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00007	12/24/15	06/24/15	HEXANE, Lot 0000086560	100 mL	SG42/6810PPM_00002	5 mL	Aroclor-1242	500 ug/L
							PCB-1268	500 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	Aroclor-1242	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		Aroclor-1242	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268	1000 ug/mL
SGPCBISTD_00001	04/22/16	06/01/15	HEXANE, Lot 96800	100 mL	SGPCBIS STOCk_00002	10 mL	1-Bromo-2-nitrobenzene	1 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Chrysene	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Naphthalene	10 ug/mL
							Phenanthrene	10 ug/mL
							Pyrene	10 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
VM50IS_00050	12/11/15	06/11/15	MEOH, Lot 85233	100 mL	vm30241_00002	2 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.vm30241_00002	11/30/19		restek, Lot A0107133		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm50ss_stk_00065	09/08/15	03/08/15	MEOH, Lot 0000085233	200 mL	VM567650_00021	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00021	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00066	12/11/15	06/11/15	MEOH, Lot 0000085233	200 mL	VM567650_00021	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00021	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VMAROLISTDW_00111	08/15/15	08/08/15	MEOH, Lot na	3 mL	VMACROLSTD_00028	3 mL	Acrolein	250 ug/mL
.VMACROLSTD_00028	09/30/15	07/31/15	MEOH, Lot 147358	20 mL	VM568720S_00008	250 uL	Acrolein	250 ug/mL
..VM568720S_00008	09/30/15		restek, Lot A0111005		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASA9W_00068	08/19/15	08/12/15	MEOH, Lot NA	2 mL	VMFASA9_00005	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
.VMFASA9_00005	11/30/15	06/30/15	MEOH, Lot +161620000085233jb	100 mL	VM568723S_00001	2.5 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm569725S_00001	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
..VM568723S_00001	04/30/16		restek, Lot A0102749		(Purchased Reagent)		Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
..vm569725S_00001	11/30/15		restek, Lot A0111261		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
VMFASGW_00109	08/17/15	08/10/15	MEOH, Lot NA	2 mL	VMFASG_00032	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00032	08/28/15	07/28/15	MEOH, Lot 147358	50 mL	VM567645S_00017	1.25 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	50 ug/mL
..VM567645S_00017	11/30/15	Restek, Lot A099261			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
VMFASGW_00111	08/28/15	08/25/15	MEOH, Lot NA	2 mL	VMFASG_00032	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00032	08/28/15	07/28/15	MEOH, Lot 147358	50 mL	VM567645S_00017	1.25 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..VM567645S_00017	11/30/15	Restek, Lot A099261			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
VMFASPW_00111	08/17/15	08/10/15	MEOH, Lot n/a	2 mL	VMRFASP_00022	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00022	10/31/15	07/28/15	MEOH, Lot 147358	100 mL	VM567641S_00007	2.5 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM567642S_00005	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00002	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00002	1 mL	Vinyl acetate	50 ug/mL
..VM567641S_00007	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642S_00005	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM569723S_00002	03/31/18		Restek, Lot A0110013		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00002	10/31/15		Restek, Lot A0110474		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMFASPW_00113	09/01/15	08/25/15	MEOH, Lot n/a	2 mL	VMRFASP_00022	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00022	10/31/15	07/28/15	MEOH, Lot 147358	100 mL	VM567641S_00007	2.5 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM567642S_00005	1 mL	2-Butanone (MEK)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00002	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00002	1 mL	Vinyl acetate	50 ug/mL
..VM567641S_00007	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642S_00005	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM569723S_00002	03/31/18		Restek, Lot A0110013		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00002	10/31/15		Restek, Lot A0110474		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRA9W_00119	08/17/15	08/10/15	MEOH, Lot NA	1 mL	VMRA9_00013	1 mL	Cyclohexanone	500 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
							n-Butyl acetate	50 ug/mL
							2-Methylnaphthalene	100 ug/mL
.VMRA9_00013	11/30/15	06/30/15	MEOH, Lot +161620000085233jb	50 mL	VM567648_00014	1.25 mL	Cyclohexanone	500 ug/mL
					VM568723_00001	1.25 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm569725_00002	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
							n-Butyl acetate	50 ug/mL
					vm569726_00001	2 mL	2-Methylnaphthalene	100 ug/mL
..VM567648_00014	02/29/16		Restek, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
..VM568723_00001	12/31/15		restek, Lot A099930		(Purchased Reagent)		Acetonitrile	20000 ug/mL
							Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
..vm569725_00002	11/30/15		restek, Lot A0111228		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butanol	62500 ug/mL
							n-Butyl acetate	2500 ug/mL
..vm569726_00001	04/30/17		Restek, Lot A0110130		(Purchased Reagent)		2-Methylnaphthalene	2500 ug/mL
VMRA9W_00121	09/02/15	08/26/15	MEOH, Lot NA	1 mL	VMRA9_00013	1 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
.VMRA9_00013	11/30/15	06/30/15	MEOH, Lot +161620000085233jb	50 mL	VM568723_00001	1.25 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm569725_00002	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
..VM568723_00001	12/31/15		restek, Lot A099930		(Purchased Reagent)		Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
..vm569725_00002	11/30/15		restek, Lot A0111228		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
VMRGAS_00114	08/20/15	08/13/15	MEOH, Lot 147358	10 mL	vm569722_00002	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	50 ug/mL
.vm569722_00002	01/31/18		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00115	08/28/15	08/21/15	MEOH, Lot 147358	10 mL	vm569722_00002	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00002	01/31/18		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRPRIMW_00142	08/17/15	08/10/15	MEOH, Lot NA	1 mL	VMRPRIM_00012	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00012	08/31/15	05/27/15	MEOH, Lot +161620000085233JB	50 mL	VM567641_00013	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM567642_00015	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00001	0.5 mL	Vinyl acetate	50 ug/mL
..VM567641_00013	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
..VM567642_00015	02/29/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16		restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM569724_00001	08/31/15		Restek, Lot A0109190		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00145	08/31/15	08/25/15	MEOH, Lot NA	1 mL	VMRPRIM_00012	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00012	08/31/15	05/27/15	MEOH, Lot +161620000085233JB	50 mL	VM567641_00013	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM567642_00015	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00001	0.5 mL	Vinyl acetate	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM567641_00013	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642_00015	02/29/16	Restek, Lot A093365			(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16	restek, Lot A093368			(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM569724_00001	08/31/15	Restek, Lot A0109190			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WCP-XYLENE_00017	01/19/17	Fisher Scientific, Lot 146880			(Purchased Reagent)		Flashpoint	81 Degrees F

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-54724-1
Project/Site: MRC Soil Remedy Block D Area F

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	T104704517-15-5
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
WC-DFRAC-082515	240-54724-11	101	98	95	101
TB-082515	240-54724-12	101	99	99	102
	MB 240-195083/7	96	94	87	92
	LCS 240-195083/4	103	102	95	102
WC-DFRAC-082515 MS	240-54724-11 MS	99	102	97	105
WC-DFRAC-082515 MSD	240-54724-11 MSD	94	92	91	104

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	79-120
DCA = 1,2-Dichloroethane-d4 (Surr)	78-125
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	61-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8729.D

Lab ID: LCS 240-195083/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.8	108	80-120	
1,1,1-Trichloroethane	10.0	10.5	105	77-123	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	71-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.11	91	67-138	
1,1-Dichloroethane	10.0	10.6	106	79-125	
1,1-Dichloroethene	10.0	9.56	96	76-124	
1,1-Dichloropropene	10.0	11.1	111	80-128	
1,2,3-Trichlorobenzene	10.0	9.07	91	66-120	
1,2,3-Trichloropropane	10.0	10.8	108	72-126	
1,2,4-Trichlorobenzene	10.0	9.23	92	61-120	
1,2,4-Trimethylbenzene	10.0	10.5	105	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.32	93	50-132	
1,2-Dichlorobenzene	10.0	9.28	93	79-120	
1,2-Dichloroethane	10.0	9.84	98	80-120	
1,2-Dichloropropane	10.0	10.5	105	78-124	
1,3-Dichlorobenzene	10.0	9.90	99	79-120	
1,3-Dichloropropane	10.0	9.91	99	80-120	
1,4-Dichlorobenzene	10.0	10.1	101	79-120	
2,2-Dichloropropane	10.0	10.5	105	71-122	
2-Butanone (MEK)	20.0	20.4	102	56-138	
2-Chloroethyl vinyl ether	10.0	9.55 J	95	54-139	
2-Chlorotoluene	10.0	11.1	111	80-120	
2-Hexanone	20.0	17.4	87	55-141	
4-Chlorotoluene	10.0	11.2	112	80-120	
p-Isopropyltoluene	10.0	10.1	101	77-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.7	94	64-135	
Acetone	20.0	25.1	125	34-148	
Benzene	10.0	10.2	102	80-120	
Bromobenzene	10.0	11.4	114	80-120	
Bromoform	10.0	9.81	98	56-122	
Bromomethane	10.0	8.33	83	38-132	
Carbon disulfide	10.0	10.4	104	65-144	
Carbon tetrachloride	10.0	12.0	120	77-131	
Chlorobenzene	10.0	10.3	103	80-120	
Dibromochloromethane	10.0	10.1	101	74-120	
Chloroethane	10.0	9.08	91	36-126	
Chloroform	10.0	9.77	98	80-120	
Chloromethane	10.0	9.12	91	48-133	
cis-1,2-Dichloroethene	10.0	10.1	101	79-120	
cis-1,3-Dichloropropene	10.0	10.2	102	74-126	
Dibromomethane	10.0	9.94	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8729.D

Lab ID: LCS 240-195083/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	10.0	9.75	98	80-120	
Dichlorodifluoromethane	10.0	7.29	73	23-136	
Bromodichloromethane	10.0	10.2	102	80-120	
tert-Butyl alcohol (TBA)	100	95.6	96	38-144	
Ethylbenzene	10.0	10.1	101	80-120	
Hexachlorobutadiene	10.0	8.56	86	62-120	
Isopropylbenzene	10.0	10.3	103	77-120	
Methyl tert-butyl ether	10.0	10.0	100	69-121	
Methylene Chloride	10.0	9.62	96	77-129	
m-Xylene & p-Xylene	10.0	10.1	101	80-120	
Naphthalene	10.0	8.70	87	53-121	
n-Butylbenzene	10.0	9.50	95	74-120	
N-Propylbenzene	10.0	11.2	112	79-123	
o-Xylene	10.0	10.1	101	80-120	
sec-Butylbenzene	10.0	10.1	101	77-120	
Styrene	10.0	9.58	96	76-122	
Tetrachloroethene	10.0	9.72	97	78-121	
Toluene	10.0	9.39	94	80-120	
trans-1,2-Dichloroethene	10.0	10.4	104	80-124	
trans-1,3-Dichloropropene	10.0	10.3	103	75-131	
Trichloroethene	10.0	9.95	99	80-121	
Trichlorofluoromethane	10.0	9.26	93	61-133	
Vinyl acetate	10.0	8.39	84	27-160	
Vinyl chloride	10.0	8.44	84	52-121	
Xylenes, Total	20.0	20.2	101	80-120	
tert-Butylbenzene	10.0	10.6	106	77-121	
1,2-Dibromoethane	10.0	9.29	93	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8738.D

Lab ID: 240-54724-11 MS Client ID: WC-DFRAC-082515 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	0.28 U	10.7	107	72-120	
1,1,1-Trichloroethane	10.0	0.44 U	10.2	102	69-122	
1,1,2,2-Tetrachloroethane	10.0	0.22 U	11.2	112	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	0.45 U	9.06	91	44-140	
1,1-Dichloroethane	10.0	0.30 U	11.0	110	73-124	
1,1-Dichloroethene	10.0	0.45 U	9.38	94	67-124	
1,1-Dichloropropene	10.0	0.42 U	11.1	111	81-126	
1,2,3-Trichlorobenzene	10.0	0.37 U	8.44	84	46-120	
1,2,3-Trichloropropane	10.0	0.44 U	11.3	113	58-135	
1,2,4-Trichlorobenzene	10.0	0.32 U	8.96	90	48-120	
1,2,4-Trimethylbenzene	10.0	0.41 U	10.0	100	64-122	
1,2-Dibromo-3-Chloropropane	10.0	0.82 U	10.2	102	42-130	
1,2-Dichlorobenzene	10.0	0.25 U	8.81	88	67-118	
1,2-Dichloroethane	10.0	0.23 U	10.1	101	74-125	
1,2-Dichloropropane	10.0	0.25 U	10.5	105	73-122	
1,3-Dichlorobenzene	10.0	0.19 U	9.64	96	65-120	
1,3-Dichloropropane	10.0	0.19 U	10.1	101	59-133	
1,4-Dichlorobenzene	10.0	0.27 U	9.71	97	66-120	
2,2-Dichloropropane	10.0	0.26 U	10.4	104	48-126	
2-Butanone (MEK)	20.0	1.1 J	20.9	99	49-132	
2-Chloroethyl vinyl ether	10.0	0.59 U	1.28 J	13	10-150	
2-Chlorotoluene	10.0	0.40 U	11.0	110	70-122	
2-Hexanone	20.0	0.48 U	20.9	105	49-142	
4-Chlorotoluene	10.0	0.29 U	11.1	111	74-120	
p-Isopropyltoluene	10.0	0.43 U	9.41	94	61-123	
4-Methyl-2-pentanone (MIBK)	20.0	0.99 U	23.1	115	58-136	
Acetone	20.0	6.2 J	25.7	97	32-126	
Benzene	10.0	0.35 U	10.3	103	73-121	
Bromobenzene	10.0	0.35 U	11.0	110	73-120	
Bromoform	10.0	0.56 U	10.8	108	45-121	
Bromomethane	10.0	0.44 U	7.67	77	26-136	
Carbon disulfide	10.0	0.38 U	10.9	109	54-144	
Carbon tetrachloride	10.0	0.43 U	11.5	115	65-129	
Chlorobenzene	10.0	0.25 U	10.3	103	72-120	
Dibromochloromethane	10.0	0.43 U	10.4	104	62-122	
Chloroethane	10.0	0.32 U	8.02	80	27-131	
Chloroform	10.0	0.25 U	9.91	99	73-121	
Chloromethane	10.0	0.82 J	9.10	83	39-134	
cis-1,2-Dichloroethene	10.0	0.26 U	10.7	107	66-124	
cis-1,3-Dichloropropene	10.0	0.46 U	10.5	105	60-120	
Dibromomethane	10.0	0.42 U	10.0	100	63-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8738.D

Lab ID: 240-54724-11 MS Client ID: WC-DFRAC-082515 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromochloromethane	10.0	0.50 U	10.3	103	60-132	
Dichlorodifluoromethane	10.0	0.32 U	6.83	68	14-137	
Bromodichloromethane	10.0	0.29 U	10.4	104	72-120	
tert-Butyl alcohol (TBA)	100	4.9 U	102	102	70-130	
Ethylbenzene	10.0	0.25 U	10.3	103	68-121	
Hexachlorobutadiene	10.0	0.35 U	7.89	79	48-120	
Isopropylbenzene	10.0	0.35 U	10.5	105	61-122	
Methyl tert-butyl ether	10.0	0.20 U	10.5	105	61-121	
Methylene Chloride	10.0	0.33 U	9.74	97	70-124	
m-Xylene & p-Xylene	10.0	0.24 U	10.4	104	66-123	
Naphthalene	10.0	0.72 J	9.87	91	38-128	
n-Butylbenzene	10.0	0.31 U	8.62	86	54-126	
N-Propylbenzene	10.0	0.40 U	10.9	109	63-129	
o-Xylene	10.0	0.25 U	10.8	108	68-121	
sec-Butylbenzene	10.0	0.48 U	9.65	97	61-123	
Styrene	10.0	0.45 U	10.1	101	64-126	
Tetrachloroethene	10.0	0.31 U	10.2	102	59-125	
Toluene	10.0	0.23 U	9.68	97	72-122	
trans-1,2-Dichloroethene	10.0	0.30 U	10.5	105	72-125	
trans-1,3-Dichloropropene	10.0	0.56 U	10.6	106	58-132	
Trichloroethene	10.0	0.22 U	9.91	99	61-129	
Trichlorofluoromethane	10.0	0.49 U	8.47	85	49-133	
Vinyl acetate	10.0	0.41 U	8.88	89	26-189	
Vinyl chloride	10.0	0.29 U	7.40	74	44-122	
Xylenes, Total	20.0	0.52 U	21.2	106	67-122	
tert-Butylbenzene	10.0	0.41 U	9.86	99	63-122	
1,2-Dibromoethane	10.0	0.32 U	9.88	99	69-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8739.D

Lab ID: 240-54724-11 MSD Client ID: WC-DFRAC-082515 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.3	103	4	22	72-120	
1,1,1-Trichloroethane	10.0	9.92	99	3	14	69-122	
1,1,2,2-Tetrachloroethane	10.0	11.6	116	3	18	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.33	93	3	35	44-140	
1,1-Dichloroethane	10.0	10.6	106	4	14	73-124	
1,1-Dichloroethene	10.0	10.0	100	6	24	67-124	
1,1-Dichloropropene	10.0	10.8	108	3	11	81-126	
1,2,3-Trichlorobenzene	10.0	8.90	89	5	35	46-120	
1,2,3-Trichloropropane	10.0	11.5	115	2	25	58-135	
1,2,4-Trichlorobenzene	10.0	8.68	87	3	28	48-120	
1,2,4-Trimethylbenzene	10.0	10.1	101	1	14	64-122	
1,2-Dibromo-3-Chloropropane	10.0	10.1	101	0	24	42-130	
1,2-Dichlorobenzene	10.0	9.22	92	5	15	67-118	
1,2-Dichloroethane	10.0	9.66	97	5	24	74-125	
1,2-Dichloropropane	10.0	10.2	102	2	15	73-122	
1,3-Dichlorobenzene	10.0	9.41	94	2	15	65-120	
1,3-Dichloropropane	10.0	9.16	92	10	35	59-133	
1,4-Dichlorobenzene	10.0	9.62	96	1	16	66-120	
2,2-Dichloropropane	10.0	10.2	102	2	30	48-126	
2-Butanone (MEK)	20.0	20.1	95	4	19	49-132	
2-Chloroethyl vinyl ether	10.0	0.59 U	0	NC	30	10-150	F1
2-Chlorotoluene	10.0	11.3	113	3	18	70-122	
2-Hexanone	20.0	19.2	96	9	27	49-142	
4-Chlorotoluene	10.0	11.3	113	1	15	74-120	
p-Isopropyltoluene	10.0	9.47	95	1	27	61-123	
4-Methyl-2-pentanone (MIBK)	20.0	21.8	109	5	32	58-136	
Acetone	20.0	24.4	91	5	28	32-126	
Benzene	10.0	9.90	99	4	13	73-121	
Bromobenzene	10.0	11.3	113	3	13	73-120	
Bromoform	10.0	10.4	104	4	19	45-121	
Bromomethane	10.0	8.24	82	7	35	26-136	
Carbon disulfide	10.0	10.9	109	0	34	54-144	
Carbon tetrachloride	10.0	11.4	114	1	20	65-129	
Chlorobenzene	10.0	9.82	98	5	15	72-120	
Dibromochloromethane	10.0	9.76	98	7	19	62-122	
Chloroethane	10.0	8.74	87	9	35	27-131	
Chloroform	10.0	9.39	94	5	17	73-121	
Chloromethane	10.0	10.2	94	11	20	39-134	
cis-1,2-Dichloroethene	10.0	10.1	101	6	22	66-124	
cis-1,3-Dichloropropene	10.0	10.1	101	4	21	60-120	
Dibromomethane	10.0	9.98	100	0	35	63-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8739.D

Lab ID: 240-54724-11 MSD Client ID: WC-DFRAC-082515 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromochloromethane	10.0	9.74	97	5	35	60-132	
Dichlorodifluoromethane	10.0	7.29	73	7	34	14-137	
Bromodichloromethane	10.0	10.0	100	3	19	72-120	
tert-Butyl alcohol (TBA)	100	99.3	99	3	30	70-130	
Ethylbenzene	10.0	10.1	101	2	16	68-121	
Hexachlorobutadiene	10.0	7.51	75	5	34	48-120	
Isopropylbenzene	10.0	10.4	104	1	20	61-122	
Methyl tert-butyl ether	10.0	10.0	100	5	12	61-121	
Methylene Chloride	10.0	9.38	94	4	14	70-124	
m-Xylene & p-Xylene	10.0	10.0	100	3	15	66-123	
Naphthalene	10.0	10.3	95	4	35	38-128	
n-Butylbenzene	10.0	8.91	89	3	33	54-126	
N-Propylbenzene	10.0	11.5	115	5	29	63-129	
o-Xylene	10.0	10.3	103	5	14	68-121	
sec-Butylbenzene	10.0	10.0	100	4	29	61-123	
Styrene	10.0	9.83	98	2	15	64-126	
Tetrachloroethene	10.0	9.45	94	7	20	59-125	
Toluene	10.0	9.03	90	7	15	72-122	
trans-1,2-Dichloroethene	10.0	10.5	105	0	25	72-125	
trans-1,3-Dichloropropene	10.0	9.73	97	8	22	58-132	
Trichloroethene	10.0	9.69	97	2	14	61-129	
Trichlorofluoromethane	10.0	9.23	92	9	25	49-133	
Vinyl acetate	10.0	8.66	87	3	15	26-189	
Vinyl chloride	10.0	8.10	81	9	35	44-122	
Xylenes, Total	20.0	20.3	102	4	14	67-122	
tert-Butylbenzene	10.0	10.5	105	6	24	63-122	
1,2-Dibromoethane	10.0	9.42	94	5	24	69-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: UXJ8733.D Lab Sample ID: MB 240-195083/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 08/27/2015 12:18

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195083/4	UXJ8729.D	08/27/2015 10:48
TB-082515	240-54724-12	UXJ8734.D	08/27/2015 12:41
WC-DFRAC-082515	240-54724-11	UXJ8735.D	08/27/2015 13:04
WC-DFRAC-082515 MS	240-54724-11 MS	UXJ8738.D	08/27/2015 14:12
WC-DFRAC-082515 MSD	240-54724-11 MSD	UXJ8739.D	08/27/2015 14:35

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: BFB813A.D BFB Injection Date: 08/13/2015

Instrument ID: A3UX11 BFB Injection Time: 10:51

Analysis Batch No.: 193142

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.8	
75	30.0 - 60.0 % of mass 95	51.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	86.1	
175	5.0 - 9.0 % of mass 174	7.5	(8.7)1
176	95.0 - 101.0 % of mass 174	83.4	(96.9)1
177	5.0 - 9.0 % of mass 176	5.2	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-193142/2	UXJ8315B.D	08/13/2015	12:22
	STD8260 240-193142/3	UXJ8316B.D	08/13/2015	12:45
	STD8260 240-193142/4	UXJ8317B.D	08/13/2015	13:07
	STD8260 240-193142/5	UXJ8318B.D	08/13/2015	13:30
	STD8260 240-193142/6	UXJ8319B.D	08/13/2015	13:52
	STD8260 240-193142/7	UXJ8320.D	08/13/2015	14:14
	ICV 240-193142/14	UXJ8321.D	08/13/2015	14:37
	STD6 240-193142/8	UXJ8322.D	08/13/2015	14:59
	STD5 240-193142/9	UXJ8323.D	08/13/2015	15:22
	STD4 240-193142/10	UXJ8324.D	08/13/2015	15:45
	STD3 240-193142/11	UXJ8325.D	08/13/2015	16:08
	STD2 240-193142/12	UXJ8326.D	08/13/2015	16:30
	STD1 240-193142/13	UXJ8327.D	08/13/2015	16:53
	ICV 240-193142/15	UXJ8328.D	08/13/2015	17:16

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: BFB827.D BFB Injection Date: 08/27/2015

Instrument ID: A3UX11 BFB Injection Time: 09:56

Analysis Batch No.: 195083

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	52.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	87.5	
175	5.0 - 9.0 % of mass 174	7.1	(8.2)1
176	95.0 - 101.0 % of mass 174	84.7	(96.8)1
177	5.0 - 9.0 % of mass 176	5.5	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-195083/2	UXJ8728.D	08/27/2015	10:26
	LCS 240-195083/4	UXJ8729.D	08/27/2015	10:48
	CCV 240-195083/3	UXJ8730.D	08/27/2015	11:11
	MB 240-195083/7	UXJ8733.D	08/27/2015	12:18
TB-082515	240-54724-12	UXJ8734.D	08/27/2015	12:41
WC-DFRAC-082515	240-54724-11	UXJ8735.D	08/27/2015	13:04
WC-DFRAC-082515 MS	240-54724-11 MS	UXJ8738.D	08/27/2015	14:12
WC-DFRAC-082515 MSD	240-54724-11 MSD	UXJ8739.D	08/27/2015	14:35

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD8260 240-193142/4 Date Analyzed: 08/13/2015 13:07

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ8317B.D Heated Purge: (Y/N) N

Calibration ID: 30116

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1483216	5.12	802597	7.78	305058	10.03
UPPER LIMIT		2966432	5.62	1605194	8.28	610116	10.53
LOWER LIMIT		741608	4.62	401299	7.28	152529	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-193142/14		1345281	5.12	739965	7.78	286721	10.03
ICV 240-193142/15		1257324	5.12	719253	7.78	261644	10.03
CCVIS 240-195083/2		1701068	5.12	975525	7.78	342843	10.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCVIS 240-195083/2 Date Analyzed: 08/27/2015 10:26

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ8728.D Heated Purge: (Y/N) N

Calibration ID: 30118

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1701068	5.12	975525	7.78	342843	10.03
UPPER LIMIT		3402136	5.62	1951050	8.28	685686	10.53
LOWER LIMIT		850534	4.62	487763	7.28	171422	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-195083/4		1456738	5.12	852635	7.78	288794	10.03
CCV 240-195083/3		1402332	5.12	827109	7.78	258665	10.03
MB 240-195083/7		1286551	5.12	806001	7.78	260187	10.03
240-54724-12	TB-082515	1209388	5.12	747037	7.78	243456	10.03
240-54724-11	WC-DFRAC-082515	1290415	5.12	773744	7.78	250845	10.03
240-54724-11 MS	WC-DFRAC-082515 MS	1339490	5.12	791331	7.78	288903	10.03
240-54724-11 MSD	WC-DFRAC-082515 MSD	1349202	5.12	801550	7.78	274651	10.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.1	J B	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U F1	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	6.2	J B	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.82	J	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.72	J	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		79-120
460-00-4	4-Bromofluorobenzene (Surr)	101		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		78-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	0.53	U	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	0.94	U	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.45	U	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		79-120
460-00-4	4-Bromofluorobenzene (Surr)	102		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		78-125

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-193142/7	UXJ8320.D
Level 2	STD8260 240-193142/6	UXJ8319B.D
Level 3	STD8260 240-193142/5	UXJ8318B.D
Level 4	STD8260 240-193142/4	UXJ8317B.D
Level 5	STD8260 240-193142/3	UXJ8316B.D
Level 6	STD8260 240-193142/2	UXJ8315B.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2289 0.1905	0.2134	0.2220	0.1980	0.1940	Ave		0.2078			0.1000	7.7		15.0			
Chloromethane	0.3210 0.2514	0.3404	0.3244	0.3021	0.2811	Ave		0.3034			0.1000	10.8		15.0			
Vinyl chloride	0.3452 0.2472	0.3311	0.3173	0.2993	0.2695	Ave		0.3016			0.1000	12.4		15.0			
Butadiene	0.3163 0.2609	0.3078	0.3197	0.2951	0.2826	Ave		0.2971				7.6		15.0			
Bromomethane	0.1769 0.1624	0.1998	0.1854	0.1763	0.1701	Ave		0.1785			0.0500	7.3		15.0			
Chloroethane	0.1893 0.1700	0.1935	0.1908	0.1799	0.1808	Ave		0.1840				4.8		15.0			
Dichlorofluoromethane	0.4355 0.4049	0.4576	0.4412	0.4347	0.4239	Ave		0.4329				4.1		15.0			
Trichlorofluoromethane	0.4119 0.3700	0.3864	0.3855	0.3676	0.3703	Ave		0.3820			0.1000	4.4		15.0			
Ethyl ether	0.4472 0.3117	0.3990	0.3610	0.3354	0.3147	Ave		0.3615				14.7		15.0			
Acrolein	0.0242 0.0237	0.0238	0.0233	0.0233	0.0238	Ave		0.0237				1.4		15.0			
1,1-Dichloroethene	0.3206 0.2786	0.3039	0.3207	0.3019	0.2877	Ave		0.3022			0.1000	5.6		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1780 0.1598	0.1710	0.1664	0.1618	0.1623	Ave		0.1666			0.0500	4.1		15.0			
Acetone	0.1759 0.0749	0.1250	0.0903	0.0823	0.0844	Lin1	0.2004	0.0741			0.0500				0.9980		0.9900
Iodomethane	0.4264 0.3796	0.4357	0.4310	0.4020	0.4024	Ave		0.4129				5.3		15.0			
Carbon disulfide	0.9020 0.7673	0.8491	0.8169	0.8078	0.7777	Ave		0.8201			0.1000	6.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2339 0.2320	0.2466	0.2339	0.2374	0.2312	Ave		0.2358				2.4		15.0			
Methyl acetate	0.2146 0.1774	0.1974	0.1849	0.1853	0.1777	Ave		0.1896			0.1000	7.5		15.0			
Methylene Chloride	0.7817 0.3051	0.6001	0.4326	0.3583	0.3299	Lin1	0.5426	0.2984			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0127 0.0124	0.0159	0.0153	0.0145	0.0145	Ave		0.0142				9.9		15.0			
Acrylonitrile	0.0913 0.0853	0.0896	0.0865	0.0864	0.0859	Ave		0.0875				2.7		15.0			
Methyl tert-butyl ether	0.8971 0.8895	0.9038	0.8953	0.9003	0.9036	Ave		0.8983			0.1000	0.6		15.0			
trans-1,2-Dichloroethene	0.3354 0.3424	0.3606	0.3503	0.3527	0.3442	Ave		0.3476			0.1000	2.5		15.0			
Hexane	0.0848 0.0771	0.0748	0.0737	0.0751	0.0738	Ave		0.0766				5.5		15.0			
1,1-Dichloroethane	0.6147 0.6181	0.6293	0.6211	0.6154	0.6139	Ave		0.6188			0.1000	0.9		15.0			
Vinyl acetate	0.4062 0.4465	0.3977	0.4149	0.4299	0.4247	Ave		0.4200				4.2		15.0			
cis-1,2-Dichloroethene	0.3598 0.3676	0.3704	0.3645	0.3510	0.3687	Ave		0.3637			0.1000	2.0		15.0			
2-Butanone (MEK)	0.1262 0.1059	0.0889	0.1098	0.1011	0.1027	Ave		0.1058			0.0500	11.6		15.0			
2,2-Dichloropropane	0.3168 0.3372	0.3374	0.3355	0.3316	0.3433	Ave		0.3336				2.7		15.0			
Bromochloromethane	0.1745 0.1673	0.1709	0.1648	0.1620	0.1644	Ave		0.1673				2.8		15.0			
Tetrahydrofuran	0.0751 0.0645	0.0665	0.0628	0.0644	0.0637	Ave		0.0662				6.9		15.0			
Chloroform	0.6241 0.5929	0.6432	0.5863	0.5755	0.5871	Ave		0.6015				4.4		15.0			
1,1,1-Trichloroethane	0.4366 0.4457	0.4647	0.4329	0.4241	0.4549	Ave		0.4431			0.1000	3.4		15.0			
Cyclohexane	0.5217 0.4700	0.4632	0.4479	0.4403	0.4657	Ave		0.4681			0.1000	6.1		15.0			
1,1-Dichloropropene	0.4463 0.4536	0.4442	0.4382	0.4181	0.4524	Ave		0.4421				2.9		15.0			
Carbon tetrachloride	0.3206 0.3671	0.3469	0.3161	0.3238	0.3626	Ave		0.3395			0.1000	6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0102 0.0095	0.0095	0.0087	0.0095	0.0098	Ave		0.0095				5.1		15.0			
Benzene	1.4632 1.4730	1.4970	1.3954	1.4010	1.4860	Ave		1.4526			0.5000	3.0		15.0			
1,2-Dichloroethane	0.4774 0.4602	0.4968	0.4491	0.4433	0.4615	Ave		0.4647			0.1000	4.2		15.0			
n-Heptane	0.0896 0.0711	0.0640	0.0686	0.0666	0.0693	Ave		0.0715				12.8		15.0			
Trichloroethene	0.3761 0.3488	0.3702	0.3547	0.3400	0.3583	Ave		0.3580			0.2000	3.7		15.0			
Methylcyclohexane	0.4876 0.4394	0.3984	0.4242	0.3956	0.4282	Ave		0.4289			0.1000	7.8		15.0			
1,2-Dichloropropane	0.3383 0.3424	0.3443	0.3289	0.3265	0.3481	Ave		0.3381			0.1000	2.6		15.0			
Dibromomethane	0.1713 0.1727	0.1699	0.1701	0.1652	0.1803	Ave		0.1716				2.9		15.0			
1,4-Dioxane	0.0012 +++++	0.0012	0.0021	0.0019	0.0020	Lin1	-0.021	0.0021							0.9930		0.9900
Bromodichloromethane	0.3619 0.4355	0.3992	0.3872	0.3789	0.4284	Ave		0.3985			0.1000	7.2		15.0			
2-Chloroethyl vinyl ether	0.1874 0.1937	0.1806	0.1774	0.1763	0.1961	Ave		0.1852				4.5		15.0			
cis-1,3-Dichloropropene	0.4372 0.5251	0.4665	0.4538	0.4748	0.5191	Ave		0.4794			0.1500	7.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.2223 0.2382	0.2244	0.2167	0.2210	0.2422	Ave		0.2275			0.0500	4.5		15.0			
Toluene	2.5693 2.6494	2.6772	2.5867	2.5706	2.6848	Ave		2.6230			0.4000	2.0		15.0			
trans-1,3-Dichloropropene	0.5915 0.7575	0.6877	0.6662	0.6977	0.7643	Ave		0.6942			0.1000	9.2		15.0			
Ethyl methacrylate	0.5564 0.6714	0.5977	0.6193	0.6239	0.6949	Ave		0.6273				8.0		15.0			
1,1,2-Trichloroethane	0.4326 0.4311	0.4420	0.4372	0.4311	0.4569	Ave		0.4385			0.1000	2.3		15.0			
Tetrachloroethene	0.4326 0.4407	0.4480	0.4492	0.4251	0.4522	Ave		0.4413			0.2000	2.4		15.0			
1,3-Dichloropropane	0.8100 0.8054	0.7900	0.8109	0.7888	0.8346	Ave		0.8066				2.1		15.0			
2-Hexanone	0.2733 0.2873	0.2715	0.2794	0.2713	0.2939	Ave		0.2795			0.0500	3.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.3607 0.4513	0.3890	0.4093	0.4048	0.4590	Ave		0.4124				9.1		15.0			
1,2-Dibromoethane	0.3835 0.3958	0.3737	0.3905	0.3750	0.4068	Ave		0.3875				3.3		15.0			
Chlorobenzene	1.2333 1.3197	1.3558	1.3168	1.2769	1.3540	Ave		1.3094			0.3000	3.6		15.0			
1,1,1,2-Tetrachloroethane	0.3535 0.4149	0.4055	0.3956	0.3982	0.4197	Ave		0.3979				5.9		15.0			
Ethylbenzene	0.6849 0.7212	0.7403	0.7061	0.6883	0.7411	Ave		0.7136				3.5		15.0			
m-Xylene & p-Xylene	0.8141 0.8528	0.8256	0.8427	0.8245	0.8961	Ave		0.8426				3.5		15.0			
o-Xylene	0.7046 0.7640	0.7730	0.7219	0.7271	0.7984	Ave		0.7482				4.8		15.0			
Styrene	1.1902 1.3943	1.2341	1.2923	1.2841	1.4338	Ave		1.3048			0.3000	7.1		15.0			
Bromoform	0.1681 0.2164	0.1795	0.1775	0.1884	0.2118	Ave		0.1903			0.1000	10.3		15.0			
Isopropylbenzene	1.6207 1.8033	1.7196	1.7320	1.6707	1.8585	Ave		1.7341			0.1000	5.0		15.0			
1,1,2,2-Tetrachloroethane	0.9121 0.8033	0.9364	0.9002	0.8845	0.8619	Ave		0.8831			0.3000	5.3		15.0			
Bromobenzene	1.1746 1.0244	1.2251	1.1340	1.0962	1.0846	Ave		1.1232				6.3		15.0			
1,2,3-Trichloropropane	0.3323 0.2763	0.3172	0.3018	0.3043	0.2874	Ave		0.3032				6.6		15.0			
trans-1,4-Dichloro-2-butene	0.2718 0.2710	0.2602	0.2745	0.2699	0.2730	Ave		0.2701				1.9		15.0			
N-Propylbenzene	1.2643 1.0385	1.0948	1.1261	1.1021	1.1146	Ave		1.1234				6.7		15.0			
2-Chlorotoluene	1.0145 0.8743	1.0148	1.0001	0.9358	0.9452	Ave		0.9641				5.8		15.0			
1,3,5-Trimethylbenzene	2.8913 2.9862	3.1978	3.0812	2.9786	3.1040	Ave		3.0399				3.6		15.0			
4-Chlorotoluene	1.0570 0.9439	1.0488	1.0323	0.9918	1.0107	Ave		1.0141				4.1		15.0			
tert-Butylbenzene	2.5067 2.3806	2.6145	2.4847	2.4554	2.5224	Ave		2.4941				3.1		15.0			
1,2,4-Trimethylbenzene	3.1766 3.1122	3.2789	3.1485	3.1829	3.2277	Ave		3.1878				1.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.5142 3.3065	3.5221	3.4622	3.3843	3.4110	Ave		3.4334				2.4		15.0			
1,3-Dichlorobenzene	1.9826 1.8259	2.0145	1.9348	1.8572	1.8689	Ave		1.9140			0.6000	3.9		15.0			
p-Isopropyltoluene	2.8801 3.0360	2.8433	2.9700	2.9327	3.0401	Ave		2.9504				2.7		15.0			
1,4-Dichlorobenzene	2.0215 1.8787	2.0166	1.9869	1.9186	1.9545	Ave		1.9628			0.5000	2.9		15.0			
n-Butylbenzene	2.4402 2.6109	2.4775	2.5462	2.4904	2.5602	Ave		2.5209				2.5		15.0			
1,2-Dichlorobenzene	2.0331 1.7994	2.0389	1.9004	1.8262	1.8181	Ave		1.9027			0.4000	5.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1472 0.1476	0.1466	0.1510	0.1508	0.1505	Ave		0.1490			0.0500	1.3		15.0			
1,2,4-Trichlorobenzene	1.2834 1.0439	1.2994	1.1961	1.1768	1.0511	Ave		1.1751			0.2000	9.3		15.0			
Hexachlorobutadiene	0.5790 0.4059	0.5163	0.5276	0.4763	0.4091	Ave		0.4857				14.2		15.0			
Naphthalene	2.9081 2.3957	2.8989	2.7935	2.7660	2.5403	Ave		2.7171				7.6		15.0			
1,2,3-Trichlorobenzene	1.1196 0.8884	1.2374	1.1303	1.0690	0.9491	Ave		1.0657				12.0		15.0			
Dibromofluoromethane (Surr)	0.2695 0.2867	0.2789	0.2814	0.2698	0.2931	Ave		0.2799				3.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3411 0.3856	0.3565	0.3644	0.3688	0.3882	Ave		0.3674				4.8		15.0			
Toluene-d8 (Surr)	1.9310 2.1561	2.0364	2.0182	2.0594	2.1619	Ave		2.0605				4.3		15.0			
4-Bromofluorobenzene (Surr)	0.4667 0.4991	0.4576	0.4852	0.4672	0.5187	Ave		0.4824				4.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-193142/7	UXJ8320.D
Level 2	STD8260 240-193142/6	UXJ8319B.D
Level 3	STD8260 240-193142/5	UXJ8318B.D
Level 4	STD8260 240-193142/4	UXJ8317B.D
Level 5	STD8260 240-193142/3	UXJ8316B.D
Level 6	STD8260 240-193142/2	UXJ8315B.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	29799 1243639	54957	149236	293663	611482	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	41784 1641078	87664	218054	448046	886020	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	44930 1613818	85273	213302	443958	849399	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	41176 1702833	79259	214921	437757	890695	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	23033 1059946	51451	124604	261487	536257	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	24641 1109827	49830	128235	266871	569815	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	56685 2643284	117842	296563	644701	1336114	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	53616 2415495	99512	259125	545218	1167303	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	58217 2034356	102742	242656	497438	992027	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	15764 773478	30608	78264	173147	375575	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	41732 1818679	78259	215596	447740	906948	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	23177 1043167	44036	111832	239964	511666	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Lin1	45794 978066	64360	121433	244058	532063	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	55506 2478012	112202	289738	596269	1268487	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	117411 5008672	218669	549152	1198190	2451481	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	30449 1514610	63493	157259	352156	728777	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	139661 5788719	254242	621350	1374267	2801415	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	101756 1991459	154533	290806	531452	1039845	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butyl alcohol (TBA)	FB	Ave	16574 806445	40998	102629	215041	456198	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	118789 5570338	230621	581277	1281721	2709068	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	116782 5806489	232739	601819	1335294	2848297	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	43664 2234951	92856	235515	523085	1084970	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	11044 503599	19269	49562	111432	232703	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	80022 4034476	162059	417556	912729	1935130	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	52877 2914798	102411	278939	637666	1338662	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	46837 2399713	95396	245044	520664	1162271	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	32859 1382879	45763	147606	299762	647299	2.00 80.0	4.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	41241 2201004	86881	225507	491776	1082195	1.00 40.0	2.00	5.00	10.0	20.0
Bromochloromethane	FB	Ave	22710 1092018	44024	110810	240259	518105	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	19563 841569	34252	84442	191184	401333	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	81246 3870182	165630	394159	853554	1850565	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	56831 2909509	119669	291025	629065	1433811	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	67909 3068284	119281	301108	652988	1467850	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	58093 2960893	114390	294604	620204	1426007	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	41738 2396090	89324	212503	480306	1142857	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBZ	Ave	19139 875320	34448	80098	190336	435781	25.0 1000	50.0	125	250	500
Benzene	FB	Ave	190466 9615237	385505	938017	2077985	4684039	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	62149 3004112	127932	301925	657492	1454779	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	11660 464204	16481	46127	98769	218302	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	48958 2277127	95336	238442	504263	1129574	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	63475 2868414	102589	285143	586735	1349868	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	44038 2235357	88666	221127	484231	1097173	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	22302 1127366	43742	114355	245012	568376	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Lin1	3123 +++++	6014	28121	55139	127373	20.0 +++++	40.0	100	200	400
Bromodichloromethane	FB	Ave	47110 2842955	102796	260257	561943	1350357	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	48776 2528677	93043	238506	523103	1236009	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	56910 3427883	120126	305073	704167	1636323	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	57866 3109454	115558	291344	655704	1527044	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBZ	Ave	192468 9811059	388144	950045	2063130	4785521	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Ave	44313 2805026	99697	244683	559968	1362356	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBZ	Ave	41683 2486071	86660	227466	500767	1238530	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	32405 1596338	64075	160558	345978	814481	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBZ	Ave	32405 1632043	64944	164976	341220	805956	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	60677 2982268	114532	297820	633116	1487558	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBZ	Ave	40946 2127842	78738	205215	435538	1047569	2.00 80.0	4.00	10.0	20.0	40.0
Dibromochloromethane	CBZ	Ave	27018 1671270	56399	150343	324902	818090	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	28726 1465628	54174	143408	300967	725100	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBZ	Ave	92388 4886794	196568	483622	1024846	2413362	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	26482 1536533	58786	145300	319560	748131	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBZ	Ave	51306 2670679	107331	259321	552398	1321032	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	60988 3157974	119694	309487	661720	1597252	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBZ	Ave	52780 2829206	112069	265142	583585	1423018	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBZ	Ave	89160 5163118	178918	474617	1030637	2555606	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBZ	Ave	12592 801272	26017	65201	151179	377478	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBZ	Ave	121409 6677707	249310	636119	1340900	3312578	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	24222 1302202	50681	127776	269834	654557	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCB	Ave	31192 1660653	66306	160959	334392	823711	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	8825 447921	17168	42844	92835	218238	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	7218 439259	14084	38965	82343	207319	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCB	Ave	33574 1683372	59250	159843	336192	846502	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCB	Ave	26940 1417246	54920	141960	285480	717862	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCB	Ave	76779 4840673	173067	437347	908634	2357390	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCB	Ave	28068 1530016	56763	146517	302547	767564	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCB	Ave	66566 3859025	141498	352669	749044	1915683	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCB	Ave	84353 5044936	177455	446897	970965	2451335	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCB	Ave	93318 5359893	190621	491417	1032397	2590483	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	52647 2959830	109028	274627	566540	1419349	1.00 40.0	2.00	5.00	10.0	20.0
p-Isopropyltoluene	DCB	Ave	76480 4921371	153881	421561	894656	2308850	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	53682 3045465	109141	282018	585285	1484353	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	64799 4232367	134084	361404	759724	1944355	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	53989 2916946	110350	269736	557089	1380755	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	3909 239331	7934	21427	46000	114305	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	34080 1692123	70326	169774	358980	798263	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCB	Ave	15374 658027	27940	74894	145289	310663	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCB	Ave	77223 3883476	156894	396512	843778	1929274	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Ave	29732 1440164	66972	160434	326106	720793	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	35086 1871531	71814	189187	400130	923780	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	44397 2517292	91816	244984	546941	1223660	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	144655 7984174	295242	741236	1652851	3853468	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	34960 1848260	66337	178221	374984	924611	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-193142/13	UXJ8327.D
Level 2	STD2 240-193142/12	UXJ8326.D
Level 3	STD3 240-193142/11	UXJ8325.D
Level 4	STD4 240-193142/10	UXJ8324.D
Level 5	STD5 240-193142/9	UXJ8323.D
Level 6	STD6 240-193142/8	UXJ8322.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0209 0.0217	0.0208	0.0210	0.0211	0.0220	Ave		0.0212				2.3		15.0			
Diisopropyl ether	0.3447 0.2829	0.2897	0.3000	0.2872	0.2970	Ave		0.3002				7.6		15.0			
2-Chloro-1,3-butadiene	0.5274 0.4823	0.4801	0.5008	0.4655	0.4939	Ave		0.4917				4.3		15.0			
Ethyl t-butyl ether	1.0570 0.9252	0.9340	0.9693	0.9103	0.9479	Ave		0.9573				5.5		15.0			
Ethyl acetate	0.2599 0.2152	0.2271	0.2194	0.2083	0.2203	Ave		0.2250				8.1		15.0			
Propionitrile	0.0278 0.0277	0.0271	0.0282	0.0269	0.0282	Ave		0.0276				1.9		15.0			
Methacrylonitrile	0.1728 0.1724	0.1584	0.1629	0.1597	0.1687	Ave		0.1658				3.8		15.0			
Tert-amyl methyl ether	0.8769 0.8788	0.8278	0.8405	0.8247	0.8779	Ave		0.8544				3.1		15.0			
n-Butanol	0.0050 0.0062	0.0045	0.0057	0.0057	0.0058	Ave		0.0055				10.8		15.0			
Ethyl acrylate	0.3224 0.3362	0.2892	0.3143	0.3157	0.3275	Ave		0.3175				5.1		15.0			
Methyl methacrylate	0.2466 0.2585	0.2262	0.2500	0.2420	0.2537	Ave		0.2462				4.6		15.0			
2-Nitropropane	0.0484 0.0518	0.0426	0.0465	0.0414	0.0506	Ave		0.0469				9.0		15.0			
n-Butyl acetate	0.3592 0.3479	0.3073	0.3278	0.3287	0.3434	Ave		0.3357				5.5		15.0			
1-Chlorohexane	0.6277 0.5755	0.4943	0.5469	0.5354	0.5618	Ave		0.5569				8.0		15.0			
Cyclohexanone	0.0210 0.0182	0.0194	0.0203	0.0190	0.0212	Ave		0.0199				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	3.0422 3.3995	2.9396	3.1023	3.0106	3.2448	Ave		3.1232				5.4		15.0			
1,3,5-Trichlorobenzene	1.3758 1.2100	1.1737	1.2267	1.2079	1.2350	Ave		1.2382				5.7		15.0			
2-Methylnaphthalene	1.4575 1.0069	1.5181	1.3699	1.4396	1.4972	Ave		1.3816				13.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-193142/13	UXJ8327.D
Level 2	STD2 240-193142/12	UXJ8326.D
Level 3	STD3 240-193142/11	UXJ8325.D
Level 4	STD4 240-193142/10	UXJ8324.D
Level 5	STD5 240-193142/9	UXJ8323.D
Level 6	STD6 240-193142/8	UXJ8322.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	25642 1217289	54335	136752	285978	619895	10.0 400	20.0	50.0	100	200
Diisopropyl ether	FB	Ave	42210 1589202	75822	195365	388912	836908	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	64578 2709648	125676	326169	630411	1391740	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl t-butyl ether	FB	Ave	129416 5198455	244499	631290	1232806	2670906	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl acetate	FB	Ave	63652 2418278	118898	285752	564242	1241338	2.00 80.0	4.00	10.0	20.0	40.0
Propionitrile	FB	Ave	34081 1556091	70971	183367	364123	793873	10.0 400	20.0	50.0	100	200
Methacrylonitrile	FB	Ave	211522 9684282	414752	1060842	2163412	4754840	10.0 400	20.0	50.0	100	200
Tert-amyl methyl ether	FB	Ave	107364 4937549	216683	547397	1116946	2473795	1.00 40.0	2.00	5.00	10.0	20.0
n-Butanol	CBZ	Ave	8942 468599	16664	53905	107098	230655	25.0 1000	50.0	125	250	500
Ethyl acrylate	FB	Ave	39469 1888896	75703	204694	427574	922709	1.00 40.0	2.00	5.00	10.0	20.0
Methyl methacrylate	FB	Ave	60391 2904644	118430	325615	655572	1429919	2.00 80.0	4.00	10.0	20.0	40.0
2-Nitropropane	FB	Ave	11842 582077	22285	60606	112092	284925	2.00 80.0	4.00	10.0	20.0	40.0
n-Butyl acetate	FB	Ave	43984 1954615	80453	213470	445191	967715	1.00 40.0	2.00	5.00	10.0	20.0
1-Chlorohexane	CBZ	Ave	44528 1743574	72561	205958	403120	896931	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexanone	DCB	Ave	5549 209396	10698	28055	53630	119032	10.0 400	20.0	50.0	100	200
1,2,3-Trimethylbenzene	DCB	Ave	80400 3913546	161949	428704	847599	1824702	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,3,5-Trichlorobenzene	DCB	Ave	36360 1393016	64664	169515	340059	694511	1.00 40.0	2.00	5.00	10.0	20.0
2-Methylnaphthalene	DCB	Ave	77038 2318405	167275	378618	810604	1683901	2.00 80.0	4.00	10.0	20.0	40.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-193142/14 Calibration Date: 08/13/2015 14:37

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8321.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2078	0.2322	0.1000	0.0112	0.0100	11.8	20.0
Chloromethane	Ave	0.3034	0.3211	0.1000	0.0106	0.0100	5.8	20.0
Vinyl chloride	Ave	0.3016	0.2966	0.1000	0.00983	0.0100	-1.7	20.0
Butadiene	Ave	0.2971	0.2904		0.00978	0.0100	-2.2	20.0
Bromomethane	Ave	0.1785	0.1744	0.0500	0.00977	0.0100	-2.3	20.0
Chloroethane	Ave	0.1840	0.1809	0.0500	0.00983	0.0100	-1.7	20.0
Dichlorofluoromethane	Ave	0.4329	0.4260		0.00984	0.0100	-1.6	20.0
Trichlorofluoromethane	Ave	0.3820	0.3802	0.1000	0.00995	0.0100	-0.5	20.0
Ethyl ether	Ave	0.3615	0.3479		0.00963	0.0100	-3.7	20.0
Acrolein	Ave	0.0237	0.0311		0.0657	0.0500	31.4*	20.0
1,1-Dichloroethene	Ave	0.3022	0.2859	0.1000	0.00946	0.0100	-5.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1666	0.1528	0.0500	0.00918	0.0100	-8.2	20.0
Acetone	Lin1		0.0760	0.0500	0.0178	0.0200	-11.0	20.0
Iodomethane	Ave	0.4129	0.4268		0.0103	0.0100	3.4	20.0
Carbon disulfide	Ave	0.8201	0.8664	0.1000	0.0106	0.0100	5.6	20.0
3-Chloro-1-propene	Ave	0.2358	0.2309		0.00979	0.0100	-2.1	20.0
Methyl acetate	Ave	0.1896	0.1853	0.1000	0.0489	0.0500	-2.3	20.0
Methylene Chloride	Lin1		0.3464	0.1000	0.00979	0.0100	-2.1	20.0
tert-Butyl alcohol (TBA)	Ave	0.0142	0.0115		0.0807	0.100	-19.3	20.0
Acrylonitrile	Ave	0.0875	0.0870		0.0994	0.100	-0.6	20.0
Methyl tert-butyl ether	Ave	0.8983	0.9022	0.1000	0.0100	0.0100	0.4	20.0
trans-1,2-Dichloroethene	Ave	0.3476	0.3675	0.1000	0.0106	0.0100	5.7	20.0
Hexane	Ave	0.0766	0.0821		0.0107	0.0100	7.2	20.0
1,1-Dichloroethane	Ave	0.6188	0.6473	0.1000	0.0105	0.0100	4.6	20.0
Vinyl acetate	Ave	0.4200	0.3511		0.00836	0.0100	-16.4	20.0
cis-1,2-Dichloroethene	Ave	0.3637	0.3670	0.1000	0.0101	0.0100	0.9	20.0
2,2-Dichloropropane	Ave	0.3336	0.3221		0.00965	0.0100	-3.5	20.0
2-Butanone (MEK)	Ave	0.1058	0.1048	0.0500	0.0198	0.0200	-0.9	20.0
Bromochloromethane	Ave	0.1673	0.1647		0.00984	0.0100	-1.6	20.0
Tetrahydrofuran	Ave	0.0662	0.0647		0.0195	0.0200	-2.3	20.0
Chloroform	Ave	0.6015	0.5867	0.2000	0.00975	0.0100	-2.5	20.0
1,1,1-Trichloroethane	Ave	0.4431	0.4518	0.1000	0.0102	0.0100	2.0	20.0
Cyclohexane	Ave	0.4681	0.4665	0.1000	0.00996	0.0100	-0.4	20.0
1,1-Dichloropropene	Ave	0.4421	0.4839		0.0109	0.0100	9.4	20.0
Carbon tetrachloride	Ave	0.3395	0.3447	0.1000	0.0102	0.0100	1.5	20.0
Isobutyl alcohol	Ave	0.0095	0.0088		0.230	0.250	-8.0	20.0
1,2-Dichloroethane	Ave	0.4647	0.4615	0.1000	0.00993	0.0100	-0.7	20.0
Benzene	Ave	1.453	1.452	0.5000	0.0100	0.0100	-0.0	20.0
n-Heptane	Ave	0.0715	0.0696		0.00974	0.0100	-2.6	20.0
Trichloroethene	Ave	0.3580	0.3589	0.2000	0.0100	0.0100	0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-193142/14 Calibration Date: 08/13/2015 14:37

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8321.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4289	0.4003	0.1000	0.00933	0.0100	-6.7	20.0
1,2-Dichloropropane	Ave	0.3381	0.3274	0.1000	0.00968	0.0100	-3.2	20.0
Dibromomethane	Ave	0.1716	0.1695		0.00988	0.0100	-1.2	20.0
1,4-Dioxane	Lin1		0.0014		0.150	0.200	-25.2*	20.0
Bromodichloromethane	Ave	0.3985	0.3873	0.1000	0.00972	0.0100	-2.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1852	0.1867		0.0101	0.0100	0.8	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.4920	0.1500	0.0103	0.0100	2.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2275	0.2229	0.0500	0.0196	0.0200	-2.0	20.0
Toluene	Ave	2.623	2.679	0.4000	0.0102	0.0100	2.1	20.0
trans-1,3-Dichloropropene	Ave	0.6942	0.7623	0.1000	0.0110	0.0100	9.8	20.0
Ethyl methacrylate	Ave	0.6273	0.6557		0.0105	0.0100	4.5	20.0
1,1,2-Trichloroethane	Ave	0.4385	0.4388	0.1000	0.0100	0.0100	0.0	20.0
Tetrachloroethene	Ave	0.4413	0.4324	0.2000	0.00980	0.0100	-2.0	20.0
1,3-Dichloropropane	Ave	0.8066	0.7973		0.00988	0.0100	-1.2	20.0
2-Hexanone	Ave	0.2795	0.2770	0.0500	0.0198	0.0200	-0.9	20.0
Dibromochloromethane	Ave	0.4124	0.4121		0.00999	0.0100	-0.0	20.0
1,2-Dibromoethane	Ave	0.3875	0.3954		0.0102	0.0100	2.0	20.0
Chlorobenzene	Ave	1.309	1.323	0.3000	0.0101	0.0100	1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3979	0.4045		0.0102	0.0100	1.7	20.0
Ethylbenzene	Ave	0.7136	0.7094		0.00994	0.0100	-0.6	20.0
m-Xylene & p-Xylene	Ave	0.8426	0.8268		0.00981	0.0100	-1.9	20.0
o-Xylene	Ave	0.7482	0.7421		0.00992	0.0100	-0.8	20.0
Styrene	Ave	1.305	1.226	0.3000	0.00939	0.0100	-6.1	20.0
Bromoform	Ave	0.1903	0.1736	0.1000	0.00913	0.0100	-8.7	20.0
Isopropylbenzene	Ave	1.734	1.722	0.1000	0.00993	0.0100	-0.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8831	0.8787	0.3000	0.00995	0.0100	-0.5	20.0
Bromobenzene	Ave	1.123	1.125		0.0100	0.0100	0.1	20.0
1,2,3-Trichloropropane	Ave	0.3032	0.3049		0.0101	0.0100	0.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2701	0.2617		0.00969	0.0100	-3.1	20.0
N-Propylbenzene	Ave	1.123	1.055		0.00939	0.0100	-6.1	20.0
2-Chlorotoluene	Ave	0.9641	0.9229		0.00957	0.0100	-4.3	20.0
1,3,5-Trimethylbenzene	Ave	3.040	2.959		0.00973	0.0100	-2.7	20.0
4-Chlorotoluene	Ave	1.014	0.9931		0.00979	0.0100	-2.1	20.0
tert-Butylbenzene	Ave	2.494	2.405		0.00964	0.0100	-3.6	20.0
1,2,4-Trimethylbenzene	Ave	3.188	3.143		0.00986	0.0100	-1.4	20.0
sec-Butylbenzene	Ave	3.433	3.321		0.00967	0.0100	-3.3	20.0
1,3-Dichlorobenzene	Ave	1.914	1.818	0.6000	0.00950	0.0100	-5.0	20.0
p-Isopropyltoluene	Ave	2.950	2.832		0.00960	0.0100	-4.0	20.0
1,4-Dichlorobenzene	Ave	1.963	1.918	0.5000	0.00977	0.0100	-2.3	20.0
n-Butylbenzene	Ave	2.521	2.317		0.00919	0.0100	-8.1	20.0
1,2-Dichlorobenzene	Ave	1.903	1.831	0.4000	0.00962	0.0100	-3.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-193142/14 Calibration Date: 08/13/2015 14:37

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8321.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1490	0.1537	0.0500	0.0103	0.0100	3.2	20.0
1,2,4-Trichlorobenzene	Ave	1.175	1.094	0.2000	0.00931	0.0100	-6.9	20.0
Hexachlorobutadiene	Ave	0.4857	0.4211		0.00867	0.0100	-13.3	20.0
Naphthalene	Ave	2.717	2.596		0.00955	0.0100	-4.5	20.0
1,2,3-Trichlorobenzene	Ave	1.066	0.9707		0.00911	0.0100	-8.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2799	0.2958		0.00785	0.00743	5.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3674	0.4057		0.00820	0.00743	10.4	20.0
Toluene-d8 (Surr)	Ave	2.061	2.193		0.00790	0.00743	6.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4824	0.5076		0.00781	0.00743	5.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-193142/15 Calibration Date: 08/13/2015 17:16

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 14:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 16:53

Lab File ID: UXJ8328.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0212	0.0243		0.114	0.100	14.4	20.0
Diisopropyl ether	Ave	0.3002	0.3168		0.0106	0.0100	5.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4917	0.5165		0.0105	0.0100	5.0	20.0
Ethyl t-butyl ether	Ave	0.9573	1.006		0.0105	0.0100	5.1	20.0
Ethyl acetate	Ave	0.2250	0.2335		0.0208	0.0200	3.8	20.0
Propionitrile	Ave	0.0276	0.0297		0.107	0.100	7.3	20.0
Methacrylonitrile	Ave	0.1658	0.1773		0.107	0.100	6.9	20.0
Tert-amyl methyl ether	Ave	0.8544	0.8932		0.0105	0.0100	4.5	20.0
n-Butanol	Ave	0.0055	0.0054		0.246	0.250	-1.7	20.0
Methyl methacrylate	Ave	0.2462	0.2632		0.0214	0.0200	6.9	20.0
2-Nitropropane	Ave	0.0469	0.0458		0.0195	0.0200	-2.3	20.0
1-Chlorohexane	Ave	0.5569	0.5448		0.00978	0.0100	-2.2	20.0
Cyclohexanone	Ave	0.0199	0.0184		0.0927	0.100	-7.3	20.0
1,2,3-Trimethylbenzene	Ave	3.123	3.145		0.0101	0.0100	0.7	20.0
1,3,5-Trichlorobenzene	Ave	1.238	1.248		0.0101	0.0100	0.8	20.0
2-Methylnaphthalene	Ave	1.382	0.9584		0.0139	0.0200	-30.6*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2078	0.1777	0.1000	0.00855	0.0100	-14.5	20.0
Chloromethane	Ave	0.3034	0.2838	0.1000	0.00936	0.0100	-6.4	20.0
Vinyl chloride	Ave	0.3016	0.2584	0.1000	0.00857	0.0100	-14.3	20.0
Butadiene	Ave	0.2971	0.2712		0.00913	0.0100	-8.7	20.0
Bromomethane	Ave	0.1785	0.1527	0.0500	0.00856	0.0100	-14.4	20.0
Chloroethane	Ave	0.1840	0.1589	0.0500	0.00864	0.0100	-13.6	20.0
Dichlorofluoromethane	Ave	0.4329	0.3831		0.00885	0.0100	-11.5	20.0
Trichlorofluoromethane	Ave	0.3820	0.3588	0.1000	0.00939	0.0100	-6.1	20.0
Ethyl ether	Ave	0.3615	0.3173		0.00878	0.0100	-12.2	20.0
Acrolein	Ave	0.0237	0.0243		0.0513	0.0500	2.6	20.0
1,1-Dichloroethene	Ave	0.3022	0.2804	0.1000	0.00928	0.0100	-7.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1666	0.1567	0.0500	0.00941	0.0100	-5.9	20.0
Acetone	Lin1		0.1060	0.0500	0.0259	0.0200	29.4*	20.0
Iodomethane	Ave	0.4129	0.4038		0.00978	0.0100	-2.2	20.0
Carbon disulfide	Ave	0.8201	0.8157	0.1000	0.00995	0.0100	-0.5	20.0
3-Chloro-1-propene	Ave	0.2358	0.2476		0.0105	0.0100	5.0	20.0
Methyl acetate	Ave	0.1896	0.1842	0.1000	0.0486	0.0500	-2.8	20.0
Methylene Chloride	Lin1		0.3429	0.1000	0.00967	0.0100	-3.3	20.0
tert-Butyl alcohol (TBA)	Ave	0.0142	0.0121		0.0854	0.100	-14.6	20.0
Acrylonitrile	Ave	0.0875	0.0880		0.101	0.100	0.6	20.0
Methyl tert-butyl ether	Ave	0.8983	0.8720	0.1000	0.00971	0.0100	-2.9	20.0
trans-1,2-Dichloroethene	Ave	0.3476	0.3466	0.1000	0.00997	0.0100	-0.3	20.0
Hexane	Ave	0.0766	0.0814		0.0106	0.0100	6.3	20.0
1,1-Dichloroethane	Ave	0.6188	0.6353	0.1000	0.0103	0.0100	2.7	20.0
Vinyl acetate	Ave	0.4200	0.4372		0.0104	0.0100	4.1	20.0
cis-1,2-Dichloroethene	Ave	0.3637	0.3613	0.1000	0.00993	0.0100	-0.7	20.0
2,2-Dichloropropane	Ave	0.3336	0.3413		0.0102	0.0100	2.3	20.0
2-Butanone (MEK)	Ave	0.1058	0.1133	0.0500	0.0214	0.0200	7.1	20.0
Bromochloromethane	Ave	0.1673	0.1623		0.00970	0.0100	-3.0	20.0
Tetrahydrofuran	Ave	0.0662	0.0921		0.0278	0.0200	39.1*	20.0
Chloroform	Ave	0.6015	0.5814	0.2000	0.00967	0.0100	-3.3	20.0
1,1,1-Trichloroethane	Ave	0.4431	0.4486	0.1000	0.0101	0.0100	1.2	20.0
Cyclohexane	Ave	0.4681	0.4886	0.1000	0.0104	0.0100	4.4	20.0
1,1-Dichloropropene	Ave	0.4421	0.4592		0.0104	0.0100	3.9	20.0
Carbon tetrachloride	Ave	0.3395	0.3983	0.1000	0.0117	0.0100	17.3	20.0
Isobutyl alcohol	Ave	0.0095	0.0083		0.218	0.250	-12.9	20.0
1,2-Dichloroethane	Ave	0.4647	0.4617	0.1000	0.00993	0.0100	-0.7	20.0
Benzene	Ave	1.453	1.475	0.5000	0.0102	0.0100	1.6	20.0
n-Heptane	Ave	0.0715	0.0762		0.0106	0.0100	6.5	20.0
Trichloroethene	Ave	0.3580	0.3640	0.2000	0.0102	0.0100	1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4289	0.4615	0.1000	0.0108	0.0100	7.6	20.0
1,2-Dichloropropane	Ave	0.3381	0.3636	0.1000	0.0108	0.0100	7.5	20.0
1,4-Dioxane	Lin1		0.0017		0.171	0.200	-14.3	20.0
Dibromomethane	Ave	0.1716	0.1728		0.0101	0.0100	0.7	20.0
Bromodichloromethane	Ave	0.3985	0.4223	0.1000	0.0106	0.0100	6.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1852	0.1886		0.0204	0.0200	1.8	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5109	0.1500	0.0107	0.0100	6.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2275	0.2262	0.0500	0.0199	0.0200	-0.6	20.0
Toluene	Ave	2.623	2.617	0.4000	0.00998	0.0100	-0.2	20.0
trans-1,3-Dichloropropene	Ave	0.6942	0.7117	0.1000	0.0103	0.0100	2.5	20.0
Ethyl methacrylate	Ave	0.6273	0.6081		0.00969	0.0100	-3.1	20.0
1,1,2-Trichloroethane	Ave	0.4385	0.4309	0.1000	0.00983	0.0100	-1.7	20.0
Tetrachloroethene	Ave	0.4413	0.4483	0.2000	0.0102	0.0100	1.6	20.0
1,3-Dichloropropane	Ave	0.8066	0.8242		0.0102	0.0100	2.2	20.0
2-Hexanone	Ave	0.2795	0.2638	0.0500	0.0189	0.0200	-5.6	20.0
Dibromochloromethane	Ave	0.4124	0.4406		0.0107	0.0100	6.9	20.0
1,2-Dibromoethane	Ave	0.3875	0.3860		0.00996	0.0100	-0.4	20.0
Chlorobenzene	Ave	1.309	1.337	0.3000	0.0102	0.0100	2.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3979	0.4337		0.0109	0.0100	9.0	20.0
Ethylbenzene	Ave	0.7136	0.7276		0.0102	0.0100	2.0	20.0
m-Xylene & p-Xylene	Ave	0.8426	0.8858		0.0105	0.0100	5.1	20.0
o-Xylene	Ave	0.7482	0.7805		0.0104	0.0100	4.3	20.0
Styrene	Ave	1.305	1.368	0.3000	0.0105	0.0100	4.8	20.0
Bromoform	Ave	0.1903	0.2098	0.1000	0.0110	0.0100	10.2	20.0
Isopropylbenzene	Ave	1.734	1.799	0.1000	0.0104	0.0100	3.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8831	0.9579	0.3000	0.0108	0.0100	8.5	20.0
Bromobenzene	Ave	1.123	1.258		0.0112	0.0100	12.0	20.0
1,2,3-Trichloropropane	Ave	0.3032	0.3126		0.0103	0.0100	3.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2701	0.2705		0.0100	0.0100	0.2	20.0
N-Propylbenzene	Ave	1.123	1.271		0.0113	0.0100	13.1	20.0
2-Chlorotoluene	Ave	0.9641	1.066		0.0111	0.0100	10.5	20.0
1,3,5-Trimethylbenzene	Ave	3.040	3.399		0.0112	0.0100	11.8	20.0
4-Chlorotoluene	Ave	1.014	1.120		0.0110	0.0100	10.5	20.0
tert-Butylbenzene	Ave	2.494	2.666		0.0107	0.0100	6.9	20.0
1,2,4-Trimethylbenzene	Ave	3.188	3.392		0.0106	0.0100	6.4	20.0
sec-Butylbenzene	Ave	3.433	3.575		0.0104	0.0100	4.1	20.0
1,3-Dichlorobenzene	Ave	1.914	1.842	0.6000	0.00962	0.0100	-3.8	20.0
p-Isopropyltoluene	Ave	2.950	3.022		0.0102	0.0100	2.4	20.0
1,4-Dichlorobenzene	Ave	1.963	1.886	0.5000	0.00961	0.0100	-3.9	20.0
n-Butylbenzene	Ave	2.521	2.370		0.00940	0.0100	-6.0	20.0
1,2-Dichlorobenzene	Ave	1.903	1.679	0.4000	0.00882	0.0100	-11.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1490	0.1352	0.0500	0.00908	0.0100	-9.2	20.0
1,2,4-Trichlorobenzene	Ave	1.175	1.006	0.2000	0.00856	0.0100	-14.4	20.0
Hexachlorobutadiene	Ave	0.4857	0.4084		0.00841	0.0100	-15.9	20.0
Naphthalene	Ave	2.717	2.109		0.00776	0.0100	-22.4*	20.0
1,2,3-Trichlorobenzene	Ave	1.066	0.8611		0.00808	0.0100	-19.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2799	0.2807		0.00745	0.00743	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3674	0.3763		0.00760	0.00743	2.4	20.0
Toluene-d8 (Surr)	Ave	2.061	2.075		0.00748	0.00743	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4824	0.4892		0.00753	0.00743	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195083/3 Calibration Date: 08/27/2015 11:11

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 14:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 16:53

Lab File ID: UXJ8730.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0212	0.0221		0.104	0.100	4.2	20.0
Diisopropyl ether	Ave	0.3002	0.2918		0.00972	0.0100	-2.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4917	0.5075		0.0103	0.0100	3.2	20.0
Ethyl t-butyl ether	Ave	0.9573	0.9373		0.00979	0.0100	-2.1	20.0
Ethyl acetate	Ave	0.2250	0.2289		0.0203	0.0200	1.7	20.0
Propionitrile	Ave	0.0276	0.0281		0.102	0.100	1.8	20.0
Methacrylonitrile	Ave	0.1658	0.1745		0.105	0.100	5.2	20.0
Tert-amyl methyl ether	Ave	0.8544	0.8073		0.00945	0.0100	-5.5	20.0
n-Butanol	Ave	0.0055	0.0052		0.235	0.250	-6.1	20.0
Methyl methacrylate	Ave	0.2462	0.2437		0.0198	0.0200	-1.0	20.0
2-Nitropropane	Ave	0.0469	0.0535		0.0228	0.0200	14.2	20.0
1-Chlorohexane	Ave	0.5569	0.5445		0.00978	0.0100	-2.2	20.0
Cyclohexanone	Ave	0.0199	0.0183		0.0921	0.100	-7.9	20.0
1,2,3-Trimethylbenzene	Ave	3.123	3.043		0.00974	0.0100	-2.6	20.0
1,3,5-Trichlorobenzene	Ave	1.238	1.188		0.00959	0.0100	-4.1	20.0
2-Methylnaphthalene	Ave	1.382	0.8783		0.0127	0.0200	-36.4*	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195083/7

Matrix: Water | Lab File ID: UXJ8733.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.94	J	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	9.12	J	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195083/7

Matrix: Water | Lab File ID: UXJ8733.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.45	U	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-195083/7

Matrix: Water Lab File ID: UXJ8733.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 195083 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		79-120
460-00-4	4-Bromofluorobenzene (Surr)	92		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		78-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-195083/4

Matrix: Water | Lab File ID: UXJ8729.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 10:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	10.8		1.0	0.28
71-55-6	1,1,1-Trichloroethane	10.5		1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	11.1		1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.11		1.0	0.45
75-34-3	1,1-Dichloroethane	10.6		1.0	0.30
75-35-4	1,1-Dichloroethene	9.56		1.0	0.45
563-58-6	1,1-Dichloropropene	11.1		1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	9.07		1.0	0.37
96-18-4	1,2,3-Trichloropropane	10.8		1.0	0.44
120-82-1	1,2,4-Trichlorobenzene	9.23		1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	10.5		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	9.32		2.0	0.82
95-50-1	1,2-Dichlorobenzene	9.28		1.0	0.25
107-06-2	1,2-Dichloroethane	9.84		1.0	0.23
78-87-5	1,2-Dichloropropane	10.5		1.0	0.25
541-73-1	1,3-Dichlorobenzene	9.90		1.0	0.19
142-28-9	1,3-Dichloropropane	9.91		1.0	0.19
106-46-7	1,4-Dichlorobenzene	10.1		1.0	0.27
594-20-7	2,2-Dichloropropane	10.5		1.0	0.26
78-93-3	2-Butanone (MEK)	20.4		10	0.53
110-75-8	2-Chloroethyl vinyl ether	9.55	J	10	0.59
95-49-8	2-Chlorotoluene	11.1		1.0	0.40
591-78-6	2-Hexanone	17.4		10	0.48
106-43-4	4-Chlorotoluene	11.2		1.0	0.29
99-87-6	p-Isopropyltoluene	10.1		1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	18.7		10	0.99
67-64-1	Acetone	25.1		10	0.94
71-43-2	Benzene	10.2		1.0	0.35
108-86-1	Bromobenzene	11.4		1.0	0.35
75-25-2	Bromoform	9.81		1.0	0.56
74-83-9	Bromomethane	8.33		1.0	0.44
75-15-0	Carbon disulfide	10.4		1.0	0.38
56-23-5	Carbon tetrachloride	12.0		1.0	0.43
108-90-7	Chlorobenzene	10.3		1.0	0.25
124-48-1	Dibromochloromethane	10.1		1.0	0.43

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-195083/4

Matrix: Water | Lab File ID: UXJ8729.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 10:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	9.08		1.0	0.32
67-66-3	Chloroform	9.77		1.0	0.25
74-87-3	Chloromethane	9.12		1.0	0.44
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	10.2		1.0	0.46
74-95-3	Dibromomethane	9.94		1.0	0.42
74-97-5	Bromochloromethane	9.75		1.0	0.50
75-71-8	Dichlorodifluoromethane	7.29		1.0	0.32
75-27-4	Bromodichloromethane	10.2		1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	95.6		50	4.9
100-41-4	Ethylbenzene	10.1		1.0	0.25
87-68-3	Hexachlorobutadiene	8.56		1.0	0.35
98-82-8	Isopropylbenzene	10.3		1.0	0.35
1634-04-4	Methyl tert-butyl ether	10.0		1.0	0.20
75-09-2	Methylene Chloride	9.62		1.0	0.33
179601-23-1	m-Xylene & p-Xylene	10.1		2.0	0.24
91-20-3	Naphthalene	8.70		1.0	0.45
104-51-8	n-Butylbenzene	9.50		1.0	0.31
103-65-1	N-Propylbenzene	11.2		1.0	0.40
95-47-6	o-Xylene	10.1		1.0	0.25
135-98-8	sec-Butylbenzene	10.1		1.0	0.48
100-42-5	Styrene	9.58		1.0	0.45
127-18-4	Tetrachloroethene	9.72		1.0	0.31
108-88-3	Toluene	9.39		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	10.4		1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	10.3		1.0	0.56
79-01-6	Trichloroethene	9.95		1.0	0.22
75-69-4	Trichlorofluoromethane	9.26		1.0	0.49
108-05-4	Vinyl acetate	8.39		2.0	0.41
75-01-4	Vinyl chloride	8.44		1.0	0.29
1330-20-7	Xylenes, Total	20.2		2.0	0.52
98-06-6	tert-Butylbenzene	10.6		1.0	0.41
106-93-4	1,2-Dibromoethane	9.29		1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-195083/4

Matrix: Water Lab File ID: UXJ8729.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/27/2015 10:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 195083 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		79-120
460-00-4	4-Bromofluorobenzene (Surr)	102		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		78-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 MS | Lab Sample ID: 240-54724-11 MS

Matrix: Water | Lab File ID: UXJ8738.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 14:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	10.7		1.0	0.28
71-55-6	1,1,1-Trichloroethane	10.2		1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	11.2		1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.06		1.0	0.45
75-34-3	1,1-Dichloroethane	11.0		1.0	0.30
75-35-4	1,1-Dichloroethene	9.38		1.0	0.45
563-58-6	1,1-Dichloropropene	11.1		1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	8.44		1.0	0.37
96-18-4	1,2,3-Trichloropropane	11.3		1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	8.96		1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	10.0		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	10.2		2.0	0.82
95-50-1	1,2-Dichlorobenzene	8.81		1.0	0.25
107-06-2	1,2-Dichloroethane	10.1		1.0	0.23
78-87-5	1,2-Dichloropropane	10.5		1.0	0.25
541-73-1	1,3-Dichlorobenzene	9.64		1.0	0.19
142-28-9	1,3-Dichloropropane	10.1		1.0	0.19
106-46-7	1,4-Dichlorobenzene	9.71		1.0	0.27
594-20-7	2,2-Dichloropropane	10.4		1.0	0.26
78-93-3	2-Butanone (MEK)	20.9		10	0.53
110-75-8	2-Chloroethyl vinyl ether	1.28	J	10	0.59
95-49-8	2-Chlorotoluene	11.0		1.0	0.40
591-78-6	2-Hexanone	20.9		10	0.48
106-43-4	4-Chlorotoluene	11.1		1.0	0.29
99-87-6	p-Isopropyltoluene	9.41		1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	23.1		10	0.99
67-64-1	Acetone	25.7		10	0.94
71-43-2	Benzene	10.3		1.0	0.35
108-86-1	Bromobenzene	11.0		1.0	0.35
75-25-2	Bromoform	10.8		1.0	0.56
74-83-9	Bromomethane	7.67		1.0	0.44
75-15-0	Carbon disulfide	10.9		1.0	0.38
56-23-5	Carbon tetrachloride	11.5		1.0	0.43
108-90-7	Chlorobenzene	10.3		1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 MS | Lab Sample ID: 240-54724-11 MS

Matrix: Water | Lab File ID: UXJ8738.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 14:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	10.4		1.0	0.43
75-00-3	Chloroethane	8.02		1.0	0.32
67-66-3	Chloroform	9.91		1.0	0.25
74-87-3	Chloromethane	9.10		1.0	0.44
156-59-2	cis-1,2-Dichloroethene	10.7		1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.46
74-95-3	Dibromomethane	10.0		1.0	0.42
74-97-5	Bromochloromethane	10.3		1.0	0.50
75-71-8	Dichlorodifluoromethane	6.83		1.0	0.32
75-27-4	Bromodichloromethane	10.4		1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	102		50	4.9
100-41-4	Ethylbenzene	10.3		1.0	0.25
87-68-3	Hexachlorobutadiene	7.89		1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	10.5		1.0	0.35
1634-04-4	Methyl tert-butyl ether	10.5		1.0	0.20
75-09-2	Methylene Chloride	9.74		1.0	0.33
179601-23-1	m-Xylene & p-Xylene	10.4		2.0	0.24
91-20-3	Naphthalene	9.87		1.0	0.45
104-51-8	n-Butylbenzene	8.62		1.0	0.31
103-65-1	N-Propylbenzene	10.9		1.0	0.40
95-47-6	o-Xylene	10.8		1.0	0.25
135-98-8	sec-Butylbenzene	9.65		1.0	0.48
100-42-5	Styrene	10.1		1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	10.2		1.0	0.31
108-88-3	Toluene	9.68		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	10.5		1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	10.6		1.0	0.56
79-01-6	Trichloroethene	9.91		1.0	0.22
75-69-4	Trichlorofluoromethane	8.47		1.0	0.49
108-05-4	Vinyl acetate	8.88		2.0	0.41
75-01-4	Vinyl chloride	7.40		1.0	0.29
1330-20-7	Xylenes, Total	21.2		2.0	0.52
98-06-6	tert-Butylbenzene	9.86		1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 MS | Lab Sample ID: 240-54724-11 MS

Matrix: Water | Lab File ID: UXJ8738.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 14:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	9.88		1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		79-120
460-00-4	4-Bromofluorobenzene (Surr)	105		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		78-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 MSD | Lab Sample ID: 240-54724-11 MSD

Matrix: Water | Lab File ID: UXJ8739.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 14:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	10.3		1.0	0.28
71-55-6	1,1,1-Trichloroethane	9.92		1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	11.6		1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.33		1.0	0.45
75-34-3	1,1-Dichloroethane	10.6		1.0	0.30
75-35-4	1,1-Dichloroethene	10.0		1.0	0.45
563-58-6	1,1-Dichloropropene	10.8		1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	8.90		1.0	0.37
96-18-4	1,2,3-Trichloropropane	11.5		1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	8.68		1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	10.1		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	10.1		2.0	0.82
95-50-1	1,2-Dichlorobenzene	9.22		1.0	0.25
107-06-2	1,2-Dichloroethane	9.66		1.0	0.23
78-87-5	1,2-Dichloropropane	10.2		1.0	0.25
541-73-1	1,3-Dichlorobenzene	9.41		1.0	0.19
142-28-9	1,3-Dichloropropane	9.16		1.0	0.19
106-46-7	1,4-Dichlorobenzene	9.62		1.0	0.27
594-20-7	2,2-Dichloropropane	10.2		1.0	0.26
78-93-3	2-Butanone (MEK)	20.1		10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	11.3		1.0	0.40
591-78-6	2-Hexanone	19.2		10	0.48
106-43-4	4-Chlorotoluene	11.3		1.0	0.29
99-87-6	p-Isopropyltoluene	9.47		1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	21.8		10	0.99
67-64-1	Acetone	24.4		10	0.94
71-43-2	Benzene	9.90		1.0	0.35
108-86-1	Bromobenzene	11.3		1.0	0.35
75-25-2	Bromoform	10.4		1.0	0.56
74-83-9	Bromomethane	8.24		1.0	0.44
75-15-0	Carbon disulfide	10.9		1.0	0.38
56-23-5	Carbon tetrachloride	11.4		1.0	0.43
108-90-7	Chlorobenzene	9.82		1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 MSD | Lab Sample ID: 240-54724-11 MSD

Matrix: Water | Lab File ID: UXJ8739.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 14:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	9.76		1.0	0.43
75-00-3	Chloroethane	8.74		1.0	0.32
67-66-3	Chloroform	9.39		1.0	0.25
74-87-3	Chloromethane	10.2		1.0	0.44
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	10.1		1.0	0.46
74-95-3	Dibromomethane	9.98		1.0	0.42
74-97-5	Bromochloromethane	9.74		1.0	0.50
75-71-8	Dichlorodifluoromethane	7.29		1.0	0.32
75-27-4	Bromodichloromethane	10.0		1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	99.3		50	4.9
100-41-4	Ethylbenzene	10.1		1.0	0.25
87-68-3	Hexachlorobutadiene	7.51		1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	10.4		1.0	0.35
1634-04-4	Methyl tert-butyl ether	10.0		1.0	0.20
75-09-2	Methylene Chloride	9.38		1.0	0.33
179601-23-1	m-Xylene & p-Xylene	10.0		2.0	0.24
91-20-3	Naphthalene	10.3		1.0	0.45
104-51-8	n-Butylbenzene	8.91		1.0	0.31
103-65-1	N-Propylbenzene	11.5		1.0	0.40
95-47-6	o-Xylene	10.3		1.0	0.25
135-98-8	sec-Butylbenzene	10.0		1.0	0.48
100-42-5	Styrene	9.83		1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	9.45		1.0	0.31
108-88-3	Toluene	9.03		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	10.5		1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	9.73		1.0	0.56
79-01-6	Trichloroethene	9.69		1.0	0.22
75-69-4	Trichlorofluoromethane	9.23		1.0	0.49
108-05-4	Vinyl acetate	8.66		2.0	0.41
75-01-4	Vinyl chloride	8.10		1.0	0.29
1330-20-7	Xylenes, Total	20.3		2.0	0.52
98-06-6	tert-Butylbenzene	10.5		1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 MSD | Lab Sample ID: 240-54724-11 MSD

Matrix: Water | Lab File ID: UXJ8739.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 14:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	9.42		1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		79-120
460-00-4	4-Bromofluorobenzene (Surr)	104		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		78-125

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A3UX11 Start Date: 08/13/2015 10:51

Analysis Batch Number: 193142 End Date: 08/13/2015 21:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-193142/1		08/13/2015 10:51	1	BFB813A.D	DB-624 0.18(mm)
STD8260 240-193142/2 IC		08/13/2015 12:22	1	UXJ8315B.D	DB-624 0.18(mm)
STD8260 240-193142/3 IC		08/13/2015 12:45	1	UXJ8316B.D	DB-624 0.18(mm)
STD8260 240-193142/4 ICIS		08/13/2015 13:07	1	UXJ8317B.D	DB-624 0.18(mm)
STD8260 240-193142/5 IC		08/13/2015 13:30	1	UXJ8318B.D	DB-624 0.18(mm)
STD8260 240-193142/6 IC		08/13/2015 13:52	1	UXJ8319B.D	DB-624 0.18(mm)
STD8260 240-193142/7 IC		08/13/2015 14:14	1	UXJ8320.D	DB-624 0.18(mm)
ICV 240-193142/14		08/13/2015 14:37	1	UXJ8321.D	DB-624 0.18(mm)
STD6 240-193142/8 IC		08/13/2015 14:59	1	UXJ8322.D	DB-624 0.18(mm)
STD5 240-193142/9 IC		08/13/2015 15:22	1	UXJ8323.D	DB-624 0.18(mm)
STD4 240-193142/10 IC		08/13/2015 15:45	1	UXJ8324.D	DB-624 0.18(mm)
STD3 240-193142/11 IC		08/13/2015 16:08	1	UXJ8325.D	DB-624 0.18(mm)
STD2 240-193142/12 IC		08/13/2015 16:30	1	UXJ8326.D	DB-624 0.18(mm)
STD1 240-193142/13 IC		08/13/2015 16:53	1	UXJ8327.D	DB-624 0.18(mm)
ICV 240-193142/15		08/13/2015 17:16	1	UXJ8328.D	DB-624 0.18(mm)
ZZZZZ		08/13/2015 17:39	1		DB-624 0.18(mm)
ZZZZZ		08/13/2015 18:24	1		DB-624 0.18(mm)
ZZZZZ		08/13/2015 18:47	2		DB-624 0.18(mm)
ZZZZZ		08/13/2015 19:09	5		DB-624 0.18(mm)
ZZZZZ		08/13/2015 19:32	1		DB-624 0.18(mm)
ZZZZZ		08/13/2015 19:55	2		DB-624 0.18(mm)
ZZZZZ		08/13/2015 20:18	1		DB-624 0.18(mm)
ZZZZZ		08/13/2015 20:40	1		DB-624 0.18(mm)
ZZZZZ		08/13/2015 21:03	5		DB-624 0.18(mm)
ZZZZZ		08/13/2015 21:24	5		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A3UX11 Start Date: 08/27/2015 09:56

Analysis Batch Number: 195083 End Date: 08/27/2015 14:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-195083/1		08/27/2015 09:56	1	BFB827.D	DB-624 0.18(mm)
CCVIS 240-195083/2		08/27/2015 10:26	1	UXJ8728.D	DB-624 0.18(mm)
LCS 240-195083/4		08/27/2015 10:48	1	UXJ8729.D	DB-624 0.18(mm)
CCV 240-195083/3		08/27/2015 11:11	1	UXJ8730.D	DB-624 0.18(mm)
ZZZZZ		08/27/2015 11:56	1		DB-624 0.18(mm)
MB 240-195083/7		08/27/2015 12:18	1	UXJ8733.D	DB-624 0.18(mm)
240-54724-12	TB-082515	08/27/2015 12:41	1	UXJ8734.D	DB-624 0.18(mm)
240-54724-11	WC-DFRAC-082515	08/27/2015 13:04	1	UXJ8735.D	DB-624 0.18(mm)
ZZZZZ		08/27/2015 13:26	1		DB-624 0.18(mm)
ZZZZZ		08/27/2015 13:49	14.29		DB-624 0.18(mm)
240-54724-11 MS	WC-DFRAC-082515 MS	08/27/2015 14:12	1	UXJ8738.D	DB-624 0.18(mm)
240-54724-11 MSD	WC-DFRAC-082515 MSD	08/27/2015 14:35	1	UXJ8739.D	DB-624 0.18(mm)

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VB-F-1-2	240-54724-1	70	74	64	69	18	82
D-VB-F-2-2	240-54724-2	68	72	61	71	33	87
D-VB-F-3-2	240-54724-3	83	85	70	70	40	96
D-VB-F-4-2	240-54724-4	83	85	72	71	34	91
D-VB-F-5-2	240-54724-5	68	75	58	68	22	92
D-VB-F-7-2	240-54724-6	68	76	56	65	20	80
D-VB-F-8-2	240-54724-7	70	79	60	68	41	89
D-VB-F-9-2	240-54724-8	79	83	70	70	54	94
D-VS-F-1-1	240-54724-9	72	78	62	69	23	90
D-VS-F-2-1	240-54724-10	71	76	64	65	27	86
D-VS-D-1-1	240-54724-13	78	81	70	70	36	86
D-VS-D-2-1	240-54724-14	83	87	72	72	46	93
D-VS-D-3-1	240-54724-15	76	81	69	69	41	84
D-VS-D-4-1	240-54724-16	76	81	66	65	43	81
D-VB-D-1-2	240-54724-17	80	85	69	69	44	87
D-VB-D-2-2	240-54724-18	84	84	78	80	32	94
D-DUP07-082515	240-54724-19	79	85	74	74	52	96
	MB 240-195059/23-A	82	91	79	79	41	105
	MB 240-195060/5-A	70	81	70	71	18	88
	LCS 240-195059/24-A	87	92	83	74	35	89
	LCS 240-195060/6-A	81	82	76	69	35	86
D-VB-D-1-2 MS	240-54724-17 MS	76	79	71	67	46	77
D-DUP07-082515 MS	240-54724-19 MS	63	67	59	59	60	90
D-VB-D-1-2 MSD	240-54724-17 MSD	75	80	69	66	50	87
D-DUP07-082515 MSD	240-54724-19 MSD	82	85	79	73	58	92

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829004.D

Lab ID: LCS 240-195059/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	491	74	38-110	
Acenaphthylene	667	497	75	40-110	
Anthracene	667	518	78	48-110	
Benzo[a]anthracene	667	531	80	50-110	
Benzo[a]pyrene	667	584	88	44-110	
Benzo[b]fluoranthene	667	573	86	43-110	
Benzo[g,h,i]perylene	667	587	88	51-110	
Benzo[k]fluoranthene	667	590	89	38-105	
Chrysene	667	547	82	50-110	
Dibenz(a,h)anthracene	667	606	91	51-110	
Fluoranthene	667	524	79	51-110	
Fluorene	667	473	71	46-110	
Indeno[1,2,3-cd]pyrene	667	594	89	50-110	
Naphthalene	667	516	77	36-110	
Phenanthrene	667	514	77	49-110	
Pyrene	667	578	87	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829006.D

Lab ID: LCS 240-195060/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	474	71	38-110	
Acenaphthylene	667	475	71	40-110	
Anthracene	667	499	75	48-110	
Benzo[a]anthracene	667	520	78	50-110	
Benzo[a]pyrene	667	561	84	44-110	
Benzo[b]fluoranthene	667	566	85	43-110	
Benzo[g,h,i]perylene	667	576	86	51-110	
Benzo[k]fluoranthene	667	592	89	38-105	
Chrysene	667	554	83	50-110	
Dibenz(a,h)anthracene	667	617	92	51-110	
Fluoranthene	667	520	78	51-110	
Fluorene	667	463	69	46-110	
Indeno[1,2,3-cd]pyrene	667	592	89	50-110	
Naphthalene	667	474	71	36-110	
Phenanthrene	667	491	74	49-110	
Pyrene	667	562	84	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829011.D

Lab ID: 240-54724-17 MS Client ID: D-VB-D-1-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	809	0.93 U	558	69	22-110	
Acenaphthylene	809	0.43 U	577	71	24-110	
Anthracene	809	0.95 U	575	71	20-110	
Benzo[a]anthracene	809	9.3	588	72	10-122	
Benzo[a]pyrene	809	9.8	610	74	10-110	
Benzo[b]fluoranthene	809	16	617	74	12-118	
Benzo[g,h,i]perylene	809	9.8	633	77	10-117	
Benzo[k]fluoranthene	809	4.8 J	608	75	10-121	
Chrysene	809	12	601	73	10-125	
Dibenz(a,h)anthracene	809	0.80 U	676	84	14-113	
Fluoranthene	809	17	602	72	10-110	
Fluorene	809	0.65 U	543	67	23-110	
Indeno[1,2,3-cd]pyrene	809	6.5 J	650	80	10-114	
Naphthalene	809	13	566	68	10-111	
Phenanthrene	809	15	577	69	10-166	
Pyrene	809	15	642	77	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829008.D

Lab ID: 240-54724-19 MS Client ID: D-DUP07-082515 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	829	5.5 J	553	66	22-110	
Acenaphthylene	829	0.43 U	560	68	24-110	
Anthracene	829	13	669	79	20-110	
Benzo[a]anthracene	829	28	697	81	10-122	
Benzo[a]pyrene	829	23	729	85	10-110	
Benzo[b]fluoranthene	829	30	739	86	12-118	
Benzo[g,h,i]perylene	829	15	765	90	10-117	
Benzo[k]fluoranthene	829	17	740	87	10-121	
Chrysene	829	31	724	84	10-125	
Dibenz(a,h)anthracene	829	0.81 U	792	95	14-113	
Fluoranthene	829	72	749	82	10-110	
Fluorene	829	5.9 J	590	71	23-110	
Indeno[1,2,3-cd]pyrene	829	12	779	92	10-114	
Naphthalene	829	7.3 J	475	56	10-111	
Phenanthrene	829	55	704	78	10-166	
Pyrene	829	60	770	86	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829012.D

Lab ID: 240-54724-17 MSD Client ID: D-VB-D-1-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	815	557	68	0	99	22-110	
Acenaphthylene	815	571	70	1	99	24-110	
Anthracene	815	626	77	9	99	20-110	
Benzo[a]anthracene	815	670	81	13	99	10-122	
Benzo[a]pyrene	815	682	82	11	99	10-110	
Benzo[b]fluoranthene	815	714	86	15	99	12-118	
Benzo[g,h,i]perylene	815	705	85	11	99	10-117	
Benzo[k]fluoranthene	815	673	82	10	99	10-121	
Chrysene	815	689	83	14	99	10-125	
Dibenz(a,h)anthracene	815	738	91	9	99	14-113	
Fluoranthene	815	663	79	10	99	10-110	
Fluorene	815	579	71	7	99	23-110	
Indeno[1,2,3-cd]pyrene	815	717	87	10	99	10-114	
Naphthalene	815	544	65	4	99	10-111	
Phenanthrene	815	626	75	8	99	10-166	
Pyrene	815	727	87	12	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829009.D

Lab ID: 240-54724-19 MSD Client ID: D-DUP07-082515 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	813	612	75	10	99	22-110	
Acenaphthylene	813	621	76	10	99	24-110	
Anthracene	813	663	80	1	99	20-110	
Benzo[a]anthracene	813	704	83	1	99	10-122	
Benzo[a]pyrene	813	702	83	4	99	10-110	
Benzo[b]fluoranthene	813	757	89	2	99	12-118	
Benzo[g,h,i]perylene	813	753	91	1	99	10-117	
Benzo[k]fluoranthene	813	682	82	8	99	10-121	
Chrysene	813	717	84	1	99	10-125	
Dibenz(a,h)anthracene	813	785	97	1	99	14-113	
Fluoranthene	813	721	80	4	99	10-110	
Fluorene	813	612	75	4	99	23-110	
Indeno[1,2,3-cd]pyrene	813	749	91	4	99	10-114	
Naphthalene	813	602	73	24	99	10-111	
Phenanthrene	813	689	78	2	99	10-166	
Pyrene	813	774	88	1	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829003.D Lab Sample ID: MB 240-195059/23-A

Matrix: Solid Date Extracted: 08/27/2015 08:14

Instrument ID: A4HP9 Date Analyzed: 08/29/2015 10:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195059/24-A	50829004.D	08/29/2015 10:30
D-VB-D-1-2	240-54724-17	50829010.D	08/29/2015 12:56
D-VB-D-1-2 MS	240-54724-17 MS	50829011.D	08/29/2015 13:20
D-VB-D-1-2 MSD	240-54724-17 MSD	50829012.D	08/29/2015 13:44
D-VS-D-4-1	240-54724-16	50829013.D	08/29/2015 14:09
D-VS-D-3-1	240-54724-15	50829014.D	08/29/2015 14:33
D-VB-F-9-2	240-54724-8	50829015.D	08/29/2015 14:57
D-VS-F-2-1	240-54724-10	50829016.D	08/29/2015 15:22
D-VS-D-1-1	240-54724-13	50829017.D	08/29/2015 15:46
D-VS-D-2-1	240-54724-14	50829018.D	08/29/2015 16:10
D-VB-F-3-2	240-54724-3	50829019.D	08/29/2015 16:34
D-VB-F-4-2	240-54724-4	50829020.D	08/29/2015 16:59
D-VB-F-1-2	240-54724-1	50829022.D	08/29/2015 17:47
D-VB-F-2-2	240-54724-2	50829023.D	08/29/2015 18:12
D-VB-F-5-2	240-54724-5	50829024.D	08/29/2015 18:36
D-VB-F-7-2	240-54724-6	50829025.D	08/29/2015 19:00
D-VB-F-8-2	240-54724-7	50829026.D	08/29/2015 19:24
D-VS-F-1-1	240-54724-9	50829027.D	08/29/2015 19:49

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829005.D Lab Sample ID: MB 240-195060/5-A

Matrix: Solid Date Extracted: 08/27/2015 08:19

Instrument ID: A4HP9 Date Analyzed: 08/29/2015 10:54

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195060/6-A	50829006.D	08/29/2015 11:19
D-DUP07-082515	240-54724-19	50829007.D	08/29/2015 11:43
D-DUP07-082515 MS	240-54724-19 MS	50829008.D	08/29/2015 12:07
D-DUP07-082515 MSD	240-54724-19 MSD	50829009.D	08/29/2015 12:31
D-VB-D-2-2	240-54724-18	50829021.D	08/29/2015 17:23

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829001.D DFTPP Injection Date: 08/29/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:19

Analysis Batch No.: 195413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.4	
70	Less than 2.0% of mass 69	0.6	(0.8)1
127	25.0 - 75.0% of mass 198	52.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	51.0	
443	15.0 - 24.0% of mass 442	9.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-195413/2	50829002.D	08/29/2015	09:41
	MB 240-195059/23-A	50829003.D	08/29/2015	10:06
	LCS 240-195059/24-A	50829004.D	08/29/2015	10:30
	MB 240-195060/5-A	50829005.D	08/29/2015	10:54
	LCS 240-195060/6-A	50829006.D	08/29/2015	11:19
D-DUP07-082515	240-54724-19	50829007.D	08/29/2015	11:43
D-DUP07-082515 MS	240-54724-19 MS	50829008.D	08/29/2015	12:07
D-DUP07-082515 MSD	240-54724-19 MSD	50829009.D	08/29/2015	12:31
D-VB-D-1-2	240-54724-17	50829010.D	08/29/2015	12:56
D-VB-D-1-2 MS	240-54724-17 MS	50829011.D	08/29/2015	13:20
D-VB-D-1-2 MSD	240-54724-17 MSD	50829012.D	08/29/2015	13:44
D-VS-D-4-1	240-54724-16	50829013.D	08/29/2015	14:09
D-VS-D-3-1	240-54724-15	50829014.D	08/29/2015	14:33
D-VB-F-9-2	240-54724-8	50829015.D	08/29/2015	14:57
D-VS-F-2-1	240-54724-10	50829016.D	08/29/2015	15:22
D-VS-D-1-1	240-54724-13	50829017.D	08/29/2015	15:46
D-VS-D-2-1	240-54724-14	50829018.D	08/29/2015	16:10
D-VB-F-3-2	240-54724-3	50829019.D	08/29/2015	16:34
D-VB-F-4-2	240-54724-4	50829020.D	08/29/2015	16:59
D-VB-D-2-2	240-54724-18	50829021.D	08/29/2015	17:23
D-VB-F-1-2	240-54724-1	50829022.D	08/29/2015	17:47
D-VB-F-2-2	240-54724-2	50829023.D	08/29/2015	18:12
D-VB-F-5-2	240-54724-5	50829024.D	08/29/2015	18:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829001.D DFTPP Injection Date: 08/29/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:19

Analysis Batch No.: 195413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.4	
70	Less than 2.0% of mass 69	0.6	(0.8)1
127	25.0 - 75.0% of mass 198	52.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	51.0	
443	15.0 - 24.0% of mass 442	9.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
D-VB-F-7-2	240-54724-6	50829025.D	08/29/2015	19:00
D-VB-F-8-2	240-54724-7	50829026.D	08/29/2015	19:24
D-VS-F-1-1	240-54724-9	50829027.D	08/29/2015	19:49

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-195413/2 CCVIS		146822	6.17	586801	7.29	315463	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-195413/2 CCVIS		509104	10.05	531332	12.30	450749	13.91

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195413/2 Date Analyzed: 08/29/2015 09:41

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50829002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		146822	6.17	586801	7.29	315463	8.79
UPPER LIMIT		293644	6.67	1173602	7.79	630926	9.29
LOWER LIMIT		73411	5.67	293401	6.79	157732	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-195059/23-A		121180	6.17	468221	7.29	258149	8.79
LCS 240-195059/24-A		118290	6.17	490542	7.29	274862	8.79
MB 240-195060/5-A		123410	6.17	487065	7.29	267087	8.79
LCS 240-195060/6-A		122046	6.17	496582	7.30	274286	8.79
240-54724-19	D-DUP07-082515	119729	6.17	464778	7.29	252750	8.79
240-54724-19 MS	D-DUP07-082515 MS	121016	6.17	493280	7.29	275816	8.79
240-54724-19 MSD	D-DUP07-082515 MSD	121990	6.17	481889	7.30	266485	8.80
240-54724-17	D-VB-D-1-2	123117	6.17	505214	7.29	276422	8.79
240-54724-17 MS	D-VB-D-1-2 MS	128558	6.17	515101	7.29	284646	8.79
240-54724-17 MSD	D-VB-D-1-2 MSD	132170	6.17	539229	7.29	306116	8.79
240-54724-16	D-VS-D-4-1	125086	6.17	509450	7.29	286853	8.79
240-54724-15	D-VS-D-3-1	124750	6.17	487353	7.29	267628	8.79
240-54724-8	D-VB-F-9-2	130281	6.17	511012	7.29	275325	8.79
240-54724-10	D-VS-F-2-1	126451	6.17	501401	7.30	274413	8.79
240-54724-13	D-VS-D-1-1	120755	6.17	488420	7.29	264766	8.79
240-54724-14	D-VS-D-2-1	123459	6.17	491306	7.29	271820	8.79
240-54724-3	D-VB-F-3-2	133004	6.17	549198	7.29	304649	8.79
240-54724-4	D-VB-F-4-2	130548	6.17	518747	7.29	291973	8.79
240-54724-18	D-VB-D-2-2	120761	6.17	473407	7.29	259327	8.79
240-54724-1	D-VB-F-1-2	126447	6.17	497693	7.29	271022	8.79
240-54724-2	D-VB-F-2-2	125172	6.17	478622	7.29	260494	8.79
240-54724-5	D-VB-F-5-2	127808	6.17	509795	7.29	283474	8.79
240-54724-6	D-VB-F-7-2	131582	6.17	522919	7.29	293294	8.79
240-54724-7	D-VB-F-8-2	138477	6.17	549756	7.29	309752	8.79
240-54724-9	D-VS-F-1-1	135317	6.17	535878	7.29	291888	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195413/2 Date Analyzed: 08/29/2015 09:41

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50829002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		509104	10.05	531332	12.30	450749	13.91
UPPER LIMIT		1018208	10.55	1062664	12.80	901498	14.41
LOWER LIMIT		254552	9.55	265666	11.80	225375	13.41
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-195059/23-A		412192	10.05	425164	12.30	350570	13.91
LCS 240-195059/24-A		432380	10.05	460307	12.30	381255	13.91
MB 240-195060/5-A		428865	10.05	436772	12.30	358410	13.91
LCS 240-195060/6-A		437408	10.05	467111	12.30	381539	13.91
240-54724-19	D-DUP07-082515	421767	10.05	457076	12.30	378760	13.91
240-54724-19 MS	D-DUP07-082515 MS	443165	10.05	481660	12.30	424383	13.91
240-54724-19 MSD	D-DUP07-082515 MSD	440477	10.05	454722	12.30	413016	13.91
240-54724-17	D-VB-D-1-2	442762	10.05	473513	12.30	410256	13.91
240-54724-17 MS	D-VB-D-1-2 MS	459777	10.05	495820	12.30	443725	13.91
240-54724-17 MSD	D-VB-D-1-2 MSD	489885	10.05	519069	12.30	467209	13.91
240-54724-16	D-VS-D-4-1	460879	10.05	486288	12.30	432381	13.91
240-54724-15	D-VS-D-3-1	425411	10.05	449688	12.30	401419	13.91
240-54724-8	D-VB-F-9-2	454449	10.05	487475	12.30	413755	13.91
240-54724-10	D-VS-F-2-1	434052	10.05	452957	12.30	411009	13.91
240-54724-13	D-VS-D-1-1	421436	10.05	456407	12.30	397693	13.91
240-54724-14	D-VS-D-2-1	445305	10.05	473983	12.30	421345	13.91
240-54724-3	D-VB-F-3-2	497003	10.05	524308	12.30	431672	13.91
240-54724-4	D-VB-F-4-2	480539	10.05	520067	12.30	428213	13.91
240-54724-18	D-VB-D-2-2	417576	10.05	449309	12.30	415887	13.91
240-54724-1	D-VB-F-1-2	439449	10.05	474389	12.30	432542	13.91
240-54724-2	D-VB-F-2-2	430937	10.05	468240	12.30	444443	13.91
240-54724-5	D-VB-F-5-2	477744	10.05	519175	12.30	445481	13.91
240-54724-6	D-VB-F-7-2	477753	10.05	541161	12.30	484960	13.91
240-54724-7	D-VB-F-8-2	498674	10.05	566527	12.30	502956	13.91
240-54724-9	D-VS-F-1-1	489939	10.05	544436	12.30	479197	13.91

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-1-2 | Lab Sample ID: 240-54724-1

Matrix: Solid | Lab File ID: 50829022.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:30

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.94(g) | Date Analyzed: 08/29/2015 17:47

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	200		15	1.8
208-96-8	Acenaphthylene	0.81	U	15	0.81
120-12-7	Anthracene	260		15	1.8
56-55-3	Benzo[a]anthracene	760		15	1.5
50-32-8	Benzo[a]pyrene	760		15	1.5
205-99-2	Benzo[b]fluoranthene	1000		15	1.4
191-24-2	Benzo[g,h,i]perylene	500		15	0.81
207-08-9	Benzo[k]fluoranthene	430		15	1.6
218-01-9	Chrysene	840		15	2.6
53-70-3	Dibenz(a,h)anthracene	120		15	1.5
206-44-0	Fluoranthene	1700		15	1.3
86-73-7	Fluorene	120		15	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	430		15	0.81
91-20-3	Naphthalene	100		15	1.9
85-01-8	Phenanthrene	1000		15	1.7
129-00-0	Pyrene	1500		15	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-2-2 | Lab Sample ID: 240-54724-2

Matrix: Solid | Lab File ID: 50829023.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:32

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.40(g) | Date Analyzed: 08/29/2015 18:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	27		7.4	0.85
208-96-8	Acenaphthylene	6.1	J	7.4	0.39
120-12-7	Anthracene	57		7.4	0.87
56-55-3	Benzo[a]anthracene	150		7.4	0.70
50-32-8	Benzo[a]pyrene	160		7.4	0.71
205-99-2	Benzo[b]fluoranthene	200		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	110		7.4	0.39
207-08-9	Benzo[k]fluoranthene	83		7.4	0.76
218-01-9	Chrysene	160		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	33		7.4	0.74
206-44-0	Fluoranthene	270		7.4	0.61
86-73-7	Fluorene	23		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	97		7.4	0.39
91-20-3	Naphthalene	13		7.4	0.92
85-01-8	Phenanthrene	190		7.4	0.82
129-00-0	Pyrene	240		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	72		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-3-2 | Lab Sample ID: 240-54724-3

Matrix: Solid | Lab File ID: 50829019.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:34

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.22(g) | Date Analyzed: 08/29/2015 16:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	4.2	J	7.7	0.90
56-55-3	Benzo[a]anthracene	14		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	17		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	9.0		7.7	0.40
207-08-9	Benzo[k]fluoranthene	8.0		7.7	0.79
218-01-9	Chrysene	17		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	35		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	7.6	J	7.7	0.40
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	17		7.7	0.84
129-00-0	Pyrene	33		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-4-2 | Lab Sample ID: 240-54724-4

Matrix: Solid | Lab File ID: 50829020.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:36

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.00(g) | Date Analyzed: 08/29/2015 16:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.1	0.92
208-96-8	Acenaphthylene	0.42	U	8.1	0.42
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	0.76	U	8.1	0.76
50-32-8	Benzo[a]pyrene	0.78	U	8.1	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.1	0.72
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.1	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.1	0.82
218-01-9	Chrysene	1.3	U	8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	0.67	U	8.1	0.67
86-73-7	Fluorene	0.64	U	8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.1	0.42
91-20-3	Naphthalene	6.9	J	8.1	0.99
85-01-8	Phenanthrene	0.89	U	8.1	0.89
129-00-0	Pyrene	0.53	U	8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	34		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-5-2 | Lab Sample ID: 240-54724-5

Matrix: Solid | Lab File ID: 50829024.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:38

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.28(g) | Date Analyzed: 08/29/2015 18:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.5	J	7.8	0.91
56-55-3	Benzo[a]anthracene	22		7.8	0.74
50-32-8	Benzo[a]pyrene	25		7.8	0.75
205-99-2	Benzo[b]fluoranthene	39		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	19		7.8	0.41
207-08-9	Benzo[k]fluoranthene	14		7.8	0.80
218-01-9	Chrysene	32		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	41		7.8	0.65
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	16		7.8	0.41
91-20-3	Naphthalene	9.1		7.8	0.96
85-01-8	Phenanthrene	15		7.8	0.86
129-00-0	Pyrene	38		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-7-2 | Lab Sample ID: 240-54724-6

Matrix: Solid | Lab File ID: 50829025.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:40

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.40(g) | Date Analyzed: 08/29/2015 19:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	5.6	J	7.5	0.88
56-55-3	Benzo[a]anthracene	25		7.5	0.71
50-32-8	Benzo[a]pyrene	30		7.5	0.72
205-99-2	Benzo[b]fluoranthene	37		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	26		7.5	0.39
207-08-9	Benzo[k]fluoranthene	15		7.5	0.76
218-01-9	Chrysene	26		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	5.7	J	7.5	0.74
206-44-0	Fluoranthene	36		7.5	0.62
86-73-7	Fluorene	0.60	U	7.5	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	18		7.5	0.39
91-20-3	Naphthalene	8.4		7.5	0.92
85-01-8	Phenanthrene	19		7.5	0.82
129-00-0	Pyrene	34		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		36-110
4165-62-2	Phenol-d5 (Surr)	76		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	20		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-8-2 | Lab Sample ID: 240-54724-7

Matrix: Solid | Lab File ID: 50829026.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:42

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.98(g) | Date Analyzed: 08/29/2015 19:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.2		7.8	0.89
208-96-8	Acenaphthylene	4.4	J	7.8	0.41
120-12-7	Anthracene	18		7.8	0.91
56-55-3	Benzo[a]anthracene	54		7.8	0.74
50-32-8	Benzo[a]pyrene	62		7.8	0.75
205-99-2	Benzo[b]fluoranthene	78		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	39		7.8	0.41
207-08-9	Benzo[k]fluoranthene	36		7.8	0.80
218-01-9	Chrysene	67		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	12		7.8	0.77
206-44-0	Fluoranthene	110		7.8	0.64
86-73-7	Fluorene	8.5		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	35		7.8	0.41
91-20-3	Naphthalene	49		7.8	0.96
85-01-8	Phenanthrene	67		7.8	0.85
129-00-0	Pyrene	92		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-9-2 | Lab Sample ID: 240-54724-8

Matrix: Solid | Lab File ID: 50829015.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:44

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.31(g) | Date Analyzed: 08/29/2015 14:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	0.92	U	7.9	0.92
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.9	0.41
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	0.65	U	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.86	U	7.9	0.86
129-00-0	Pyrene	0.52	U	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	83		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	54		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-F-1-1 | Lab Sample ID: 240-54724-9

Matrix: Solid | Lab File ID: 50829027.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:46

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.09(g) | Date Analyzed: 08/29/2015 19:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.5	J	8.1	0.93
208-96-8	Acenaphthylene	6.2	J	8.1	0.43
120-12-7	Anthracene	21		8.1	0.95
56-55-3	Benzo[a]anthracene	100		8.1	0.77
50-32-8	Benzo[a]pyrene	110		8.1	0.78
205-99-2	Benzo[b]fluoranthene	150		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	83		8.1	0.43
207-08-9	Benzo[k]fluoranthene	56		8.1	0.83
218-01-9	Chrysene	110		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	21		8.1	0.80
206-44-0	Fluoranthene	160		8.1	0.67
86-73-7	Fluorene	6.8	J	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	71		8.1	0.43
91-20-3	Naphthalene	10		8.1	1.0
85-01-8	Phenanthrene	79		8.1	0.89
129-00-0	Pyrene	150		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	78		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-F-2-1 | Lab Sample ID: 240-54724-10

Matrix: Solid | Lab File ID: 50829016.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:48

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.87(g) | Date Analyzed: 08/29/2015 15:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	10		7.7	0.73
50-32-8	Benzo[a]pyrene	9.6		7.7	0.74
205-99-2	Benzo[b]fluoranthene	19		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	17		7.7	0.41
207-08-9	Benzo[k]fluoranthene	6.8	J	7.7	0.79
218-01-9	Chrysene	13		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	15		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	12		7.7	0.41
91-20-3	Naphthalene	13		7.7	0.95
85-01-8	Phenanthrene	6.4	J	7.7	0.85
129-00-0	Pyrene	14		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	76		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	71		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	27		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-1-1 | Lab Sample ID: 240-54724-13

Matrix: Solid | Lab File ID: 50829017.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:20

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.95(g) | Date Analyzed: 08/29/2015 15:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	71		7.9	0.91
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	63		7.9	0.93
56-55-3	Benzo[a]anthracene	53		7.9	0.75
50-32-8	Benzo[a]pyrene	50		7.9	0.76
205-99-2	Benzo[b]fluoranthene	71		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	32		7.9	0.42
207-08-9	Benzo[k]fluoranthene	19		7.9	0.81
218-01-9	Chrysene	56		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	8.7		7.9	0.79
206-44-0	Fluoranthene	150		7.9	0.66
86-73-7	Fluorene	71		7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	27		7.9	0.42
91-20-3	Naphthalene	190		7.9	0.98
85-01-8	Phenanthrene	270		7.9	0.87
129-00-0	Pyrene	120		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	78		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-2-1 | Lab Sample ID: 240-54724-14

Matrix: Solid | Lab File ID: 50829018.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:22

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.66(g) | Date Analyzed: 08/29/2015 16:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	11		8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	7.6	J	8.0	0.93
56-55-3	Benzo[a]anthracene	4.6	J	8.0	0.75
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	5.9	J	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	8.0	0.81
218-01-9	Chrysene	5.5	J	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	16		8.0	0.66
86-73-7	Fluorene	10		8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	29		8.0	0.98
85-01-8	Phenanthrene	40		8.0	0.87
129-00-0	Pyrene	14		8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		36-110
4165-62-2	Phenol-d5 (Surr)	87		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	72		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-3-1 | Lab Sample ID: 240-54724-15

Matrix: Solid | Lab File ID: 50829014.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:24

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.90(g) | Date Analyzed: 08/29/2015 14:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	92		8.5	0.97
208-96-8	Acenaphthylene	0.45	U	8.5	0.45
120-12-7	Anthracene	31		8.5	1.0
56-55-3	Benzo[a]anthracene	21		8.5	0.81
50-32-8	Benzo[a]pyrene	18		8.5	0.82
205-99-2	Benzo[b]fluoranthene	24		8.5	0.76
191-24-2	Benzo[g,h,i]perylene	11		8.5	0.45
207-08-9	Benzo[k]fluoranthene	8.8		8.5	0.87
218-01-9	Chrysene	23		8.5	1.4
53-70-3	Dibenz(a,h)anthracene	0.84	U	8.5	0.84
206-44-0	Fluoranthene	81		8.5	0.70
86-73-7	Fluorene	96		8.5	0.68
193-39-5	Indeno[1,2,3-cd]pyrene	11		8.5	0.45
91-20-3	Naphthalene	150		8.5	1.0
85-01-8	Phenanthrene	200		8.5	0.93
129-00-0	Pyrene	64		8.5	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-4-1 | Lab Sample ID: 240-54724-16

Matrix: Solid | Lab File ID: 50829013.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:26

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.23(g) | Date Analyzed: 08/29/2015 14:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	4.5	J	7.7	0.90
56-55-3	Benzo[a]anthracene	14		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	15		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	11		7.7	0.41
207-08-9	Benzo[k]fluoranthene	7.8		7.7	0.79
218-01-9	Chrysene	14		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	22		7.7	0.64
86-73-7	Fluorene	14		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	7.2	J	7.7	0.41
91-20-3	Naphthalene	43		7.7	0.95
85-01-8	Phenanthrene	31		7.7	0.85
129-00-0	Pyrene	20		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-1-2 | Lab Sample ID: 240-54724-17

Matrix: Solid | Lab File ID: 50829010.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:28

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.26(g) | Date Analyzed: 08/29/2015 12:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	9.3		8.1	0.77
50-32-8	Benzo[a]pyrene	9.8		8.1	0.78
205-99-2	Benzo[b]fluoranthene	16		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	9.8		8.1	0.43
207-08-9	Benzo[k]fluoranthene	4.8	J	8.1	0.83
218-01-9	Chrysene	12		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	17		8.1	0.67
86-73-7	Fluorene	0.65	U	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	6.5	J	8.1	0.43
91-20-3	Naphthalene	13		8.1	1.0
85-01-8	Phenanthrene	15		8.1	0.89
129-00-0	Pyrene	15		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	80		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-2-2 | Lab Sample ID: 240-54724-18

Matrix: Solid | Lab File ID: 50829021.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:30

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 29.77(g) | Date Analyzed: 08/29/2015 17:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	86		31	3.6
208-96-8	Acenaphthylene	82		31	1.6
120-12-7	Anthracene	610		31	3.7
56-55-3	Benzo[a]anthracene	2300		31	3.0
50-32-8	Benzo[a]pyrene	1700		31	3.0
205-99-2	Benzo[b]fluoranthene	2200		31	2.8
191-24-2	Benzo[g,h,i]perylene	1100		31	1.6
207-08-9	Benzo[k]fluoranthene	1000		31	3.2
218-01-9	Chrysene	2100		31	5.2
53-70-3	Dibenz(a,h)anthracene	290		31	3.1
206-44-0	Fluoranthene	4200		31	2.6
86-73-7	Fluorene	150		31	2.5
193-39-5	Indeno[1,2,3-cd]pyrene	950		31	1.6
91-20-3	Naphthalene	23	J	31	3.9
85-01-8	Phenanthrene	2300		31	3.4
129-00-0	Pyrene	3700		31	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	78		20-110
367-12-4	2-Fluorophenol (Surr)	84		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-DUP07-082515 | Lab Sample ID: 240-54724-19

Matrix: Solid | Lab File ID: 50829007.D

Analysis Method: 8270D | Date Collected: 08/25/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30.20(g) | Date Analyzed: 08/29/2015 11:43

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.5	J	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	13		8.1	0.95
56-55-3	Benzo[a]anthracene	28		8.1	0.77
50-32-8	Benzo[a]pyrene	23		8.1	0.78
205-99-2	Benzo[b]fluoranthene	30		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	15		8.1	0.43
207-08-9	Benzo[k]fluoranthene	17		8.1	0.83
218-01-9	Chrysene	31		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.1	0.81
206-44-0	Fluoranthene	72		8.1	0.67
86-73-7	Fluorene	5.9	J	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	12		8.1	0.43
91-20-3	Naphthalene	7.3	J	8.1	1.0
85-01-8	Phenanthrene	55		8.1	0.89
129-00-0	Pyrene	60		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	52		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID (1): CCV 240-195413/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/29/2015 09:41

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.90	100.0
Phenol-d5 (Surr)	5.84	100.0
Nitrobenzene-d5 (Surr)	6.65	100.0
Naphthalene	7.31	100.0
2-Fluorobiphenyl (Surr)	8.20	100.0
Acenaphthylene	8.68	100.0
Acenaphthene	8.82	100.0
Fluorene	9.25	100.0
2,4,6-Tribromophenol (Surr)	9.46	100.0
Phenanthrene	10.08	100.0
Anthracene	10.12	100.0
Fluoranthene	11.09	100.0
Pyrene	11.28	100.0
Terphenyl-d14 (Surr)	11.37	100.0
Benzo[a]anthracene	12.29	100.0
Chrysene	12.33	100.0
Benzo[b]fluoranthene	13.41	43.90
Benzo[k]fluoranthene	13.44	100.0
Benzo[a]pyrene	13.84	100.0
Indeno[1,2,3-cd]pyrene	15.65	100.0
Dibenz(a,h)anthracene	15.65	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.693	2.109		12.5	10.0	24.6*	20.0
Pyridine	Ave	2.930	3.405		11.6	10.0	16.2	20.0
Benzaldehyde	Ave	2.328	2.393	0.0100	20.6	20.0	2.8	20.0
Phenol	Ave	2.775	3.070	0.8000	11.1	10.0	10.6	20.0
Aniline	Ave	3.583	3.814		10.6	10.0	6.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.641	0.7000	10.5	10.0	5.4	20.0
2-Chlorophenol	Ave	1.523	1.507	0.8000	9.89	10.0	-1.1	20.0
n-Decane	Ave	1.999	2.356		11.8	10.0	17.8	20.0
1,3-Dichlorobenzene	Ave	1.630	1.543		9.47	10.0	-5.3	20.0
1,4-Dichlorobenzene	Ave	1.666	1.637		9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	1.232	1.193		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.580	1.511		9.57	10.0	-4.3	20.0
2-Methylphenol	Ave	1.706	1.652	0.7000	9.68	10.0	-3.2	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.787		9.48	10.0	-5.2	20.0
Indene	Ave	3.185	2.995		18.8	20.0	-6.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	2.119	0.5000	10.7	10.0	7.0	20.0
Acetophenone	Ave	2.817	2.702	0.0100	9.59	10.0	-4.1	20.0
3 & 4 Methylphenol	Ave	1.799	1.732		9.63	10.0	-3.7	20.0
Hexachloroethane	Ave	0.8166	0.7830	0.3000	9.59	10.0	-4.1	20.0
Nitrobenzene	Ave	0.7749	0.8018	0.2000	10.3	10.0	3.5	20.0
Isophorone	Ave	1.226	1.296	0.4000	10.6	10.0	5.7	20.0
2-Nitrophenol	Ave	0.1796	0.1866	0.1000	10.4	10.0	3.9	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4877	0.2000	9.97	10.0	-0.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.7283	0.3000	10.8	10.0	7.7	20.0
Benzoic acid	Lin1		0.1694		15.2	20.0	-24.0*	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2818	0.2000	9.20	10.0	-8.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3002		9.23	10.0	-7.7	20.0
Naphthalene	Ave	1.144	1.041	0.7000	9.10	10.0	-9.0	20.0
4-Chloroaniline	Ave	0.4932	0.4570	0.0100	9.27	10.0	-7.3	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2709		9.13	10.0	-8.7	20.0
Hexachlorobutadiene	Ave	0.2017	0.1715	0.0100	8.50	10.0	-15.0	20.0
Caprolactam	Ave	0.1384	0.1476	0.0100	21.3	20.0	6.6	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4047	0.2000	9.68	10.0	-3.2	20.0
2-Methylnaphthalene	Ave	0.7006	0.6443	0.4000	9.20	10.0	-8.0	20.0
1-Methylnaphthalene	Ave	0.6168	0.5583		9.05	10.0	-9.5	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.1825	0.0500	5.50	10.0	-45.0*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5335	0.0100	9.37	10.0	-6.3	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3517	0.2000	9.39	10.0	-6.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3388	0.2000	8.59	10.0	-14.1	20.0
1,1'-Biphenyl	Ave	1.483	1.416	0.0100	9.55	10.0	-4.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 | Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.171	1.118	0.8000	9.55	10.0	-4.5	20.0
2-Nitroaniline	Ave	0.6109	0.6983	0.0100	11.4	10.0	14.3	20.0
Dimethyl phthalate	Ave	1.267	1.236	0.0100	9.75	10.0	-2.5	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2287		11.6	10.0	15.9	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2941		10.5	10.0	4.9	20.0
Acenaphthylene	Ave	1.869	1.782	0.9000	9.54	10.0	-4.6	20.0
3-Nitroaniline	Ave	0.3056	0.3210	0.0100	10.5	10.0	5.0	20.0
2,4-Dinitrophenol	Lin1		0.1430	0.0100	19.7	20.0	-1.7	20.0
Acenaphthene	Ave	1.201	1.089	0.9000	9.07	10.0	-9.3	20.0
4-Nitrophenol	Ave	0.2548	0.2372		18.6	20.0	-6.9	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3911	0.2000	10.5	10.0	4.6	20.0
Dibenzofuran	Ave	1.648	1.508	0.8000	9.15	10.0	-8.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.2595	0.0100	8.24	10.0	-17.6	20.0
Diethyl phthalate	Ave	1.245	1.114	0.0100	8.95	10.0	-10.5	20.0
Hexadecane	Ave	1.016	1.053		10.4	10.0	3.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5724	0.4000	9.33	10.0	-6.7	20.0
4-Nitroaniline	Ave	0.2967	0.3170	0.0100	10.7	10.0	6.8	20.0
Fluorene	Ave	1.379	1.226	0.9000	8.89	10.0	-11.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1355	0.0100	22.0	20.0	10.0	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5228	0.0100	18.4	20.0	-8.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.649		10.4	10.0	4.4	20.0
Azobenzene	Ave	1.580	1.649		10.4	10.0	4.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.1869	0.1000	8.75	10.0	-12.5	20.0
Hexachlorobenzene	Ave	0.2114	0.1803	0.1000	8.53	10.0	-14.7	20.0
Atrazine	Ave	0.2132	0.2147	0.0100	20.1	20.0	0.7	20.0
n-Octadecane	Ave	0.6421	0.6970		10.9	10.0	8.5	20.0
Pentachlorophenol	Ave	0.1444	0.1024	0.0500	14.2	20.0	-29.0*	20.0
Phenanthrene	Ave	1.268	1.154	0.7000	9.10	10.0	-9.0	20.0
Anthracene	Ave	1.261	1.174	0.7000	9.31	10.0	-6.9	20.0
Carbazole	Ave	1.050	1.066	0.0100	10.1	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.321	0.0100	10.6	10.0	5.7	20.0
Fluoranthene	Ave	1.280	1.222	0.6000	9.55	10.0	-4.5	20.0
Benzidine	Lin1		0.7168		23.2	20.0	15.8	20.0
Pyrene	Ave	1.153	1.215	0.6000	10.5	10.0	5.4	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5730	0.0100	10.7	10.0	6.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.8037	0.0100	11.0	10.0	9.9	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3871	0.0100	21.5	20.0	7.7	20.0
Benzo[a]anthracene	Ave	1.234	1.210	0.8000	9.80	10.0	-2.0	20.0
Chrysene	Ave	1.158	1.095	0.7000	9.45	10.0	-5.5	20.0
Di-n-octyl phthalate	Ave	1.419	1.678	0.0100	11.8	10.0	18.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.185	1.191	0.7000	10.1	10.0	0.5	20.0
Benzo[k]fluoranthene	Ave	1.198	1.307	0.7000	10.9	10.0	9.1	20.0
Benzo[a]pyrene	Ave	1.128	1.167	0.7000	10.3	10.0	3.4	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.029	0.4000	11.2	10.0	11.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.264	0.5000	10.8	10.0	7.8	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.032	0.5000	10.6	10.0	6.0	20.0
1,4-Dioxane	Ave	0.9857			0.000490	10.0		
2-Fluorophenol (Surr)	Ave	1.750	1.834		10.5	10.0	4.8	20.0
Phenol-d5 (Surr)	Ave	2.475	2.601		10.5	10.0	5.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7775		10.0	10.0	0.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.203		9.21	10.0	-7.9	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.0977		7.51	10.0	-24.9*	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7417		10.1	10.0	0.7	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195059/23-A

Matrix: Solid | Lab File ID: 50829003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	105		36-110
4165-62-2	Phenol-d5 (Surr)	91		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	79		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195060/5-A

Matrix: Solid | Lab File ID: 50829005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-195059/24-A

Matrix: Solid | Lab File ID: 50829004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	491		6.7	0.76
208-96-8	Acenaphthylene	497		6.7	0.35
120-12-7	Anthracene	518		6.7	0.78
56-55-3	Benzo[a]anthracene	531		6.7	0.63
50-32-8	Benzo[a]pyrene	584		6.7	0.64
205-99-2	Benzo[b]fluoranthene	573		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	587		6.7	0.35
207-08-9	Benzo[k]fluoranthene	590		6.7	0.68
218-01-9	Chrysene	547		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	606		6.7	0.66
206-44-0	Fluoranthene	524		6.7	0.55
86-73-7	Fluorene	473		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	594		6.7	0.35
91-20-3	Naphthalene	516		6.7	0.82
85-01-8	Phenanthrene	514		6.7	0.73
129-00-0	Pyrene	578		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	92		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	83		20-110
367-12-4	2-Fluorophenol (Surr)	87		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	35		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-195060/6-A

Matrix: Solid | Lab File ID: 50829006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 11:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	474		6.7	0.76
208-96-8	Acenaphthylene	475		6.7	0.35
120-12-7	Anthracene	499		6.7	0.78
56-55-3	Benzo[a]anthracene	520		6.7	0.63
50-32-8	Benzo[a]pyrene	561		6.7	0.64
205-99-2	Benzo[b]fluoranthene	566		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	576		6.7	0.35
207-08-9	Benzo[k]fluoranthene	592		6.7	0.68
218-01-9	Chrysene	554		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	617		6.7	0.66
206-44-0	Fluoranthene	520		6.7	0.55
86-73-7	Fluorene	463		6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	592		6.7	0.35
91-20-3	Naphthalene	474		6.7	0.82
85-01-8	Phenanthrene	491		6.7	0.73
129-00-0	Pyrene	562		6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	76		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	35		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-1-2 MS | Lab Sample ID: 240-54724-17 MS

Matrix: Solid | Lab File ID: 50829011.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:28

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.38(g) | Date Analyzed: 08/29/2015 13:20

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	558		8.1	0.92
208-96-8	Acenaphthylene	577		8.1	0.42
120-12-7	Anthracene	575		8.1	0.95
56-55-3	Benzo[a]anthracene	588		8.1	0.76
50-32-8	Benzo[a]pyrene	610		8.1	0.78
205-99-2	Benzo[b]fluoranthene	617		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	633		8.1	0.42
207-08-9	Benzo[k]fluoranthene	608		8.1	0.83
218-01-9	Chrysene	601		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	676		8.1	0.80
206-44-0	Fluoranthene	602		8.1	0.67
86-73-7	Fluorene	543		8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	650		8.1	0.42
91-20-3	Naphthalene	566		8.1	0.99
85-01-8	Phenanthrene	577		8.1	0.89
129-00-0	Pyrene	642		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	71		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-DUP07-082515 MS | Lab Sample ID: 240-54724-19 MS

Matrix: Solid | Lab File ID: 50829008.D

Analysis Method: 8270D | Date Collected: 08/25/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 29.67(g) | Date Analyzed: 08/29/2015 12:07

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	553		8.3	0.94
208-96-8	Acenaphthylene	560		8.3	0.44
120-12-7	Anthracene	669		8.3	0.97
56-55-3	Benzo[a]anthracene	697		8.3	0.78
50-32-8	Benzo[a]pyrene	729		8.3	0.80
205-99-2	Benzo[b]fluoranthene	739		8.3	0.73
191-24-2	Benzo[g,h,i]perylene	765		8.3	0.44
207-08-9	Benzo[k]fluoranthene	740		8.3	0.85
218-01-9	Chrysene	724		8.3	1.4
53-70-3	Dibenz(a,h)anthracene	792		8.3	0.82
206-44-0	Fluoranthene	749		8.3	0.68
86-73-7	Fluorene	590		8.3	0.66
193-39-5	Indeno[1,2,3-cd]pyrene	779		8.3	0.44
91-20-3	Naphthalene	475		8.3	1.0
85-01-8	Phenanthrene	704		8.3	0.91
129-00-0	Pyrene	770		8.3	0.55

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	60		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-1-2 MSD | Lab Sample ID: 240-54724-17 MSD

Matrix: Solid | Lab File ID: 50829012.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:28

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.16(g) | Date Analyzed: 08/29/2015 13:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	557		8.2	0.93
208-96-8	Acenaphthylene	571		8.2	0.43
120-12-7	Anthracene	626		8.2	0.95
56-55-3	Benzo[a]anthracene	670		8.2	0.77
50-32-8	Benzo[a]pyrene	682		8.2	0.78
205-99-2	Benzo[b]fluoranthene	714		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	705		8.2	0.43
207-08-9	Benzo[k]fluoranthene	673		8.2	0.83
218-01-9	Chrysene	689		8.2	1.3
53-70-3	Dibenz(a,h)anthracene	738		8.2	0.81
206-44-0	Fluoranthene	663		8.2	0.67
86-73-7	Fluorene	579		8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	717		8.2	0.43
91-20-3	Naphthalene	544		8.2	1.0
85-01-8	Phenanthrene	626		8.2	0.89
129-00-0	Pyrene	727		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	80		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	66		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	50		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-DUP07-082515 MSD | Lab Sample ID: 240-54724-19 MSD

Matrix: Solid | Lab File ID: 50829009.D

Analysis Method: 8270D | Date Collected: 08/25/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30.26(g) | Date Analyzed: 08/29/2015 12:31

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	612		8.1	0.93
208-96-8	Acenaphthylene	621		8.1	0.43
120-12-7	Anthracene	663		8.1	0.95
56-55-3	Benzo[a]anthracene	704		8.1	0.77
50-32-8	Benzo[a]pyrene	702		8.1	0.78
205-99-2	Benzo[b]fluoranthene	757		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	753		8.1	0.43
207-08-9	Benzo[k]fluoranthene	682		8.1	0.83
218-01-9	Chrysene	717		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	785		8.1	0.80
206-44-0	Fluoranthene	721		8.1	0.67
86-73-7	Fluorene	612		8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	749		8.1	0.43
91-20-3	Naphthalene	602		8.1	1.0
85-01-8	Phenanthrene	689		8.1	0.89
129-00-0	Pyrene	774		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	58		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/08/2015 15:10

Analysis Batch Number: 192437 End Date: 08/08/2015 23:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-192437/1		08/08/2015 15:10	1	50808001.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/2 IC		08/08/2015 15:32	1	50808002.D	RXI-5SILMS 0.45(mm)
STD4 240-192437/3 IC		08/08/2015 15:57	1	50808003.D	RXI-5SILMS 0.45(mm)
STD3 240-192437/4 IC		08/08/2015 16:23	1	50808004.D	RXI-5SILMS 0.45(mm)
STD2 240-192437/5 IC		08/08/2015 16:48	1	50808005.D	RXI-5SILMS 0.45(mm)
STD1 240-192437/6 IC		08/08/2015 17:14	1	50808006.D	RXI-5SILMS 0.45(mm)
STD9 240-192437/7 IC		08/08/2015 17:39	1	50808007.D	RXI-5SILMS 0.45(mm)
STD8 240-192437/8 IC		08/08/2015 18:05	1	50808008.D	RXI-5SILMS 0.45(mm)
STD7 240-192437/9 IC		08/08/2015 18:31	1	50808009.D	RXI-5SILMS 0.45(mm)
STD6 240-192437/10 ICIS		08/08/2015 18:56	1	50808010.D	RXI-5SILMS 0.45(mm)
ICV 240-192437/11		08/08/2015 19:22	1	50808011.D	RXI-5SILMS 0.45(mm)
STD5 240-192437/12 IC		08/08/2015 19:48	1		RXI-5SILMS 0.45(mm)
STD4 240-192437/13 IC		08/08/2015 20:13	1		RXI-5SILMS 0.45(mm)
STD3 240-192437/14 IC		08/08/2015 20:39	1		RXI-5SILMS 0.45(mm)
STD2 240-192437/15 IC		08/08/2015 21:04	1		RXI-5SILMS 0.45(mm)
STD6 240-192437/16 IC		08/08/2015 21:30	1		RXI-5SILMS 0.45(mm)
STD7 240-192437/17 IC		08/08/2015 21:55	1		RXI-5SILMS 0.45(mm)
STD8 240-192437/18 IC		08/08/2015 22:21	1		RXI-5SILMS 0.45(mm)
STD9 240-192437/19 IC		08/08/2015 22:47	1		RXI-5SILMS 0.45(mm)
ICV 240-192437/20		08/08/2015 23:12	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A4HP9 Start Date: 08/29/2015 09:19

Analysis Batch Number: 195413 End Date: 08/29/2015 19:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-195413/1		08/29/2015 09:19	1	50829001.D	RXI-5SILMS 0.45(mm)
CCV 240-195413/2 CCVIS		08/29/2015 09:41	1	50829002.D	RXI-5SILMS 0.45(mm)
MB 240-195059/23-A		08/29/2015 10:06	1	50829003.D	RXI-5SILMS 0.45(mm)
LCS 240-195059/24-A		08/29/2015 10:30	1	50829004.D	RXI-5SILMS 0.45(mm)
MB 240-195060/5-A		08/29/2015 10:54	1	50829005.D	RXI-5SILMS 0.45(mm)
LCS 240-195060/6-A		08/29/2015 11:19	1	50829006.D	RXI-5SILMS 0.45(mm)
240-54724-19	D-DUP07-082515	08/29/2015 11:43	1	50829007.D	RXI-5SILMS 0.45(mm)
240-54724-19 MS	D-DUP07-082515 MS	08/29/2015 12:07	1	50829008.D	RXI-5SILMS 0.45(mm)
240-54724-19 MSD	D-DUP07-082515 MSD	08/29/2015 12:31	1	50829009.D	RXI-5SILMS 0.45(mm)
240-54724-17	D-VB-D-1-2	08/29/2015 12:56	1	50829010.D	RXI-5SILMS 0.45(mm)
240-54724-17 MS	D-VB-D-1-2 MS	08/29/2015 13:20	1	50829011.D	RXI-5SILMS 0.45(mm)
240-54724-17 MSD	D-VB-D-1-2 MSD	08/29/2015 13:44	1	50829012.D	RXI-5SILMS 0.45(mm)
240-54724-16	D-VS-D-4-1	08/29/2015 14:09	1	50829013.D	RXI-5SILMS 0.45(mm)
240-54724-15	D-VS-D-3-1	08/29/2015 14:33	1	50829014.D	RXI-5SILMS 0.45(mm)
240-54724-8	D-VB-F-9-2	08/29/2015 14:57	1	50829015.D	RXI-5SILMS 0.45(mm)
240-54724-10	D-VS-F-2-1	08/29/2015 15:22	1	50829016.D	RXI-5SILMS 0.45(mm)
240-54724-13	D-VS-D-1-1	08/29/2015 15:46	1	50829017.D	RXI-5SILMS 0.45(mm)
240-54724-14	D-VS-D-2-1	08/29/2015 16:10	1	50829018.D	RXI-5SILMS 0.45(mm)
240-54724-3	D-VB-F-3-2	08/29/2015 16:34	1	50829019.D	RXI-5SILMS 0.45(mm)
240-54724-4	D-VB-F-4-2	08/29/2015 16:59	1	50829020.D	RXI-5SILMS 0.45(mm)
240-54724-18	D-VB-D-2-2	08/29/2015 17:23	4	50829021.D	RXI-5SILMS 0.45(mm)
240-54724-1	D-VB-F-1-2	08/29/2015 17:47	2	50829022.D	RXI-5SILMS 0.45(mm)
240-54724-2	D-VB-F-2-2	08/29/2015 18:12	1	50829023.D	RXI-5SILMS 0.45(mm)
240-54724-5	D-VB-F-5-2	08/29/2015 18:36	1	50829024.D	RXI-5SILMS 0.45(mm)
240-54724-6	D-VB-F-7-2	08/29/2015 19:00	1	50829025.D	RXI-5SILMS 0.45(mm)
240-54724-7	D-VB-F-8-2	08/29/2015 19:24	1	50829026.D	RXI-5SILMS 0.45(mm)
240-54724-9	D-VS-F-1-1	08/29/2015 19:49	1	50829027.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195059 Batch Start Date: 08/27/15 12:55 Batch Analyst: Kalis, Nicole A

Batch Method: 3540C Batch End Date: 08/28/15 04:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00049	exBNASURR W 00026	
240-54724-B-1	D-VB-F-1-2	3540C, 8270D	T	29.94 g	2 mL			1 mL	
240-54724-B-2	D-VB-F-2-2	3540C, 8270D	T	30.40 g	2 mL			1 mL	
240-54724-B-3	D-VB-F-3-2	3540C, 8270D	T	30.22 g	2 mL			1 mL	
240-54724-B-4	D-VB-F-4-2	3540C, 8270D	T	30.00 g	2 mL			1 mL	
240-54724-B-5	D-VB-F-5-2	3540C, 8270D	T	30.28 g	2 mL			1 mL	
240-54724-B-6	D-VB-F-7-2	3540C, 8270D	T	30.40 g	2 mL			1 mL	
240-54724-B-7	D-VB-F-8-2	3540C, 8270D	T	29.98 g	2 mL			1 mL	
240-54724-B-8	D-VB-F-9-2	3540C, 8270D	T	30.31 g	2 mL			1 mL	
240-54724-B-9	D-VS-F-1-1	3540C, 8270D	T	30.09 g	2 mL			1 mL	
240-54724-B-10	D-VS-F-2-1	3540C, 8270D	T	29.87 g	2 mL			1 mL	
240-54724-B-13	D-VS-D-1-1	3540C, 8270D	T	29.95 g	2 mL			1 mL	
240-54724-B-14	D-VS-D-2-1	3540C, 8270D	T	29.66 g	2 mL			1 mL	
240-54724-B-15	D-VS-D-3-1	3540C, 8270D	T	29.90 g	2 mL			1 mL	
240-54724-B-16	D-VS-D-4-1	3540C, 8270D	T	30.23 g	2 mL			1 mL	
240-54724-B-17	D-VB-D-1-2	3540C, 8270D	T	30.26 g	2 mL			1 mL	
240-54724-B-17 MS	D-VB-D-1-2	3540C, 8270D	T	30.38 g	2 mL	1 mL	1 mL	1 mL	
240-54724-B-17 MSD	D-VB-D-1-2	3540C, 8270D	T	30.16 g	2 mL	1 mL	1 mL	1 mL	
MB 240-195059/23		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-195059/24		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339907
Na2SO4 Lot Number	2104026
Prep Solvent Lot #	2137025

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195060 Batch Start Date: 08/27/15 13:15 Batch Analyst: Kalis, Nicole A

Batch Method: 3540C Batch End Date: 08/28/15 05:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00049	exBNASURR W 00026	
240-54724-B-18	D-VB-D-2-2	3540C, 8270D	T	29.77 g	2 mL			1 mL	
240-54724-B-19	D-DUP07-082515	3540C, 8270D	T	30.20 g	2 mL			1 mL	
240-54724-B-19 MS	D-DUP07-082515	3540C, 8270D	T	29.67 g	2 mL	1 mL	1 mL	1 mL	
240-54724-B-19 MSD	D-DUP07-082515	3540C, 8270D	T	30.26 g	2 mL	1 mL	1 mL	1 mL	
MB 240-195060/5		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-195060/6		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339907
Na2SO4 Lot Number	2104026
Prep Solvent Lot #	2137025

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP-2 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCB1 #
WC-DFRAC-082515	240-54724-11	47	21
	MB 240-195418/2-A	58	76
	LCS 240-195418/3-A	62	64

	QC LIMITS
TCX = Tetrachloro-m-xylene	21-124
DCB = DCB Decachlorobiphenyl	10-131

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P1100011.D

Lab ID: LCS 240-195418/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	5.00	3.60	72	48-126	
Aroclor-1260	5.00	3.63	73	43-130	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: MB 240-195418/2-A

Matrix: Water Date Extracted: 08/29/2015 09:45

Lab File ID:(1) P1100010.D Lab File ID:(2)

Date Analyzed:(1) 08/30/2015 19:33 Date Analyzed:(2)

Instrument ID:(1) A2HP11 Instrument ID:(2)

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
WC-DFRAC-082515	240-54724-11	08/30/2015 19:15	
	LCS 240-195418/3-A	08/30/2015 19:51	

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD05 240-194251/31 Date Analyzed: 08/23/2015 21:15

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1100031.D Heated Purge: (Y/N) N

Calibration ID: 30273

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		102405102	3.62				
UPPER LIMIT		204810204	4.12				
LOWER LIMIT		51202551	3.12				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194251/39		111025584	3.62				
CCV 240-195464/7		99612972	3.72				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195464/3 Date Analyzed: 08/30/2015 17:26

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1100003.D Heated Purge: (Y/N) N

Calibration ID: 30273

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		100457521	3.72				
UPPER LIMIT		200915042	4.22				
LOWER LIMIT		50228761	3.22				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-195464/4		96166148	3.72				
CCV 240-195464/5		98262099	3.72				
CCV 240-195464/6		98076388	3.72				
CCV 240-195464/7		99612972	3.72				
240-54724-11	WC-DFRAC-082515	109783715	3.72				
MB 240-195418/2-A		115153264	3.72				
LCS 240-195418/3-A		118003318	3.73				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-195418/3-A

Instrument ID (1): A2HP11 Instrument ID (2):

Date Analyzed (1): 08/30/2015 19:51 Date Analyzed (2):

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): ID:

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		
				FROM	TO	PEAK	MEAN	
Aroclor-1016	2	1	5.74	5.71	5.77	3.49	3.60	
		2	6.28	6.24	6.30	3.66		
		3	6.85	6.82	6.88	3.70		
		4	7.01	6.98	7.04	3.66		
		5	7.59	7.56	7.62	3.51		
Aroclor-1260	2	1	9.10	9.07	9.13	3.58	3.63	
		2	9.35	9.32	9.38	3.72		
		3	9.76	9.73	9.79	3.88		
		4	10.49	10.46	10.52	3.62		
		5	10.87	10.84	10.90	3.35		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: P1100009.D

Analysis Method: 8082A | Date Collected: 08/25/2015 10:20

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 790(mL) | Date Analyzed: 08/30/2015 19:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.22	U	0.63	0.22
11104-28-2	Aroclor-1221	0.16	U	0.63	0.16
11141-16-5	Aroclor-1232	0.20	U	0.63	0.20
53469-21-9	Aroclor-1242	0.28	U	0.63	0.28
12672-29-6	Aroclor-1248	0.13	U	0.63	0.13
11097-69-1	Aroclor-1254	0.20	U	0.63	0.20
11096-82-5	Aroclor-1260	0.22	U	0.63	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	47		21-124
2051-24-3	DCB Decachlorobiphenyl	21		10-131

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 13:03 Calibration End Date: 08/23/2015 14:35 Calibration ID: 30249

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/4	P1100004.D
Level 2	STD01 240-194251/5	P1100005.D
Level 3	STD02 240-194251/6	P1100006.D
Level 4	STD05 240-194251/7	P1100007.D
Level 5	STD1 240-194251/8	P1100008.D
Level 6	STD2 240-194251/9	P1100009.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0271 0.0204	0.0251	0.0231	0.0233	0.0210	Lin1	0.0004	0.0206							0.9980		0.9900
PCB-1232 Peak 2	0.0197 0.0159	0.0202	0.0185	0.0186	0.0166	Lin1	0.0003	0.0163							0.9970		0.9900
PCB-1232 Peak 3	0.0406 0.0355	0.0388	0.0363	0.0383	0.0358	Lin1	0.0003	0.0357							0.9990		0.9900
PCB-1232 Peak 4	0.0167 0.0147	0.0160	0.0151	0.0170	0.0154	Lin1	0.0001	0.0151							0.9970		0.9900
PCB-1232 Peak 5	0.0133 0.0100	0.0130	0.0119	0.0115	0.0104	Lin1	0.0002	0.0101							0.9980		0.9900
PCB-1262 Peak 1	0.0509 0.0415	0.0474	0.0448	0.0461	0.0424	Lin1	0.0006	0.0419							0.9990		0.9900
PCB-1262 Peak 2	0.0720 0.0621	0.0681	0.0628	0.0668	0.0623	Lin1	0.0005	0.0623							0.9990		0.9900
PCB-1262 Peak 3	0.0701 0.0606	0.0659	0.0625	0.0648	0.0608	Lin1	0.0005	0.0607							0.9990		0.9900
PCB-1262 Peak 4	0.1279 0.1248	0.1240	0.1204	0.1250	0.1224	Lin1	0	0.1239							1.0000		0.9900
PCB-1262 Peak 5	0.0925 0.0860	0.0893	0.0853	0.0869	0.0848	Lin1	0.0003	0.0854							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 13:03 Calibration End Date: 08/23/2015 14:35 Calibration ID: 30249

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/4	P1100004.D
Level 2	STD01 240-194251/5	P1100005.D
Level 3	STD02 240-194251/6	P1100006.D
Level 4	STD05 240-194251/7	P1100007.D
Level 5	STD1 240-194251/8	P1100008.D
Level 6	STD2 240-194251/9	P1100009.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	2655461 77580162	4908221	9067696	21581143	40248747	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	1930012 60648088	3952915	7259208	17252701	31867952	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	3972848 135024559	7580215	14220820	35457669	68756022	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	1639720 56129870	3137715	5911148	15801653	29480744	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	1303623 38138145	2538340	4641916	10664032	19892168	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	4986418 158174338	9277872	17535417	42689699	81280317	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	7054682 236646750	13308679	24605331	61868550	119555185	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	6860501 230612617	12890349	24475153	60096065	116591923	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	12530416 475145734	24245256	47164510	115879935	234723880	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	9059042 327353909	17460611	33401336	80550755	162664653	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 14:53 Calibration End Date: 08/23/2015 16:06 Calibration ID: 30255

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/10	P1100010.D
Level 2	STD01 240-194251/11	P1100011.D
Level 3	STD02 240-194251/12	P1100012.D
Level 4	STD05 240-194251/13	P1100013.D
Level 5	STD1 240-194251/14	P1100014.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0199	0.0188	0.0161	0.0151	0.0140	Lin1	0.0004	0.0135							0.9980		0.9900
PCB-1242 Peak 2	0.0346	0.0347	0.0299	0.0283	0.0265	Lin1	0.0007	0.0255							0.9980		0.9900
PCB-1242 Peak 3	0.0722	0.0736	0.0647	0.0650	0.0628	Lin1	0.0008	0.0617							1.0000		0.9900
PCB-1242 Peak 4	0.0302	0.0299	0.0273	0.0265	0.0252	Lin1	0.0004	0.0245							0.9990		0.9900
PCB-1242 Peak 5	0.0268	0.0271	0.0220	0.0208	0.0195	Lin1	0.0006	0.0189							0.9980		0.9900
PCB-1268 Peak 1	0.1419	0.1384	0.1277	0.1319	0.1299	Lin1	0.0004	0.1311							1.0000		0.9900
PCB-1268 Peak 2	0.1373	0.1342	0.1248	0.1300	0.1267	Lin1	0.0005	0.1268							1.0000		0.9900
PCB-1268 Peak 3	0.1102	0.1075	0.1000	0.1040	0.1019	Lin1	0.0003	0.1024							1.0000		0.9900
PCB-1268 Peak 4	0.0508	0.0487	0.0448	0.0461	0.0439	Lin1	0.0004	0.0441							1.0000		0.9900
PCB-1268 Peak 5	0.3421	0.3383	0.3256	0.3573	0.3502	Lin1	-0.003	0.3641							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 14:53 Calibration End Date: 08/23/2015 16:06 Calibration ID: 30255

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/10	P1100010.D
Level 2	STD01 240-194251/11	P1100011.D
Level 3	STD02 240-194251/12	P1100012.D
Level 4	STD05 240-194251/13	P1100013.D
Level 5	STD1 240-194251/14	P1100014.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin1	1794274	3425083	6242567	14587969	27498170	0.0500	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	BNB	Lin1	3128788	6335299	11606883	27408320	51892744	0.0500	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	BNB	Lin1	6528539	13424573	25083743	62896968	123157163	0.0500	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	BNB	Lin1	2727419	5458010	10595575	25643603	49303020	0.0500	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	BNB	Lin1	2419531	4953566	8541414	20150234	38148613	0.0500	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	BNB	Lin1	12822020	25259023	49510075	127627422	254674313	0.0500	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	BNB	Lin1	12410013	24488619	48384641	125861674	248404978	0.0500	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	BNB	Lin1	9959980	19609909	38756275	100640122	199803108	0.0500	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	BNB	Lin1	4594334	8890777	17369123	44669060	86070959	0.0500	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	BNB	Lin1	30923767	61739555	126244779	345891092	686529084	0.0500	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 16:42 Calibration End Date: 08/23/2015 18:13 Calibration ID: 30261

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/16	P1100016.D
Level 2	STD01 240-194251/17	P1100017.D
Level 3	STD02 240-194251/18	P1100018.D
Level 4	STD05 240-194251/19	P1100019.D
Level 5	STD1 240-194251/20	P1100020.D
Level 6	STD2 240-194251/21	P1100021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0195 0.0149	0.0179	0.0171	0.0151	0.0152	Lin1	0.0003	0.0148							1.0000		0.9900
PCB-1248 Peak 2	0.0494 0.0437	0.0461	0.0433	0.0412	0.0429	Lin1	0.0002	0.0429							0.9990		0.9900
PCB-1248 Peak 3	0.0407 0.0331	0.0371	0.0345	0.0321	0.0330	Lin1	0.0004	0.0326							1.0000		0.9900
PCB-1248 Peak 4	0.0619 0.0423	0.0517	0.0440	0.0414	0.0419	Lin1	0.0009	0.0412							0.9990		0.9900
PCB-1248 Peak 5	0.0268 0.0226	0.0256	0.0237	0.0221	0.0225	Lin1	0.0002	0.0223							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton | Job No.: 240-54724-1 | Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 | GC Column: CLP-2 | ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 16:42 | Calibration End Date: 08/23/2015 18:13 | Calibration ID: 30261

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/16	P1100016.D
Level 2	STD01 240-194251/17	P1100017.D
Level 3	STD02 240-194251/18	P1100018.D
Level 4	STD05 240-194251/19	P1100019.D
Level 5	STD1 240-194251/20	P1100020.D
Level 6	STD2 240-194251/21	P1100021.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Lin1	1924518 54685543	3422838	6446857	15110408	27943222	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	BNB	Lin1	4867987 160436023	8818923	16347961	41274005	78893793	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	BNB	Lin1	4007104 121555982	7106580	13014637	32169897	60649289	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	BNB	Lin1	6093016 155415831	9897485	16603237	41469828	77179869	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	BNB	Lin1	2636292 83030808	4890908	8932244	22110608	41423137	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 18:31 Calibration End Date: 08/23/2015 20:03 Calibration ID: 30267

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/22	P1100022.D
Level 2	STD01 240-194251/23	P1100023.D
Level 3	STD02 240-194251/24	P1100024.D
Level 4	STD05 240-194251/25	P1100025.D
Level 5	STD1 240-194251/26	P1100026.D
Level 6	STD2 240-194251/27	P1100027.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0127 0.0092	0.0132	0.0113	0.0109	0.0105	Lin1	0.0003	0.0096							0.9940		0.9900
PCB-1221 Peak 2	0.0090 0.0061	0.0088	0.0076	0.0073	0.0069	Lin1	0.0002	0.0063							0.9940		0.9900
PCB-1221 Peak 3	0.0322 0.0230	0.0318	0.0272	0.0266	0.0258	Lin1	0.0006	0.0238							0.9960		0.9900
PCB-1254 Peak 1	0.0521 0.0343	0.0481	0.0400	0.0392	0.0379	Lin1	0.0011	0.0351							0.9970		0.9900
PCB-1254 Peak 2	0.0519 0.0408	0.0522	0.0455	0.0454	0.0450	Lin1	0.0007	0.0420							0.9970		0.9900
PCB-1254 Peak 3	0.0773 0.0641	0.0651	0.0689	0.0702	0.0705	Lin1	0.0005	0.0662							0.9970		0.9900
PCB-1254 Peak 4	0.0532 0.0450	0.0530	0.0485	0.0487	0.0491	Lin1	0.0005	0.0462							0.9980		0.9900
PCB-1254 Peak 5	0.0764 0.0617	0.0730	0.0637	0.0670	0.0675	Lin1	0.0008	0.0633							0.9980		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 18:31 Calibration End Date: 08/23/2015 20:03 Calibration ID: 30267

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/22	P1100022.D
Level 2	STD01 240-194251/23	P1100023.D
Level 3	STD02 240-194251/24	P1100024.D
Level 4	STD05 240-194251/25	P1100025.D
Level 5	STD1 240-194251/26	P1100026.D
Level 6	STD2 240-194251/27	P1100027.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin1	1214673 37982057	2417683	4536915	10484179	20508155	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	BNB	Lin1	855122 24864080	1618935	3069977	7033649	13493704	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	BNB	Lin1	3073365 94390117	5833251	10934409	25657173	50442196	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	BNB	Lin1	4963038 140802092	8832460	16048925	37848466	74076666	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	BNB	Lin1	4948450 167660618	9581811	18277081	43793394	87848111	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	BNB	Lin1	7373206 263412081	11949081	27678460	67703110	137671268	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	BNB	Lin1	5069178 184857804	9721756	19471735	46964859	95794540	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	BNB	Lin1	7284677 253475928	13402391	25585103	64682263	131744326	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 20:21 Calibration End Date: 08/23/2015 21:52 Calibration ID: 30273

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/28	P1100028.D
Level 2	STD01 240-194251/29	P1100029.D
Level 3	STD02 240-194251/30	P1100030.D
Level 4	STD05 240-194251/31	P1100031.D
Level 5	STD1 240-194251/32	P1100032.D
Level 6	STD2 240-194251/33	P1100033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0245 0.0177	0.0230	0.0190	0.0182	0.0167	Lin1	0.0004	0.0171							0.9990		0.9900
PCB-1016 Peak 2	0.0436 0.0330	0.0427	0.0357	0.0345	0.0317	Lin1	0.0007	0.0323							0.9990		0.9900
PCB-1016 Peak 3	0.0885 0.0814	0.0884	0.0781	0.0802	0.0763	Lin1	0.0004	0.0794							0.9990		0.9900
PCB-1016 Peak 4	0.0359 0.0319	0.0357	0.0302	0.0322	0.0301	Lin1	0.0002	0.0312							0.9990		0.9900
PCB-1016 Peak 5	0.0333 0.0244	0.0304	0.0260	0.0248	0.0234	Lin1	0.0005	0.0237							0.9990		0.9900
PCB-1260 Peak 1	0.0631 0.0508	0.0602	0.0512	0.0508	0.0476	Lin1	0.0007	0.0493							0.9990		0.9900
PCB-1260 Peak 2	0.0650 0.0555	0.0633	0.0554	0.0555	0.0525	Lin1	0.0006	0.0542							0.9990		0.9900
PCB-1260 Peak 3	0.0966 0.0844	0.0942	0.0817	0.0841	0.0795	Lin1	0.0007	0.0823							0.9990		0.9900
PCB-1260 Peak 4	0.1067 0.1027	0.1063	0.0969	0.0996	0.0966	Lin1	0.0002	0.1003							0.9990		0.9900
PCB-1260 Peak 5	0.0787 0.0713	0.0779	0.0698	0.0706	0.0678	Lin1	0.0005	0.0698							0.9990		0.9900
Tetrachloro-m-xylene	1.1661 1.1883	1.2290	1.0741	1.0865	1.0882	Lin1	0	1.1456							0.9970		0.9900
DCB Decachlorobiphenyl	0.9724 0.8163	0.9713	0.8406	0.7978	0.7812	Lin1	0.0005	0.7957							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 20:21 Calibration End Date: 08/23/2015 21:52 Calibration ID: 30273

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/28	P1100028.D
Level 2	STD01 240-194251/29	P1100029.D
Level 3	STD02 240-194251/30	P1100030.D
Level 4	STD05 240-194251/31	P1100031.D
Level 5	STD1 240-194251/32	P1100032.D
Level 6	STD2 240-194251/33	P1100033.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin1	2439855 69170874	4251252	7776654	18662739	34882430	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	BNB	Lin1	4342773 129408521	7900132	14620690	35291004	66123133	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	BNB	Lin1	8818212 318815870	16371059	32030758	82127169	159284601	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	BNB	Lin1	3580931 124982329	6607435	12401093	32975877	62901610	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	BNB	Lin1	3320547 95601452	5628156	10643355	25353044	48750154	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	BNB	Lin1	6283699 198970186	11140068	20987195	52038370	99286453	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	BNB	Lin1	6478425 217426709	11719349	22736695	56874409	109661061	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	BNB	Lin1	9629555 330384874	17437369	33493180	86095442	165933522	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	BNB	Lin1	10630299 402066500	19687987	39747049	101974262	201600823	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	BNB	Lin1	7846492 279221774	14415075	28622955	72312693	141426554	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	BNB	Lin1	5810619 232647703	11378041	22023128	55630072	113555725	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	BNB	Lin1	4845599 159823260	8992465	17235668	40849735	81523426	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-194251/39 Calibration Date: 08/23/2015 23:41

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100039.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0162		0.921	1.00	-7.9	20.0
PCB-1016 Peak 2	Lin1		0.0322		0.975	1.00	-2.5	20.0
PCB-1016 Peak 3	Lin1		0.0790		0.989	1.00	-1.1	20.0
PCB-1016 Peak 4	Lin1		0.0308		0.978	1.00	-2.2	20.0
PCB-1016 Peak 5	Lin1		0.0236		0.974	1.00	-2.6	20.0
PCB-1260 Peak 1	Lin1		0.0502		1.00	1.00	0.5	20.0
PCB-1260 Peak 2	Lin1		0.0560		1.02	1.00	2.3	20.0
PCB-1260 Peak 3	Lin1		0.0886		1.07	1.00	6.8	20.0
PCB-1260 Peak 4	Lin1		0.0980		0.975	1.00	-2.5	20.0
PCB-1260 Peak 5	Lin1		0.0700		0.996	1.00	-0.4	20.0
Tetrachloro-m-xylene	Lin1		1.039		0.0454	0.0500	-9.2	20.0
DCB Decachlorobiphenyl	Lin1		0.7733		0.0479	0.0500	-4.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-194251/39 Calibration Date: 08/23/2015 23:41

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100039.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.68	5.65	5.71
PCB-1016 Peak 2	6.21	6.18	6.24
PCB-1016 Peak 3	6.79	6.76	6.82
PCB-1016 Peak 4	6.95	6.92	6.98
PCB-1016 Peak 5	7.53	7.50	7.56
PCB-1260 Peak 1	9.04	9.01	9.07
PCB-1260 Peak 2	9.29	9.26	9.32
PCB-1260 Peak 3	9.70	9.67	9.73
PCB-1260 Peak 4	10.44	10.41	10.47
PCB-1260 Peak 5	10.83	10.80	10.86
Tetrachloro-m-xylene	4.99	4.96	5.02
DCB Decachlorobiphenyl	11.93	11.90	11.96

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/3 Calibration Date: 08/30/2015 17:26

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0171		0.474	0.500	-5.1	20.0
PCB-1016 Peak 2	Lin1		0.0323		0.477	0.500	-4.5	20.0
PCB-1016 Peak 3	Lin1		0.0753		0.469	0.500	-6.3	20.0
PCB-1016 Peak 4	Lin1		0.0298		0.470	0.500	-6.0	20.0
PCB-1016 Peak 5	Lin1		0.0234		0.471	0.500	-5.9	20.0
PCB-1260 Peak 1	Lin1		0.0474		0.466	0.500	-6.7	20.0
PCB-1260 Peak 2	Lin1		0.0540		0.488	0.500	-2.5	20.0
PCB-1260 Peak 3	Lin1		0.0813		0.486	0.500	-2.8	20.0
PCB-1260 Peak 4	Lin1		0.1006		0.500	0.500	-0.0	20.0
PCB-1260 Peak 5	Lin1		0.0651		0.460	0.500	-8.0	20.0
Tetrachloro-m-xylene	Lin1		1.023		0.0224	0.0250	-10.5	20.0
DCB Decachlorobiphenyl	Lin1		0.9696		0.0298	0.0250	19.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/3 Calibration Date: 08/30/2015 17:26

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100003.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.74	5.71	5.77
PCB-1016 Peak 2	6.27	6.24	6.30
PCB-1016 Peak 3	6.85	6.82	6.88
PCB-1016 Peak 4	7.01	6.98	7.04
PCB-1016 Peak 5	7.59	7.56	7.62
PCB-1260 Peak 1	9.10	9.07	9.13
PCB-1260 Peak 2	9.35	9.32	9.38
PCB-1260 Peak 3	9.76	9.73	9.79
PCB-1260 Peak 4	10.49	10.46	10.52
PCB-1260 Peak 5	10.87	10.84	10.90
Tetrachloro-m-xylene	5.05	5.02	5.08
DCB Decachlorobiphenyl	11.97	11.94	12.00

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/4 Calibration Date: 08/30/2015 17:44

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 13:03

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 14:35

Lab File ID: P1100004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0208		0.484	0.500	-3.2	20.0
PCB-1232 Peak 2	Lin1		0.0164		0.486	0.500	-2.8	20.0
PCB-1232 Peak 3	Lin1		0.0342		0.471	0.500	-5.9	20.0
PCB-1232 Peak 4	Lin1		0.0145		0.473	0.500	-5.4	20.0
PCB-1232 Peak 5	Lin1		0.0103		0.485	0.500	-3.0	20.0
PCB-1262 Peak 1	Lin1		0.0400		0.464	0.500	-7.2	20.0
PCB-1262 Peak 2	Lin1		0.0629		0.496	0.500	-0.7	20.0
PCB-1262 Peak 3	Lin1		0.0592		0.479	0.500	-4.2	20.0
PCB-1262 Peak 4	Lin1		0.1230		0.496	0.500	-0.8	20.0
PCB-1262 Peak 5	Lin1		0.0789		0.458	0.500	-8.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/4 Calibration Date: 08/30/2015 17:44

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 13:03

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 14:35

Lab File ID: P1100004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.74	5.71	5.77
PCB-1232 Peak 2	6.27	6.24	6.30
PCB-1232 Peak 3	6.85	6.82	6.88
PCB-1232 Peak 4	7.01	6.98	7.04
PCB-1232 Peak 5	7.59	7.56	7.62
PCB-1262 Peak 1	9.10	9.07	9.13
PCB-1262 Peak 2	9.87	9.84	9.90
PCB-1262 Peak 3	10.21	10.18	10.24
PCB-1262 Peak 4	10.49	10.46	10.52
PCB-1262 Peak 5	10.87	10.84	10.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/5 Calibration Date: 08/30/2015 18:02

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 14:53

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 16:06

Lab File ID: P1100005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0135		0.469	0.500	-6.2	20.0
PCB-1242 Peak 2	Lin1		0.0253		0.470	0.500	-5.9	20.0
PCB-1242 Peak 3	Lin1		0.0578		0.456	0.500	-8.7	20.0
PCB-1242 Peak 4	Lin1		0.0231		0.455	0.500	-9.0	20.0
PCB-1242 Peak 5	Lin1		0.0189		0.470	0.500	-6.0	20.0
PCB-1268 Peak 1	Lin1		0.1164		0.441	0.500	-11.8	20.0
PCB-1268 Peak 2	Lin1		0.1139		0.445	0.500	-10.9	20.0
PCB-1268 Peak 3	Lin1		0.1012		0.491	0.500	-1.8	20.0
PCB-1268 Peak 4	Lin1		0.0454		0.507	0.500	1.4	20.0
PCB-1268 Peak 5	Lin1		0.3555		0.495	0.500	-0.9	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/5 Calibration Date: 08/30/2015 18:02

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 14:53

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 16:06

Lab File ID: P1100005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.74	5.71	5.77
PCB-1242 Peak 2	6.27	6.24	6.30
PCB-1242 Peak 3	6.85	6.82	6.88
PCB-1242 Peak 4	7.01	6.98	7.04
PCB-1242 Peak 5	7.59	7.56	7.62
PCB-1268 Peak 1	10.87	10.84	10.90
PCB-1268 Peak 2	10.91	10.88	10.94
PCB-1268 Peak 3	11.16	11.13	11.19
PCB-1268 Peak 4	11.44	11.41	11.47
PCB-1268 Peak 5	11.74	11.71	11.77

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/6 Calibration Date: 08/30/2015 18:20

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 16:42

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 18:13

Lab File ID: P1100006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0140		0.455	0.500	-9.1	20.0
PCB-1248 Peak 2	Lin1		0.0384		0.442	0.500	-11.6	20.0
PCB-1248 Peak 3	Lin1		0.0300		0.449	0.500	-10.2	20.0
PCB-1248 Peak 4	Lin1		0.0386		0.445	0.500	-11.0	20.0
PCB-1248 Peak 5	Lin1		0.0209		0.458	0.500	-8.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/6 Calibration Date: 08/30/2015 18:20

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 16:42

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 18:13

Lab File ID: P1100006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	6.27	6.24	6.30
PCB-1248 Peak 2	6.84	6.81	6.87
PCB-1248 Peak 3	7.59	7.56	7.62
PCB-1248 Peak 4	8.10	8.07	8.13
PCB-1248 Peak 5	8.87	8.84	8.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/7 Calibration Date: 08/30/2015 18:39

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 18:31

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 20:03

Lab File ID: P1100007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0096		0.471	0.500	-5.8	20.0
PCB-1221 Peak 2	Lin1		0.0064		0.478	0.500	-4.4	20.0
PCB-1221 Peak 3	Lin1		0.0236		0.469	0.500	-6.2	20.0
PCB-1254 Peak 1	Lin1		0.0342		0.457	0.500	-8.6	20.0
PCB-1254 Peak 2	Lin1		0.0401		0.460	0.500	-8.0	20.0
PCB-1254 Peak 3	Lin1		0.0629		0.467	0.500	-6.6	20.0
PCB-1254 Peak 4	Lin1		0.0448		0.473	0.500	-5.4	20.0
PCB-1254 Peak 5	Lin1		0.0621		0.478	0.500	-4.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/7 Calibration Date: 08/30/2015 18:39

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 18:31

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 20:03

Lab File ID: P1100007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.48	5.45	5.51
PCB-1221 Peak 2	5.67	5.64	5.70
PCB-1221 Peak 3	5.74	5.71	5.77
PCB-1254 Peak 1	8.10	8.07	8.13
PCB-1254 Peak 2	8.33	8.30	8.36
PCB-1254 Peak 3	8.87	8.84	8.90
PCB-1254 Peak 4	9.14	9.11	9.17
PCB-1254 Peak 5	9.76	9.73	9.79

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195418/2-A

Matrix: Water | Lab File ID: P1100010.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 1000(mL) | Date Analyzed: 08/30/2015 19:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.17	U	0.50	0.17
11104-28-2	Aroclor-1221	0.13	U	0.50	0.13
11141-16-5	Aroclor-1232	0.16	U	0.50	0.16
53469-21-9	Aroclor-1242	0.22	U	0.50	0.22
12672-29-6	Aroclor-1248	0.10	U	0.50	0.10
11097-69-1	Aroclor-1254	0.16	U	0.50	0.16
11096-82-5	Aroclor-1260	0.17	U	0.50	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	58		21-124
2051-24-3	DCB Decachlorobiphenyl	76		10-131

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-195418/3-A

Matrix: Water | Lab File ID: P1100011.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 1000(mL) | Date Analyzed: 08/30/2015 19:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	3.60		0.50	0.17
11096-82-5	Aroclor-1260	3.63		0.50	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	62		21-124
2051-24-3	DCB Decachlorobiphenyl	64		10-131

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-194251/4 IC		08/23/2015 13:03	1		CLP-1 0.53(mm)
STD005 240-194251/4 IC		08/23/2015 13:03	1	P1100004.D	CLP-2 0.53(mm)
STD01 240-194251/5 IC		08/23/2015 13:22	1		CLP-1 0.53(mm)
STD01 240-194251/5 IC		08/23/2015 13:22	1	P1100005.D	CLP-2 0.53(mm)
STD02 240-194251/6 IC		08/23/2015 13:40	1		CLP-1 0.53(mm)
STD02 240-194251/6 IC		08/23/2015 13:40	1	P1100006.D	CLP-2 0.53(mm)
STD05 240-194251/7 IC		08/23/2015 13:58	1		CLP-1 0.53(mm)
STD05 240-194251/7 IC		08/23/2015 13:58	1	P1100007.D	CLP-2 0.53(mm)
STD1 240-194251/8 IC		08/23/2015 14:16	1		CLP-1 0.53(mm)
STD1 240-194251/8 IC		08/23/2015 14:16	1	P1100008.D	CLP-2 0.53(mm)
STD2 240-194251/9 IC		08/23/2015 14:35	1		CLP-1 0.53(mm)
STD2 240-194251/9 IC		08/23/2015 14:35	1	P1100009.D	CLP-2 0.53(mm)
STD005 240-194251/10 IC		08/23/2015 14:53	1		CLP-1 0.53(mm)
STD005 240-194251/10 IC		08/23/2015 14:53	1	P1100010.D	CLP-2 0.53(mm)
STD01 240-194251/11 IC		08/23/2015 15:11	1		CLP-1 0.53(mm)
STD01 240-194251/11 IC		08/23/2015 15:11	1	P1100011.D	CLP-2 0.53(mm)
STD02 240-194251/12 IC		08/23/2015 15:29	1		CLP-1 0.53(mm)
STD02 240-194251/12 IC		08/23/2015 15:29	1	P1100012.D	CLP-2 0.53(mm)
STD05 240-194251/13 IC		08/23/2015 15:47	1		CLP-1 0.53(mm)
STD05 240-194251/13 IC		08/23/2015 15:47	1	P1100013.D	CLP-2 0.53(mm)
STD1 240-194251/14 IC		08/23/2015 16:06	1		CLP-1 0.53(mm)
STD1 240-194251/14 IC		08/23/2015 16:06	1	P1100014.D	CLP-2 0.53(mm)
STD005 240-194251/16 IC		08/23/2015 16:42	1		CLP-1 0.53(mm)
STD005 240-194251/16 IC		08/23/2015 16:42	1	P1100016.D	CLP-2 0.53(mm)
STD01 240-194251/17 IC		08/23/2015 17:00	1		CLP-1 0.53(mm)
STD01 240-194251/17 IC		08/23/2015 17:00	1	P1100017.D	CLP-2 0.53(mm)
STD02 240-194251/18 IC		08/23/2015 17:19	1		CLP-1 0.53(mm)
STD02 240-194251/18 IC		08/23/2015 17:19	1	P1100018.D	CLP-2 0.53(mm)
STD05 240-194251/19 IC		08/23/2015 17:37	1		CLP-1 0.53(mm)
STD05 240-194251/19 IC		08/23/2015 17:37	1	P1100019.D	CLP-2 0.53(mm)
STD1 240-194251/20 IC		08/23/2015 17:55	1		CLP-1 0.53(mm)
STD1 240-194251/20 IC		08/23/2015 17:55	1	P1100020.D	CLP-2 0.53(mm)
STD2 240-194251/21 IC		08/23/2015 18:13	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD2 240-194251/21 IC		08/23/2015 18:13	1	P1100021.D	CLP-2 0.53(mm)
STD005 240-194251/22 IC		08/23/2015 18:31	1		CLP-1 0.53(mm)
STD005 240-194251/22 IC		08/23/2015 18:31	1	P1100022.D	CLP-2 0.53(mm)
STD01 240-194251/23 IC		08/23/2015 18:50	1		CLP-1 0.53(mm)
STD01 240-194251/23 IC		08/23/2015 18:50	1	P1100023.D	CLP-2 0.53(mm)
STD02 240-194251/24 IC		08/23/2015 19:08	1		CLP-1 0.53(mm)
STD02 240-194251/24 IC		08/23/2015 19:08	1	P1100024.D	CLP-2 0.53(mm)
STD05 240-194251/25 IC		08/23/2015 19:26	1		CLP-1 0.53(mm)
STD05 240-194251/25 IC		08/23/2015 19:26	1	P1100025.D	CLP-2 0.53(mm)
STD1 240-194251/26 IC		08/23/2015 19:44	1		CLP-1 0.53(mm)
STD1 240-194251/26 IC		08/23/2015 19:44	1	P1100026.D	CLP-2 0.53(mm)
STD2 240-194251/27 IC		08/23/2015 20:03	1		CLP-1 0.53(mm)
STD2 240-194251/27 IC		08/23/2015 20:03	1	P1100027.D	CLP-2 0.53(mm)
STD005 240-194251/28 IC		08/23/2015 20:21	1		CLP-1 0.53(mm)
STD005 240-194251/28 IC		08/23/2015 20:21	1	P1100028.D	CLP-2 0.53(mm)
STD01 240-194251/29 IC		08/23/2015 20:39	1		CLP-1 0.53(mm)
STD01 240-194251/29 IC		08/23/2015 20:39	1	P1100029.D	CLP-2 0.53(mm)
STD02 240-194251/30 IC		08/23/2015 20:57	1		CLP-1 0.53(mm)
STD02 240-194251/30 IC		08/23/2015 20:57	1	P1100030.D	CLP-2 0.53(mm)
STD05 240-194251/31 ICIS		08/23/2015 21:15	1		CLP-1 0.53(mm)
STD05 240-194251/31 ICIS		08/23/2015 21:15	1	P1100031.D	CLP-2 0.53(mm)
STD1 240-194251/32 IC		08/23/2015 21:34	1		CLP-1 0.53(mm)
STD1 240-194251/32 IC		08/23/2015 21:34	1	P1100032.D	CLP-2 0.53(mm)
STD2 240-194251/33 IC		08/23/2015 21:52	1		CLP-1 0.53(mm)
STD2 240-194251/33 IC		08/23/2015 21:52	1	P1100033.D	CLP-2 0.53(mm)
ICV 240-194251/34		08/23/2015 22:10	1		CLP-1 0.53(mm)
ICV 240-194251/34		08/23/2015 22:10	1		CLP-2 0.53(mm)
ICV 240-194251/35		08/23/2015 22:28	1		CLP-1 0.53(mm)
ICV 240-194251/35		08/23/2015 22:28	1		CLP-2 0.53(mm)
ICV 240-194251/36		08/23/2015 22:47	1		CLP-1 0.53(mm)
ICV 240-194251/36		08/23/2015 22:47	1		CLP-2 0.53(mm)
ICV 240-194251/37		08/23/2015 23:05	1		CLP-1 0.53(mm)
ICV 240-194251/37		08/23/2015 23:05	1		CLP-2 0.53(mm)
ICV 240-194251/38		08/23/2015 23:23	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-194251/38		08/23/2015 23:23	1		CLP-2 0.53(mm)
ICV 240-194251/39		08/23/2015 23:41	1		CLP-1 0.53(mm)
ICV 240-194251/39		08/23/2015 23:41	1	P1100039.D	CLP-2 0.53(mm)
ICV 240-194251/41		08/24/2015 00:18	1		CLP-1 0.53(mm)
ICV 240-194251/41		08/24/2015 00:18	1		CLP-2 0.53(mm)
ICV 240-194251/40		08/24/2015 23:59	1		CLP-1 0.53(mm)
ICV 240-194251/40		08/24/2015 23:59	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/30/2015 17:26

Analysis Batch Number: 195464 End Date: 08/30/2015 19:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-195464/3 CCVIS		08/30/2015 17:26	1		CLP-1 0.53(mm)
CCV 240-195464/3 CCVIS		08/30/2015 17:26	1	P1100003.D	CLP-2 0.53(mm)
CCV 240-195464/4		08/30/2015 17:44	1		CLP-1 0.53(mm)
CCV 240-195464/4		08/30/2015 17:44	1	P1100004.D	CLP-2 0.53(mm)
CCV 240-195464/5		08/30/2015 18:02	1		CLP-1 0.53(mm)
CCV 240-195464/5		08/30/2015 18:02	1	P1100005.D	CLP-2 0.53(mm)
CCV 240-195464/6		08/30/2015 18:20	1		CLP-1 0.53(mm)
CCV 240-195464/6		08/30/2015 18:20	1	P1100006.D	CLP-2 0.53(mm)
CCV 240-195464/7		08/30/2015 18:39	1		CLP-1 0.53(mm)
CCV 240-195464/7		08/30/2015 18:39	1	P1100007.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:15	1		CLP-1 0.53(mm)
240-54724-11	WC-DFRAC-082515	08/30/2015 19:15	1	P1100009.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:33	1		CLP-1 0.53(mm)
MB 240-195418/2-A		08/30/2015 19:33	1	P1100010.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:51	1		CLP-1 0.53(mm)
LCS 240-195418/3-A		08/30/2015 19:51	1	P1100011.D	CLP-2 0.53(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195418 Batch Start Date: 08/29/15 11:10 Batch Analyst: Scott, Caitlin

Batch Method: 3520C Batch End Date: 08/30/15 11:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	EX10PPMSPK 00017	ex2/.2SURRW 00059	
240-54724-F-11	WC-DFRAC-082515	3520C, 8082A	T	790 mL	5 mL	6		1 mL	
MB 240-195418/2		3520C, 8082A		1000 mL	5 mL	7		1 mL	
LCS 240-195418/3		3520C, 8082A		1000 mL	5 mL	7	0.5 mL	1 mL	

Batch Notes	
Acid used for Clean Up Reagent	2050207
Exchange Solvent Lot #	2147438
Prep Solvent Lot #	2150149

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG No.:

Project: MRC Soil Remedy Block D Area F

Client Sample ID	Lab Sample ID
WC-DFRAC-082515	240-54724-11

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: WC-DFRAC-082515 Lab Sample ID: 240-54724-11

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG ID.:

Matrix: Water Date Sampled: 08/25/2015 10:20

Reporting Basis: WET Date Received: 08/26/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.0029	0.50	0.0029	mg/L	U		1	6010B
7440-39-3	Barium	0.016	10	0.0010	mg/L	J	B	1	6010B
7440-43-9	Cadmium	0.00039	0.10	0.00014	mg/L	J	B	1	6010B
7440-47-3	Chromium	0.0088	0.50	0.00055	mg/L	J	B	1	6010B
7439-92-1	Lead	0.0053	0.50	0.0019	mg/L	J		1	6010B
7782-49-2	Selenium	0.0040	0.25	0.0040	mg/L	U		1	6010B
7440-22-4	Silver	0.00092	0.50	0.00092	mg/L	U		1	6010B
7439-97-6	Mercury	0.000090	0.0020	0.000090	mg/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

ICV Source: MT6500ICV_00026 Concentration Units: ug/L

CCV Source: MTICPCCV_00054

Analyte	ICV 240-195529/4 08/31/2015 06:16				CCV 240-195529/18 08/31/2015 07:14				CCV 240-195529/25 08/31/2015 07:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	385	J	375	103	524		500	105	501		500	100
Barium	1500	J	1500	100	2070	J	2000	104	1990	J	2000	100
Cadmium	388		375	104	520		500	104	498		500	100
Chromium	1500		1500	100	2030		2000	102	1970		2000	98
Lead	377	J	375	101	496	J	500	99	480	J	500	96
Selenium	389		375	104	527		500	105	500		500	100
Silver	771		750	103	1050		1000	105	1010		1000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

ICV Source: MTHgStd_00016 Concentration Units: ug/L

CCV Source: MTHGCALW_00994

Analyte	ICV 240-195602/7-A 08/31/2015 11:25				CCV 240-195602/10-A 08/31/2015 12:02				CCV 240-195602/10-A 08/31/2015 12:16			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.11		5.00	102	5.36		5.00	107	5.31		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Method: 6010B Instrument ID: I12

Lab Sample ID: CRI 240-195529/6 Concentration Units: ug/L

CRQL Check Standard Source: ICPCRIW_00014

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	15.0	15.5	J	104	
Barium	10.0	10.4	J	104	
Cadmium	5.00	5.27	J	105	
Chromium	5.00	5.30	J	106	
Lead	10.0	10.5	J	105	
Selenium	20.0	18.2	J	91	
Silver	5.00	4.84	J	97	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-195602/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00994

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.153	J	77	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-195529/5 08/31/2015 06:20		CCB 240-195529/19 08/31/2015 07:17		CCB 240-195529/26 08/31/2015 07:46			
		Found	C	Found	C	Found	C	Found	C
Arsenic	500	2.9	U	2.9	U	2.9	U		
Barium	10000	1.0	U	1.0	U	1.0	U		
Cadmium	100	0.14	U	0.14	U	0.14	U		
Chromium	500	0.55	U	0.55	U	0.55	U		
Lead	500	1.9	U	1.9	U	1.9	U		
Selenium	250	4.0	U	4.0	U	4.0	U		
Silver	500	0.92	U	0.92	U	0.92	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-195602/8-A 08/31/2015 11:26		CCB 240-195602/11-A 08/31/2015 12:03		CCB 240-195602/11-A 08/31/2015 12:17			
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.090	U	0.090	U	0.090	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-195294/2-A

Instrument Code: I12 Batch No.: 195529

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0029	U		6010B
7440-39-3	Barium	0.0010	U		6010B
7440-43-9	Cadmium	0.000232	J		6010B
7440-47-3	Chromium	0.00055	U		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0040	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-195274/1-B

Instrument Code: I12 Batch No.: 195529

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0029	U		6010B
7440-39-3	Barium	0.00260	J		6010B
7440-43-9	Cadmium	0.00014	U		6010B
7440-47-3	Chromium	0.00127	J		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0040	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-195365/2-A

Instrument Code: H1 Batch No.: 195593

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.000090	U		7470A

FORM III-IN

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-195274/1-D

Instrument Code: H1 Batch No.: 195593

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.000090	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICSA 240-195529/8 Instrument ID: I12

Lab File ID: I12083115A.asc ICS Source: MTTRICSAW_00027

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-3.40**	
Barium		**0.133**	
Cadmium		**0.561**	
Chromium		**2.89**	
Lead		**-0.0321**	
Selenium		**4.02**	
Silver		**-1.53**	
Aluminum	*500000*	*512360*	*102*
Antimony		*-2.61*	
Beryllium		*0.317*	
Boron		*2.36*	
Calcium	*500000*	*475220*	*95*
Cobalt		*-5.15*	
Copper		*1.63*	
Iron	*200000*	*190140*	*95*
Lithium		*5.92*	
Magnesium	*500000*	*505880*	*101*
Manganese		*-0.238*	
Molybdenum		*-2.05*	
Nickel		*0.758*	
Potassium		*42.5*	
Silicon		*14.0*	
Sodium		*141*	
Strontium		*9.71*	
Thallium		*-4.48*	
Tin		*3.94*	
Titanium		*-1.47*	
Vanadium		*2.93*	
Zinc		*0.731*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICSAB 240-195529/9 Instrument ID: I12

Lab File ID: I12083115A.asc ICS Source: MTICPICSABW_00008

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1000**	**1017**	**102**
Barium	**500**	**504**	**101**
Cadmium	**1000**	**1036**	**104**
Chromium	**500**	**484**	**97**
Lead	**1000**	**911**	**91**
Selenium	**1000**	**1017**	**102**
Silver	**1000**	**1088**	**109**
Aluminum	*500000*	*516440*	*103*
Antimony	*1000*	*1028*	*103*
Beryllium	*500*	*484*	*97*
Boron	*500*	*518*	*104*
Calcium	*500000*	*485170*	*97*
Cobalt	*500*	*486*	*97*
Copper	*500*	*544*	*109*
Iron	*200000*	*192210*	*96*
Lithium	*500*	*543*	*109*
Magnesium	*500000*	*502700*	*101*
Manganese	*500*	*494*	*99*
Molybdenum	*1000*	*966*	*97*
Nickel	*1000*	*970*	*97*
Potassium	*10000*	*10444*	*104*
Silicon	*10000*	*9978*	*100*
Sodium	*10000*	*10615*	*106*
Strontium	*1500*	*1450*	*97*
Thallium	*1000*	*953*	*95*
Tin	*500*	*504*	*101*
Titanium	*500*	*507*	*101*
Vanadium	*500*	*491*	*98*
Zinc	*1000*	*977*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: Lab ID: 240-54711-A-4-L MS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	SSR C		Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.00543		0.00021	J	0.00500	104	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-54711-A-4-M MSD ^2

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.0104		0.0100	102	80-120	63	20	F2	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-195294/3-A

Lab Name: TestAmerica Canton Job No.: 240-54724-1

Sample Matrix: Water LCS Source: MTICP1_00043

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	2.00	2.07		104	50	150		6010B
Barium	2.00	2.03	J	101	50	150		6010B
Cadmium	0.0500	0.0525	J	105	50	150		6010B
Chromium	0.200	0.205	J	103	50	150		6010B
Lead	0.500	0.501		100	50	150		6010B
Selenium	2.00	2.09		105	50	150		6010B
Silver	0.0500	0.0529	J	106	50	150		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-195365/3-A

Lab Name: TestAmerica Canton Job No.: 240-54724-1

Sample Matrix: Water LCS Source: MTHGCALW_00993

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00500	0.00525		105	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B MDL Date: 09/09/2014 14:34

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.5	0.0029
Barium	493.409	10	0.001
Cadmium	226.502	0.1	0.00014
Chromium	267.716	0.5	0.00055
Lead	220.353	0.5	0.0019
Selenium	196.026	0.25	0.004
Silver	328.068	0.5	0.00092

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B XMDL Date: 09/09/2014 14:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Arsenic	189.042	500	2.9
Barium	493.409	10000	1
Cadmium	226.502	100	0.14
Chromium	267.716	500	0.55
Lead	220.353	500	1.9
Selenium	196.026	250	4
Silver	328.068	500	0.92

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 09/17/2014 14:10

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00009

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 09/17/2014 14:11

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Mercury	253.7	2	0.00009

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 07/28/2015

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.008918				0.048658	
Antimony		-0.000075			0.000057			-0.000049						0.001495	
Arsenic		0.000027			-0.000415	0.001072			-0.000355	0.002123					
Beryllium														0.000099	
Cadmium			0.013144					0.000006							
Cobalt													0.002135		
Copper				0.000018	0.000115			0.000004							
Lead		-0.00009					0.000101	0.000049			0.000131	0.000046			
Lithium				0.000011											
Nickel					0.000518			0.000057							
Selenium		-0.000005							0.000338						
Thallium					0.002805				0.000571				-0.001081	-0.000275	
Vanadium								0.000041							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-54724-1

SDG No.:

Instrument ID: I12 Date: 07/28/2015 11:56

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		5000	6010B
Barium		25000	6010B
Cadmium		2000	6010B
Chromium		20000	6010B
Lead		15000	6010B
Selenium		10000	6010B
Silver		2000	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-54724-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-195274/1-B	08/28/2015 09:36	195294		50	50
MB 240-195294/2-A	08/28/2015 09:36	195294		50	50
LCS 240-195294/3-A	08/28/2015 09:36	195294		50	50
240-54724-11	08/28/2015 09:36	195294		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-195274/1-D	08/28/2015 14:00	195365		50	50
MB 240-195365/2-A	08/28/2015 14:00	195365		50	50
LCS 240-195365/3-A	08/28/2015 14:00	195365		50	50
240-54711-A-4-L MS	08/28/2015 14:00	195365		50	50
240-54711-A-4-M MSD ^2	08/28/2015 14:00	195365		50	50
240-54724-11	08/28/2015 14:00	195365		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 08/31/2015 06:04 End Date: 08/31/2015 07:46

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ICIS 240-195529/1	1		06:04	X	X	X	X	X	X	X													
CALSTD 240-195529/2 IC			06:08	X	X	X	X	X	X	X													
CALSTD 240-195529/3 IC			06:12	X	X	X	X	X	X	X													
ICV 240-195529/4	1		06:16	X	X	X	X	X	X	X													
ICB 240-195529/5	1		06:20	X	X	X	X	X	X	X													
CRI 240-195529/6	1		06:24	X	X	X	X	X	X	X													
ZZZZZZ			06:28																				
ICSA 240-195529/8	1		06:32	X	X	X	X	X	X	X													
ICSAB 240-195529/9	1		06:36	X	X	X	X	X	X	X													
CCV 240-195529/10			06:40																				
CCB 240-195529/11			06:44																				
ZZZZZZ			06:48																				
ZZZZZZ			06:52																				
ZZZZZZ			06:56																				
ZZZZZZ			07:00																				
ZZZZZZ			07:05																				
ZZZZZZ			07:09																				
CCV 240-195529/18	1		07:14	X	X	X	X	X	X	X													
CCB 240-195529/19	1		07:17	X	X	X	X	X	X	X													
LB 240-195274/1-B	1	P	07:22	X	X	X	X	X	X	X													
MB 240-195294/2-A	1	T	07:26	X	X	X	X	X	X	X													
LCS 240-195294/3-A	1	T	07:30	X	X	X	X	X	X	X													
240-54724-11	1	P	07:34	X	X	X	X	X	X	X													
ZZZZZZ			07:38																				
CCV 240-195529/25	1		07:42	X	X	X	X	X	X	X													
CCB 240-195529/26	1		07:46	X	X	X	X	X	X	X													

Prep Types

P = TCLP

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 08/31/2015 11:14 End Date: 08/31/2015 12:17

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
IC 240-195602/1-A			11:14	X																			
IC 240-195602/2-A			11:16	X																			
IC 240-195602/3-A			11:17	X																			
IC 240-195602/4-A			11:19	X																			
IC 240-195602/5-A			11:20	X																			
IC 240-195602/6-A			11:22	X																			
ICV 240-195602/7-A	1		11:25	X																			
ICB 240-195602/8-A	1		11:26	X																			
CRA 240-195602/9-A	1		11:28	X																			
CCV 240-195602/10-A			11:39																				
CCB 240-195602/11-A			11:40																				
ZZZZZZ			11:41																				
ZZZZZZ			11:43																				
ZZZZZZ			11:44																				
ZZZZZZ			11:46																				
ZZZZZZ			11:47																				
ZZZZZZ			11:49																				
ZZZZZZ			11:51																				
CCV 240-195602/10-A			11:55																				
CCV 240-195602/10-A	1		12:02	X																			
CCB 240-195602/11-A	1		12:03	X																			
LB 240-195274/1-D	1	P	12:05	X																			
MB 240-195365/2-A	1	T	12:06	X																			
LCS 240-195365/3-A	1	T	12:08	X																			
ZZZZZZ			12:09																				
240-54711-A-4-L MS	1	P	12:11	X																			
240-54711-A-4-M MSD ^2	2	P	12:13	X																			
240-54724-11	1	P	12:14	X																			
CCV 240-195602/10-A	1		12:16	X																			
CCB 240-195602/11-A	1		12:17	X																			

Prep Types

P = TCLP

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195274 Batch Start Date: 08/27/15 17:40 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 08/28/15 09:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00006	EXTCLPBUFF1 00595	EXTCLPFILTERS 00027	EXTCLPHCLW 00046	AnalysisComment	
LB 240-195274/1		1311, 3010A, 6010B		1 mL	1 mL	1	1 mL	Buffer 1	
240-54724-F-11	WC-DFRAC-082515	1311, 3010A, 6010B	P	1 mL	1 mL	1	1 mL		

Batch Notes	
Tumbler Rotations per Minute	E, B, C, J = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195294 Batch Start Date: 08/28/15 09:36 Batch Analyst: Dillon, William K

Batch Method: 3010A Batch End Date: 08/28/15 17:36

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MT1to1HCL 00056	MTAGSPIKEW 00051	MTICP1 00043	MTICP2A 00053
LB 240-195274/1-A		3010A, 6010B		50 mL	50 mL	5 mL			
MB 240-195294/2		3010A, 6010B		50 mL	50 mL	5 mL			
LCS 240-195294/3		3010A, 6010B		50 mL	50 mL	5 mL	1 mL	1 mL	1 mL
240-54724-F-11-A	WC-DFRAC-082515	3010A, 6010B	P	50 mL	50 mL	5 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00065
LB 240-195274/1-A		3010A, 6010B		3 mL
MB 240-195294/2		3010A, 6010B		3 mL
LCS 240-195294/3		3010A, 6010B		3 mL
240-54724-F-11-A	WC-DFRAC-082515	3010A, 6010B	P	3 mL

Batch Notes	
Filter Paper Lot Number	9605292
Hot Block ID number	HB0
Pipette ID	MP1-MP3-MP5
Digestion Tube/Cup Lot #	1501179

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195274 Batch Start Date: 08/27/15 17:40 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 08/28/15 09:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00006	EXTCLPBUFF1 00595	EXTCLPFILTERS 00027	EXTCLPHCLW 00046	AnalysisComment	
LB 240-195274/1		1311, 7470A, 7470A		1 mL	1 mL	1	1 mL	Buffer 1	
240-54724-F-11	WC-DFRAC-082515	1311, 7470A, 7470A	P	1 mL	1 mL	1	1 mL		

Batch Notes	
Tumbler Rotations per Minute	E, B, C, J = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195365 Batch Start Date: 08/28/15 14:00 Batch Analyst: Dillon, William K

Batch Method: 7470A Batch End Date: 08/28/15 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00030	MTH2S04 00024	MTHGCALW 00993	MTKMN04W 00093
LB 240-195274/1-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
MB 240-195365/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-195365/3		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-54711-A-4-D MS		7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-54711-A-4-D MSD		7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	5 mL	7.5 mL
240-54724-F-11-A	WC-DFRAC-082515	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00065					
LB 240-195274/1-A		7470A, 7470A		1.25 mL					
MB 240-195365/2		7470A, 7470A		1.25 mL					
LCS 240-195365/3		7470A, 7470A		1.25 mL					
240-54711-A-4-D MS		7470A, 7470A	P	1.25 mL					
240-54711-A-4-D MSD		7470A, 7470A	P	1.25 mL					
240-54724-F-11-A	WC-DFRAC-082515	7470A, 7470A	P	1.25 mL					

Batch Notes	
Batch Comment	Takeout temp within range
Hot Block ID number	C2
Pipette ID	MP1-MP2
Digestion Tube/Cup Lot #	1501179

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195602 Batch Start Date: 08/31/15 07:40 Batch Analyst: Lecorchick, Willis A

Batch Method: 7470A Batch End Date: 08/31/15 09:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00030	MTH2S04 00024	MTHGCALW 00994	MTHgStd 00016
ICV 240-195602/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		0.25 mL
ICB 240-195602/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-195602/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-195602/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-195602/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00094	MTTMHNO3 00065				
ICV 240-195602/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-195602/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-195602/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-195602/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-195602/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	MP1-MP2
Digestion Tube/Cup Lot #	1501179

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG No.:

Project: MRC Soil Remedy Block D Area F

Client Sample ID	Lab Sample ID
D-VB-F-1-2	240-54724-1
D-VB-F-2-2	240-54724-2
D-VB-F-3-2	240-54724-3
D-VB-F-4-2	240-54724-4
D-VB-F-5-2	240-54724-5
D-VB-F-7-2	240-54724-6
D-VB-F-8-2	240-54724-7
D-VB-F-9-2	240-54724-8
D-VS-F-1-1	240-54724-9
D-VS-F-2-1	240-54724-10
WC-DFRAC-082515	240-54724-11
D-VS-D-1-1	240-54724-13
D-VS-D-2-1	240-54724-14
D-VS-D-3-1	240-54724-15
D-VS-D-4-1	240-54724-16
D-VB-D-1-2	240-54724-17
D-VB-D-2-2	240-54724-18
D-DUP07-082515	240-54724-19

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-DFRAC-082515 Lab Sample ID: 240-54724-11

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG ID.:

Matrix: Water Date Sampled: 08/25/2015 10:20

Reporting Basis: WET Date Received: 08/26/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Flashpoint	>200	1.00	1.00	Degrees F			1	1010A

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 195256 Date: 08/28/2015 06:12								
1010A		240-54741-A-4	Flashpoint	>200	Degrees F			
1010A		240-54741-A-4 DU	Flashpoint	>200	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 195256 Date: 08/28/2015 05:45											
						LCS Source: WCP-XYLENE_00017					
1010A	LCS 240-195256/1	Flashpoint	83.00		Degrees F	81.0	102	97-103			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A RL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A XRL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: WHITEY Method: 1010A

Start Date: 08/28/2015 05:45 End Date: 08/28/2015 11:48

Lab Sample ID	D / F	Type	Time	Analytes																				
				FP																				
LCS 240-195256/1	1	T	05:45	X																				
240-54741-A-4 DU	1	T	06:12	X																				
ZZZZZZ			06:40																					
ZZZZZZ			07:08																					
ZZZZZZ			07:36																					
ZZZZZZ			08:04																					
240-54724-11	1	T	08:32	X																				
ZZZZZZ			09:00																					
ZZZZZZ			09:28																					
ZZZZZZ			09:56																					
ZZZZZZ			10:24																					
ZZZZZZ			10:52																					
ZZZZZZ			11:20																					
ZZZZZZ			11:48																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/26/2015 16:37 End Date: 08/26/2015 17:01

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			16:37																					
ZZZZZZ			16:37																					
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ZZZZZZ			16:37																					
240-54724-1 DU	1	T	16:37	X	X																			
240-54724-1	1	T	16:37	X	X																			
240-54724-2	1	T	16:37	X	X																			
240-54724-3	1	T	16:37	X	X																			
240-54724-4	1	T	16:37	X	X																			
240-54724-5	1	T	17:01	X	X																			
240-54724-6	1	T	17:01	X	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/26/2015 16:37 End Date: 08/26/2015 17:01

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
240-54724-7	1	T	17:01	X	X																		
240-54724-8	1	T	17:01	X	X																		
240-54724-9	1	T	17:01	X	X																		
240-54724-10 DU	1	T	17:01	X	X																		
240-54724-10	1	T	17:01	X	X																		
240-54724-13	1	T	17:01	X	X																		
240-54724-14	1	T	17:01	X	X																		
240-54724-15	1	T	17:01	X	X																		
240-54724-16	1	T	17:01	X	X																		
240-54724-17	1	T	17:01	X	X																		
240-54724-18	1	T	17:01	X	X																		
240-54724-19	1	T	17:01	X	X																		
ZZZZZZ			17:01																				
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ZZZZZZ			17:01																				

Prep Types
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 195256 Batch Start Date: 08/28/15 05:45 Batch Analyst: Harshman, Tom

Batch Method: 1010A Batch End Date: 08/28/15 12:16

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialTemp	WCP-XYLENE 00017			
LCS 240-195256/1		1010A		70 mL	70 Degrees F	70 mL			
240-54741-A-4 DU		1010A	T	70 mL	60 Degrees F				
240-54724-D-11	WC-DFRAC-082515	1010A	T	70 mL	58 Degrees F				

Batch Notes	
Equipment ID	whitey

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 194999 Batch Start Date: 08/26/15 16:37 Batch Analyst: Burns, Jill

Batch Method: Moisture Batch End Date: 08/27/15 09:21

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-54724-A-1 DU	D-VB-F-1-2	Moisture	T	4.2475 g	7.5282 g	7.0933 g			
240-54724-A-1	D-VB-F-1-2	Moisture	T	4.2475 g	6.9179 g	6.5536 g			
240-54724-A-2	D-VB-F-2-2	Moisture	T	4.2475 g	11.2984 g	10.4796 g			
240-54724-A-3	D-VB-F-3-2	Moisture	T	4.2475 g	9.6921 g	8.9244 g			
240-54724-A-4	D-VB-F-4-2	Moisture	T	4.2475 g	9.1968 g	8.3299 g			
240-54724-A-5	D-VB-F-5-2	Moisture	T	4.2475 g	15.4925 g	13.7464 g			
240-54724-A-6	D-VB-F-7-2	Moisture	T	4.2475 g	9.0078 g	8.4319 g			
240-54724-A-7	D-VB-F-8-2	Moisture	T	4.2475 g	15.8421 g	14.1580 g			
240-54724-A-8	D-VB-F-9-2	Moisture	T	4.2475 g	20.8304 g	18.1079 g			
240-54724-A-9	D-VS-F-1-1	Moisture	T	4.2475 g	11.0006 g	9.7682 g			
240-54724-A-10 DU	D-VS-F-2-1	Moisture	T	4.2475 g	7.3771 g	6.9536 g			
240-54724-A-10	D-VS-F-2-1	Moisture	T	4.2475 g	7.3040 g	6.8961 g			
240-54724-A-13	D-VS-D-1-1	Moisture	T	4.2475 g	11.6913 g	10.5080 g			
240-54724-A-14	D-VS-D-2-1	Moisture	T	4.2475 g	10.0046 g	9.1181 g			
240-54724-A-15	D-VS-D-3-1	Moisture	T	4.2475 g	15.0394 g	12.7065 g			
240-54724-A-16	D-VS-D-4-1	Moisture	T	4.2475 g	9.8731 g	9.0630 g			
240-54724-A-17	D-VB-D-1-2	Moisture	T	4.2475 g	13.0620 g	11.4212 g			
240-54724-A-18	D-VB-D-2-2	Moisture	T	4.2475 g	9.7230 g	8.9331 g			
240-54724-A-19	D-DUP07-082515	Moisture	T	4.2475 g	12.6331 g	11.0668 g			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Batch Number: 194999 Batch Start Date: 08/26/15 16:37 Batch Analyst: Burns, Jill

Batch Method: Moisture Batch End Date: 08/27/15 09:21

Batch Notes	
Balance ID	B047 No Unit
Date and Time Samples out of Desiccator	08/27/15 09:00
Date samples were placed in the oven	8/26/15
Oven Temp when samples are put in oven	103.5 Degrees C
Time samples were place in the oven	17:20
Date samples were removed from oven	8/27/15
Oven Temp when samples removed from oven	103.3 Degrees C
Time Samples were removed from oven	05:15
Oven ID	002
ID number of the thermometer	Tempguard Box-C #6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

1,8/C2,8

Chain of Custody Record

#34 016181

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FedEx	1 of 2 COCs
Address: 20251 CENTURY BLVD. STE. 200	Analysis Turnaround Time			Sampler: MULLIS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK O AREA F				
P O # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH (8270D)	VOCs	PCBs	TCLP Metals	Ignitability	Sample Specific Notes:
O-VB-F-1-2	8/25/15	1030	C	SOIL	1			X					* O-VB AND O-VS
O-VB-F-2-2		1032						X					SAMPLES 3 DAY TAT *
O-VB-F-3-2		1034						X					
O-VB-F-4-2		1036						X					
O-VB-F-5-2		1038						X					
O-VB-F-7-2		1040						X					
O-VB-F-8-2		1042						X					
O-VB-F-9-2		1044						X					
O-VS-F-1-1		1046						X					
O-VS-F-2-1		1048						X					
WC-OFRAC-082515		1020		AQ	8				X	X	X	X	* 5 DAY TAT
TB-082515		—		AQ	2				X				

Page 420 of 422

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA F (3 DAY TAT)
* WC-OFRAC = WASTE CHARACTERIZATION FOR STORM WATER IN BLOCK O FRAC TANK (5 DAY TAT)

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TETRA TECH	8/25/15 1630		TestAmerica	8/25/15 1700
Relinquished by:	TestAmerica	8/25/15 1730	Received by:	TA	8/26/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

4.8 | 2.8
JB

Chain of Custody Record

#35
016180

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBITT	Site Contact: J. MULLIS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FedEx	2 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler: MULLIS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3005	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY	☐ 1 week			Job / SDG No.:
Site: MRC BLOCK O AREA D	☐ 2 days			
P O # 112IC07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
O-VS-O-1-1	8/25/15	1420	C	SOIL	1			X	
O-VS-O-2-1		1422						X	
O-VS-O-3-1		1424						X	
O-VS-O-4-1		1426						X	
O-VB-O-1-2		1428						X	
O-VB-O-2-2		1430						X	
O-DUP07-082515								X	
				8/25/15					

Page 421 of 422

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA D

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TETRA TECH	8/25/15 1630		TestAmerica	8/25/15 1700
Relinquished by:	TestAmerica	8/25/15 1730	Alex Cole	TA	8/26/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 54724
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 8/26/15 Opened on 8/26/15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~ ☐ See Multiple Cooler Form
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-59150-1

Job Description: LM MRC Block D Waste Characterization

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Mr. Scott Nesbit



Approved for release.
John McFadden
Project Manager I
12/23/2015 3:32 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
12/23/2015

cc: Tony Apanavage
Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LM MRC Block D Waste Characterization

Report Number: 240-59150-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 9071B Oil and Grease analysis was performed at the TestAmerica Nashville Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The sample was received on 12/16/2015 9:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

Client forwarded an updated list of analyses on 12/17/15. Sample is to be analyzed for VOCs, SVOCs, RCRA Metals, PCBs, EOX, Paint Filter, HEM, TPH-GRO, TPH-DRO, TCLP VOCs, TCLP SVOCs, TCLP Metals, TCLP Pesticides and TCLP Herbicides.

TCLP VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample D-SD-WC-1 (240-59150-1) was analyzed for TCLP volatile organic compounds (GCMS) in accordance with EPA SW-846 Methods 1311/8260B. The sample was leached on 12/16/2015 and analyzed on 12/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample D-SD-WC-1 (240-59150-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The sample was prepared on 12/16/2015 and analyzed on 12/18/2015.

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, Acetone, Methylene Chloride and Naphthalene were detected in method blank MB 240-211550/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The continuing calibration verification (CCV) analyzed in batch 240-211550 was outside the method criteria for the following analyte: Dichloro-difluoromethane. An MRL standard at or below the reporting limit (RL) was analyzed with the affected samples: D-SD-WC-1 (240-59150-1), (CCV 240-211550/4), (CCVIS 240-211550/3), (LCS 240-211550/5), (LCS 240-211550/7), and (MB 240-211550/6), and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 240-211081 and analytical batch 240-211550 on this sample: D-SD-WC-1 (240-59150-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)
Sample D-SD-WC-1 (240-59150-1) was analyzed for TCLP semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Methods 1311/8270C. The sample was leached on 12/16/2015, prepared on 12/17/2015 and analyzed on 12/20/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)
Sample D-SD-WC-1 (240-59150-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The sample was prepared on 12/18/2015 and analyzed on 12/22/2015.

Isophorone was detected in method blank MB 240-211448/17-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample D-SD-WC-1 (240-59150-1)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GASOLINE RANGE ORGANICS
Sample D-SD-WC-1 (240-59150-1) was analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The sample was prepared and analyzed on 12/18/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS (DRO)
Sample D-SD-WC-1 (240-59150-1) was analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015C - DRO. The sample was prepared on 12/17/2015 and analyzed on 12/19/2015.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-211226/16-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP CHLORINATED PESTICIDES
Sample D-SD-WC-1 (240-59150-1) was analyzed for TCLP chlorinated pesticides in accordance with EPA SW-846 Methods 1311/8081B. The sample was leached on 12/16/2015, prepared on 12/17/2015 and analyzed on 12/21/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Sample D-SD-WC-1 (240-59150-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The sample was prepared on 12/17/2015 and analyzed on 12/20/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: D-SD-WC-1 (240-59150-1). Reagents: 2316599, 1848564, and 2333858.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP CHLORINATED HERBICIDES
Sample D-SD-WC-1 (240-59150-1) was analyzed for TCLP chlorinated herbicides in accordance with EPA SW-846 Methods 1311/8151A. The sample was leached on 12/16/2015, prepared on 12/17/2015 and analyzed on 12/18/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

The laboratory control sample (LCS) for preparation batch 240-211244 and 240-211300 and analytical batch 240-211535 recovered slightly outside control limits on the confirmation column for the following analyte: 2,4-D. The associated sample was reported from the primary column with passing LCS recovery.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)
Sample D-SD-WC-1 (240-59150-1) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The sample was leached on 12/16/2015, prepared on 12/17/2015 and analyzed on 12/18/2015.

Barium was detected in method blank LB 240-211244/1-B at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS (ICP)
Sample D-SD-WC-1 (240-59150-1) was analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The sample was prepared on 12/17/2015 and analyzed on 12/18/2015.

Chromium and Lead were detected in method blank MB 240-211321/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY
Sample D-SD-WC-1 (240-59150-1) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The sample was leached on 12/16/2015, and prepared and analyzed on 12/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Sample D-SD-WC-1 (240-59150-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The sample was prepared on 12/17/2015 and analyzed on 12/18/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORGANIC HALIDES, EXTRACTABLE (EOX)
Sample D-SD-WC-1 (240-59150-1) was analyzed for Organic Halides, Extractable (EOX) in accordance with EPA SW-846 Method 9023. The sample was prepared and analyzed on 12/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

OIL AND GREASE (HEM)
Sample D-SD-WC-1 (240-59150-1) was analyzed for oil and grease (HEM) in accordance with EPA SW-846 Method 9071B. The sample was prepared and analyzed on 12/20/2015.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 490-307906 and analytical batch 490-307909 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PAINT FILTER
Sample D-SD-WC-1 (240-59150-1) was analyzed for paint filter in accordance with SW-846 Method 9095B. The sample was analyzed on 12/22/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Sample D-SD-WC-1 (240-59150-1) was analyzed for percent solids in accordance with EPA Method 160.3 MOD. The sample was analyzed on 12/16/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A3UX12 Analysis Batch Number: 207869

Lab Sample ID: ICIS 240-207869/10 Client Sample ID:

Date Analyzed: 11/20/15 19:26 Lab File ID: U1247761.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Chloro-1-propene	3.23	Peak Tail	laveyt	11/20/15 20:51

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP7 Analysis Batch Number: 209109

Lab Sample ID: STD5 240-209109/2 IC Client Sample ID:

Date Analyzed: 12/02/15 12:51 Lab File ID: 51202002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.94	Poor chromatography	gruberj	12/02/15 13:20

Lab Sample ID: STD4 240-209109/3 IC Client Sample ID:

Date Analyzed: 12/02/15 13:15 Lab File ID: 51202003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.91	Poor chromatography	gruberj	12/02/15 13:34

Lab Sample ID: STD3 240-209109/4 IC Client Sample ID:

Date Analyzed: 12/02/15 13:39 Lab File ID: 51202004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.29	Poor chromatography	gruberj	12/02/15 14:00
Benzoic acid	6.89	Poor chromatography	gruberj	12/02/15 14:00

Lab Sample ID: STD2 240-209109/5 IC Client Sample ID:

Date Analyzed: 12/02/15 14:02 Lab File ID: 51202005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
N-Nitrosodimethylamine	2.81	Poor chromatography	gruberj	12/02/15 14:30
Pyridine	2.87	Poor chromatography	gruberj	12/02/15 14:30

Lab Sample ID: STD1 240-209109/6 IC Client Sample ID:

Date Analyzed: 12/02/15 14:26 Lab File ID: 51202006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	15.45	Poor chromatography	gruberj	12/02/15 14:50

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP7 Analysis Batch Number: 209109

Lab Sample ID: STD9 240-209109/7 IC Client Sample ID:

Date Analyzed: 12/02/15 14:50 Lab File ID: 51202007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.03	Poor chromatography	gruberj	12/03/15 09:04
Caprolactam	7.56	Poor chromatography	gruberj	12/03/15 09:04

Lab Sample ID: STD8 240-209109/8 IC Client Sample ID:

Date Analyzed: 12/02/15 15:14 Lab File ID: 51202008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.02	Poor chromatography	gruberj	12/03/15 09:06
Caprolactam	7.55	Poor chromatography	gruberj	12/03/15 09:06
4-Nitroaniline	9.09	Poor chromatography	gruberj	12/03/15 09:06

Lab Sample ID: STD7 240-209109/9 IC Client Sample ID:

Date Analyzed: 12/02/15 15:38 Lab File ID: 51202009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.00	Poor chromatography	gruberj	12/03/15 09:07
Caprolactam	7.54	Poor chromatography	gruberj	12/03/15 09:07

Lab Sample ID: STD6 240-209109/10 ICIS Client Sample ID:

Date Analyzed: 12/02/15 16:01 Lab File ID: 51202010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.98	Poor chromatography	gruberj	12/03/15 09:09
Caprolactam	7.51	Poor chromatography	gruberj	12/03/15 09:09

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP7 Analysis Batch Number: 209109

Lab Sample ID: ICV 240-209109/11 Client Sample ID:

Date Analyzed: 12/02/15 16:25 Lab File ID: 51202011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	6.98	Poor chromatography	gruberj	12/03/15 09:11
Caprolactam	7.52	Poor chromatography	gruberj	12/03/15 09:11

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 211271

Lab Sample ID: STD5 240-211271/2 IC Client Sample ID:

Date Analyzed: 12/17/15 12:07 Lab File ID: 51217002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.59	Poor chromatography	gruberj	12/17/15 12:53
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/17/15 12:53
Pyridine	3.10	Poor chromatography	gruberj	12/17/15 12:53

Lab Sample ID: STD4 240-211271/3 IC Client Sample ID:

Date Analyzed: 12/17/15 12:31 Lab File ID: 51217003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.60	Poor chromatography	gruberj	12/17/15 12:54
N-Nitrosodimethylamine	3.04	Poor chromatography	gruberj	12/17/15 12:54
Pyridine	3.10	Poor chromatography	gruberj	12/17/15 12:54

Lab Sample ID: STD3 240-211271/4 IC Client Sample ID:

Date Analyzed: 12/17/15 12:55 Lab File ID: 51217004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.59	Poor chromatography	gruberj	12/17/15 13:24
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/17/15 13:24
Pyridine	3.11	Poor chromatography	gruberj	12/17/15 13:24

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 211271

Lab Sample ID: STD2 240-211271/5 IC Client Sample ID:

Date Analyzed: 12/17/15 13:20 Lab File ID: 51217005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.59	Poor chromatography	gruberj	12/17/15 14:38
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/17/15 14:38
Pyridine	3.12	Poor chromatography	gruberj	12/17/15 14:38
Benzoic acid	6.80	Poor chromatography	gruberj	12/17/15 14:38
Benzo[k]fluoranthene	14.00	Poor chromatography	gruberj	12/17/15 14:38
Benzo[a]pyrene	14.46	Poor chromatography	gruberj	12/17/15 14:38
Indeno[1,2,3-cd]pyrene	16.22	Poor chromatography	gruberj	12/17/15 14:38
Dibenz(a,h)anthracene	16.24	Poor chromatography	gruberj	12/17/15 14:38

Lab Sample ID: STD1 240-211271/6 IC Client Sample ID:

Date Analyzed: 12/17/15 13:44 Lab File ID: 51217006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	16.24	Poor chromatography	gruberj	12/17/15 14:39
Dibenz(a,h)anthracene	16.25	Poor chromatography	gruberj	12/17/15 14:39
Benzo[g,h,i]perylene	16.66	Poor chromatography	gruberj	12/17/15 14:39

Lab Sample ID: STD9 240-211271/7 IC Client Sample ID:

Date Analyzed: 12/17/15 14:08 Lab File ID: 51217007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.59	Poor chromatography	gruberj	12/17/15 14:41
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/17/15 14:41
Pyridine	3.10	Poor chromatography	gruberj	12/17/15 14:41
Caprolactam	7.45	Poor chromatography	gruberj	12/17/15 14:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 211271

Lab Sample ID: STD8 240-211271/8 IC Client Sample ID:

Date Analyzed: 12/17/15 14:32 Lab File ID: 51217008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.59	Poor chromatography	gruberj	12/17/15 14:51
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/17/15 14:51
Pyridine	3.10	Poor chromatography	gruberj	12/17/15 14:51
Caprolactam	7.44	Poor chromatography	gruberj	12/17/15 14:51

Lab Sample ID: STD7 240-211271/9 IC Client Sample ID:

Date Analyzed: 12/17/15 14:57 Lab File ID: 51217009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.60	Poor chromatography	gruberj	12/18/15 09:12
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/18/15 09:12
Pyridine	3.10	Poor chromatography	gruberj	12/18/15 09:12
Caprolactam	7.43	Poor chromatography	gruberj	12/18/15 09:12

Lab Sample ID: STD6 240-211271/10 ICIS Client Sample ID:

Date Analyzed: 12/17/15 15:21 Lab File ID: 51217010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.59	Poor chromatography	gruberj	12/18/15 09:13
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/18/15 09:13
Pyridine	3.10	Poor chromatography	gruberj	12/18/15 09:13
Caprolactam	7.42	Poor chromatography	gruberj	12/18/15 09:13

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 211271

Lab Sample ID: ICV 240-211271/11 Client Sample ID:

Date Analyzed: 12/17/15 15:45 Lab File ID: 51217011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.60	Poor chromatography	gruberj	12/18/15 09:14
N-Nitrosodimethylamine	3.03	Poor chromatography	gruberj	12/18/15 09:14
Pyridine	3.10	Poor chromatography	gruberj	12/18/15 09:14
Caprolactam	7.42	Poor chromatography	gruberj	12/18/15 09:14

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 211748

Lab Sample ID: CCV 240-211748/2 CCVIS Client Sample ID:

Date Analyzed: 12/21/15 10:44 Lab File ID: 51221002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.52	Poor chromatography	gruberj	12/21/15 11:03
N-Nitrosodimethylamine	2.96	Poor chromatography	gruberj	12/21/15 11:03
Pyridine	3.03	Poor chromatography	gruberj	12/21/15 11:03

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Analysis Batch Number: 211902

Lab Sample ID: CCV 240-211902/2 CCVIS Client Sample ID:

Date Analyzed: 12/22/15 09:44 Lab File ID: 51222002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.53	Poor chromatography	gruberj	12/22/15 10:05
N-Nitrosodimethylamine	2.97	Poor chromatography	gruberj	12/22/15 10:05
Pyridine	3.05	Poor chromatography	gruberj	12/22/15 10:05

Lab Sample ID: 240-59150-1 Client Sample ID: D-SD-WC-1

Date Analyzed: 12/22/15 18:17 Lab File ID: 51222024.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[k]fluoranthene	13.73	Poor chromatography	gruberj	12/23/15 10:05

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: AFID Analysis Batch Number: 194508

Lab Sample ID: STD1 240-194508/7 IC Client Sample ID:

Date Analyzed: 08/24/15 13:59 Lab File ID: A0082107.D GC Column: RTX-VRX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trifluorotoluene (Surr)	10.34	Baseline Smoothing	bosworthh	08/25/15 10:02
Gasoline Range Organics [C6 - C10]	11.46	Baseline Smoothing	bosworthh	08/25/15 10:02
C6-C12	12.73	Baseline Smoothing	bosworthh	08/25/15 10:02

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Analysis Batch Number: 210206

Lab Sample ID: PEM 240-210206/5 Client Sample ID:

Date Analyzed: 12/11/15 11:49 Lab File ID: P3121105.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDE	8.87	Incomplete Integration	matthewsb	12/11/15 12:08

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Analysis Batch Number: 210591

Lab Sample ID: STD 240-210591/6 IC Client Sample ID:

Date Analyzed: 12/13/15 12:41 Lab File ID: P3121306.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	10.34	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 2	10.77	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 3	11.08	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 4	11.42	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 5	11.52	Baseline Smoothing	matthewsb	12/14/15 07:32

Lab Sample ID: STD 240-210591/6 IC Client Sample ID:

Date Analyzed: 12/13/15 12:41 Lab File ID: P3121306.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	11.51	Baseline Smoothing	matthewsb	12/14/15 07:34
Toxaphene Peak 2	11.67	Baseline Smoothing	matthewsb	12/14/15 07:34
Toxaphene Peak 3	12.08	Baseline Smoothing	matthewsb	12/14/15 07:34
Toxaphene Peak 4	12.82	Baseline Smoothing	matthewsb	12/14/15 07:34
Toxaphene Peak 5	12.91	Baseline Smoothing	matthewsb	12/14/15 07:34

Lab Sample ID: STD 240-210591/7 IC Client Sample ID:

Date Analyzed: 12/13/15 13:03 Lab File ID: P3121307.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	10.34	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 2	10.77	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 3	11.09	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 4	11.42	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 5	11.52	Baseline Smoothing	matthewsb	12/14/15 07:25

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Analysis Batch Number: 210591

Lab Sample ID: STD 240-210591/7 IC Client Sample ID:

Date Analyzed: 12/13/15 13:03 Lab File ID: P3121307.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	11.51	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 2	11.67	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 3	12.08	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 4	12.82	Baseline Smoothing	matthewsb	12/14/15 07:25
Toxaphene Peak 5	12.91	Baseline Smoothing	matthewsb	12/14/15 07:25

Lab Sample ID: STD 240-210591/8 IC Client Sample ID:

Date Analyzed: 12/13/15 13:25 Lab File ID: P3121308.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	10.34	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 2	10.77	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 3	11.08	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 4	11.42	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 5	11.52	Baseline Smoothing	matthewsb	12/14/15 07:26

Lab Sample ID: STD 240-210591/8 IC Client Sample ID:

Date Analyzed: 12/13/15 13:25 Lab File ID: P3121308.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	11.50	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 2	11.67	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 3	12.08	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 4	12.82	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 5	12.91	Baseline Smoothing	matthewsb	12/14/15 07:26

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Analysis Batch Number: 210591

Lab Sample ID: STD 240-210591/9 IC Client Sample ID:

Date Analyzed: 12/13/15 13:46 Lab File ID: P3121309.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	10.34	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 2	10.77	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 3	11.08	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 4	11.42	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 5	11.52	Baseline Smoothing	matthewsb	12/14/15 07:26

Lab Sample ID: STD 240-210591/10 IC Client Sample ID:

Date Analyzed: 12/13/15 14:08 Lab File ID: P3121310.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	10.34	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 2	10.77	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 3	11.08	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 4	11.42	Baseline Smoothing	matthewsb	12/14/15 07:32
Toxaphene Peak 5	11.52	Baseline Smoothing	matthewsb	12/14/15 07:32

Lab Sample ID: STD 240-210591/10 IC Client Sample ID:

Date Analyzed: 12/13/15 14:08 Lab File ID: P3121310.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	11.50	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 2	11.67	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 3	12.08	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 4	12.82	Baseline Smoothing	matthewsb	12/14/15 07:26
Toxaphene Peak 5	12.91	Baseline Smoothing	matthewsb	12/14/15 07:26

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Analysis Batch Number: 210591

Lab Sample ID: STD 240-210591/14 IC Client Sample ID:

Date Analyzed: 12/13/15 15:35 Lab File ID: P3121314.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlordane (technical) Peak 1	6.93	Incomplete Integration	matthewsb	12/14/15 07:36
Chlordane (technical) Peak 2	8.63	Incomplete Integration	matthewsb	12/14/15 07:36
Chlordane (technical) Peak 3	9.81	Incomplete Integration	matthewsb	12/14/15 07:36
Chlordane (technical) Peak 4	10.09	Incomplete Integration	matthewsb	12/14/15 07:36

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Analysis Batch Number: 211762

Lab Sample ID: CCV 240-211762/7 Client Sample ID:

Date Analyzed: 12/21/15 13:45 Lab File ID: P3122107.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	10.27	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 2	10.71	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 3	11.01	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 4	11.35	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 5	11.45	Baseline Smoothing	matthewsb	12/22/15 08:02

Lab Sample ID: CCV 240-211762/7 Client Sample ID:

Date Analyzed: 12/21/15 13:45 Lab File ID: P3122107.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene Peak 1	11.43	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 2	11.60	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 3	12.02	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 4	12.75	Baseline Smoothing	matthewsb	12/22/15 08:02
Toxaphene Peak 5	12.84	Baseline Smoothing	matthewsb	12/22/15 08:02

Lab Sample ID: LCS 240-211299/4-A Client Sample ID:

Date Analyzed: 12/21/15 18:00 Lab File ID: P3122118.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DCB Decachlorobiphenyl	13.50	Incomplete Integration	matthewsb	12/22/15 08:13

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 207007

Lab Sample ID: STD05 240-207007/7 IC Client Sample ID:

Date Analyzed: 11/16/15 21:09 Lab File ID: P1200042.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1262 Peak 1	7.95	Baseline Smoothing	hassl	11/17/15 06:39
PCB-1262 Peak 2	8.75	Baseline Smoothing	hassl	11/17/15 06:39
PCB-1262 Peak 3	9.03	Baseline Smoothing	hassl	11/17/15 06:39
PCB-1262 Peak 4	9.40	Baseline Smoothing	hassl	11/17/15 06:39
PCB-1262 Peak 5	9.77	Baseline Smoothing	hassl	11/17/15 06:39

Lab Sample ID: STD1 240-207007/8 IC Client Sample ID:

Date Analyzed: 11/16/15 21:27 Lab File ID: P1200043.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1262 Peak 1	7.95	Baseline Smoothing	hassl	11/17/15 06:40
PCB-1262 Peak 2	8.75	Baseline Smoothing	hassl	11/17/15 06:40
PCB-1262 Peak 3	9.03	Baseline Smoothing	hassl	11/17/15 06:40
PCB-1262 Peak 4	9.40	Baseline Smoothing	hassl	11/17/15 06:40
PCB-1262 Peak 5	9.77	Baseline Smoothing	hassl	11/17/15 06:40

Lab Sample ID: STD02 240-207007/30 IC Client Sample ID:

Date Analyzed: 11/17/15 04:05 Lab File ID: P1200065.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	4.61	Baseline Smoothing	hassl	11/17/15 06:42
PCB-1016 Peak 2	5.11	Baseline Smoothing	hassl	11/17/15 06:42
PCB-1016 Peak 3	5.74	Baseline Smoothing	hassl	11/17/15 06:42
PCB-1016 Peak 4	5.91	Baseline Smoothing	hassl	11/17/15 06:42
PCB-1016 Peak 5	6.45	Baseline Smoothing	hassl	11/17/15 06:42

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP12 Analysis Batch Number: 207007

Lab Sample ID: ICV 240-207007/39 Client Sample ID:

Date Analyzed: 11/17/15 06:48 Lab File ID: P1200074.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260 Peak 1	7.95	Baseline Smoothing	hassl	11/17/15 08:38
PCB-1260 Peak 2	8.29	Baseline Smoothing	hassl	11/17/15 08:38
PCB-1260 Peak 3	8.61	Baseline Smoothing	hassl	11/17/15 08:38
PCB-1260 Peak 4	9.40	Baseline Smoothing	hassl	11/17/15 08:38
PCB-1260 Peak 5	9.72	Baseline Smoothing	hassl	11/17/15 08:38

HERBICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP1 Analysis Batch Number: 210910

Lab Sample ID: STD4 240-210910/10 IC Client Sample ID:

Date Analyzed: 12/15/15 17:19 Lab File ID: P1121510.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dicamba	7.83	Other	bolgrind	12/15/15 22:52

Lab Sample ID: STD7 240-210910/13 IC Client Sample ID:

Date Analyzed: 12/15/15 18:36 Lab File ID: P1121513.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MCPP	7.47	Other	bolgrind	12/15/15 22:53

HERBICIDES MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP1 Analysis Batch Number: 211535

Lab Sample ID: CCV 240-211535/13 Client Sample ID:

Date Analyzed: 12/18/15 20:23 Lab File ID: P1121813.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dinoseb	11.44	Other	bolgrind	12/21/15 10:35

Lab Sample ID: LCS 240-211300/4-A Client Sample ID:

Date Analyzed: 12/18/15 21:14 Lab File ID: P1121815.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-Dichlorophenylacetic acid	7.68	Other	bolgrind	12/21/15 10:37

Lab Sample ID: 240-59150-1 Client Sample ID: D-SD-WC-1

Date Analyzed: 12/18/15 21:40 Lab File ID: P1121816.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-Dichlorophenylacetic acid	7.68	Other	bolgrind	12/21/15 10:39

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-59150-1	D-SD-WC-1	Solid	12/15/2015 1400	12/16/2015 0930

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-59150-1	**D-SD-WC-1**					
2-Butanone (MEK)		52		26	ug/Kg	8260C
Acetone		210	B	26	ug/Kg	8260C
Carbon disulfide		11		6.6	ug/Kg	8260C
Naphthalene		2.0	J B	6.6	ug/Kg	8260C
1,1'-Biphenyl		51	J	130	ug/Kg	8270D
2-Methylnaphthalene		200		18	ug/Kg	8270D
Acenaphthene		490		18	ug/Kg	8270D
Acenaphthylene		130		18	ug/Kg	8270D
Anthracene		330		18	ug/Kg	8270D
Benzo[a]anthracene		890		18	ug/Kg	8270D
Benzo[a]pyrene		820		18	ug/Kg	8270D
Benzo[b]fluoranthene		1100		18	ug/Kg	8270D
Benzo[g,h,i]perylene		460		18	ug/Kg	8270D
Benzo[k]fluoranthene		440		18	ug/Kg	8270D
Carbazole		130		130	ug/Kg	8270D
Chrysene		1000		18	ug/Kg	8270D
Dibenz(a,h)anthracene		120		18	ug/Kg	8270D
Dibenzofuran		280		130	ug/Kg	8270D
Fluoranthene		2000		18	ug/Kg	8270D
Fluorene		370		18	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		410		18	ug/Kg	8270D
Naphthalene		830		18	ug/Kg	8270D
Phenanthrene		1700		18	ug/Kg	8270D
Pyrene		2200		18	ug/Kg	8270D
Total Petroleum Hydrocarbons (C10-C32)		120	B	22	mg/Kg	8015C
Aroclor-1260		15	J	44	ug/Kg	8082A
Arsenic		3.1		1.5	mg/Kg	6010C
Cadmium		0.61		0.51	mg/Kg	6010C
Barium		29		21	mg/Kg	6010C
Lead		41	B	1.0	mg/Kg	6010C
Selenium		0.35	J	2.1	mg/Kg	6010C
Chromium		15	B	1.0	mg/Kg	6010C
Mercury		0.039	J	0.13	mg/Kg	7471A
HEM		77	J	130	mg/Kg	9071B
Free Liquid		CNF		0.10	NONE	9095B
Percent Solids		75		0.10	%	Moisture
Percent Moisture		25		0.10	%	Moisture
TCLP						
3 & 4 Methylphenol		0.0013	J	0.0040	mg/L	8270C
Arsenic		0.012	J	0.50	mg/L	6010B
Barium		0.26	J B	10	mg/L	6010B
Cadmium		0.015	J	0.10	mg/L	6010B
Chromium		0.0018	J	0.50	mg/L	6010B
Lead		0.31	J	0.50	mg/L	6010B
Selenium		0.0069	J	0.25	mg/L	6010B

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL CAN	SW846 8260B	
TCLP Extraction	TAL CAN		SW846 1311
Purge and Trap	TAL CAN		SW846 5030B
Volatile Organic Compounds by GC/MS	TAL CAN	SW846 8260C	
Closed System Purge and Trap	TAL CAN		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270C	
TCLP Extraction	TAL CAN		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL CAN		SW846 3510C
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CAN	SW846 8015C	
Purge and Trap	TAL CAN		SW846 5030A
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL CAN	SW846 8015C	
Soxhlet Extraction	TAL CAN		SW846 3540C
Organochlorine Pesticides (GC)	TAL CAN	SW846 8081B	
TCLP Extraction	TAL CAN		SW846 1311
Liquid-Liquid Extraction (Continuous)	TAL CAN		SW846 3520C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL CAN	SW846 8082A	
Soxhlet Extraction	TAL CAN		SW846 3540C
Herbicides (GC)	TAL CAN	SW846 8151A	
TCLP Extraction	TAL CAN		SW846 1311
Extraction (Herbicides)	TAL CAN		SW846 8151A
Metals (ICP)	TAL CAN	SW846 6010B	
TCLP Extraction	TAL CAN		SW846 1311
Preparation, Total Metals	TAL CAN		SW846 3010A
Metals (ICP)	TAL CAN	SW846 6010C	
Preparation, Metals	TAL CAN		SW846 3050B
Mercury (CVAA)	TAL CAN	SW846 7470A	
TCLP Extraction	TAL CAN		SW846 1311
Preparation, Mercury	TAL CAN		SW846 7470A
Mercury (CVAA)	TAL CAN	SW846 7471A	
Preparation, Mercury	TAL CAN		SW846 7471A
Organic Halides, Extractable (EOX)	TAL CAN	SW846 9023	
Preparation, EOX	TAL CAN		SW846 9023
Paint Filter	TAL CAN	SW846 9095B	
Percent Moisture	TAL CAN	EPA Moisture	
HEM and SGT-HEM	TAL NSH	SW846 9071B	
Preparation, HEM and SGT-HEM	TAL NSH		SW846 9071B

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Description	Lab Location	Method	Preparation Method

Lab References:

TAL CAN = TestAmerica Canton

TAL NSH = TestAmerica Nashville

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method	Analyst	Analyst ID
SW846 8260B	Lavey, Tim	TJL1
SW846 8260C	Macenczak, Steven	SAM
SW846 8270C	Gruber, John	JMG
SW846 8270D	Gruber, John	JMG
SW846 8015C	Reed, Rachel T	RTR
SW846 8015C	Bolgrin, Deborah	DEB
SW846 8081B	Matthews, Brandon	BPM
SW846 8082A	Hass, Lori	LSH
SW846 8151A	Bolgrin, Deborah	DEB
SW846 6010B	Toth, Roger	RKT
SW846 6010C	Counts, Karen	KLC
SW846 7470A	Lecorchick, Willis A	WAL
SW846 7471A	Lecorchick, Willis A	WAL
SW846 9023	Harshman, Tom	TPH
SW846 9071B	Jackson, Laterio O	LOJ
SW846 9095B	Harshman, Tom	TPH
EPA Moisture	Woodward, Bruce	BLW

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	240-211382	Instrument ID:	A3UX12
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	U1248352.D
Dilution:	1.0	Leach Batch:	240-211257	Initial Weight/Volume:	0.1 mL
Analysis Date:	12/17/2015 2336			Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 2336				
Leach Date:	12/16/2015 2000				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
1,1-Dichloroethene		0.0095	U F2	0.0095	0.025
1,2-Dichloroethane		0.011	U F2	0.011	0.025
2-Butanone (MEK)		0.029	U F2	0.029	0.25
Benzene		0.0065	U F2	0.0065	0.025
Carbon tetrachloride		0.0065	U F2	0.0065	0.025
Chlorobenzene		0.0075	U F2	0.0075	0.025
Chloroform		0.0080	U F2	0.0080	0.025
Tetrachloroethene		0.015	U F2	0.015	0.025
Trichloroethene		0.0085	U F2	0.0085	0.025
Vinyl chloride		0.011	U F2	0.011	0.025

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		80 - 121
4-Bromofluorobenzene (Surr)	82		70 - 124
Toluene-d8 (Surr)	89		80 - 120
Dibromofluoromethane (Surr)	87		80 - 128

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-211550	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-211081	Lab File ID:	147141.D
Dilution:	1.0			Initial Weight/Volume:	5.05 g
Analysis Date:	12/18/2015 2139			Final Weight/Volume:	5 mL
Prep Date:	12/16/2015 1656				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		0.66	U	0.66	6.6
1,1,1-Trichloroethane		0.85	U	0.85	6.6
1,1,2,2-Tetrachloroethane		0.41	U	0.41	6.6
1,1,2-Trichloro-1,2,2-trifluoroethane		0.55	U	0.55	6.6
1,1-Dichloroethane		0.45	U	0.45	6.6
1,1-Dichloroethene		1.1	U	1.1	6.6
1,1-Dichloropropene		0.49	U	0.49	6.6
1,2,3-Trichlorobenzene		0.66	U	0.66	6.6
1,2,3-Trichloropropane		1.0	U	1.0	6.6
1,2,3-Trimethylbenzene		0.60	U	0.60	6.6
1,2,4-Trichlorobenzene		0.50	U	0.50	6.6
1,2,4-Trimethylbenzene		0.76	U	0.76	6.6
1,2-Dibromo-3-Chloropropane		3.6	U	3.6	13
1,2-Dichlorobenzene		0.45	U	0.45	6.6
1,2-Dichloroethane		0.60	U	0.60	6.6
1,2-Dichloropropane		0.18	U	0.18	6.6
1,3-Dichlorobenzene		0.91	U	0.91	6.6
1,3-Dichloropropane		0.53	U	0.53	6.6
1,4-Dichlorobenzene		0.37	U	0.37	6.6
2,2-Dichloropropane		0.58	U	0.58	6.6
2-Butanone (MEK)		52		1.5	26
2-Chloroethyl vinyl ether		0.84	U	0.84	66
2-Chlorotoluene		0.39	U	0.39	6.6
2-Hexanone		0.89	U	0.89	26
4-Chlorotoluene		0.34	U	0.34	6.6
p-Isopropyltoluene		0.54	U	0.54	6.6
4-Methyl-2-pentanone (MIBK)		1.6	U	1.6	26
Acetone		210	B	7.5	26
Benzene		1.2	U	1.2	6.6
Bromobenzene		0.43	U	0.43	6.6
Bromoform		0.32	U	0.32	6.6
Bromomethane		0.55	U	0.55	6.6
Carbon disulfide		11		0.78	6.6
Carbon tetrachloride		0.85	U	0.85	6.6
Chlorobenzene		0.70	U	0.70	6.6
Dibromochloromethane		0.49	U	0.49	6.6
Chloroethane		0.58	U	0.58	6.6
Chloroform		0.47	U	0.47	6.6
Chloromethane		1.0	U	1.0	6.6
cis-1,2-Dichloroethene		0.37	U	0.37	6.6
cis-1,3-Dichloropropene		0.93	U	0.93	6.6
Dibromomethane		0.55	U	0.55	6.6
Bromochloromethane		0.43	U	0.43	6.6
Dichlorodifluoromethane		0.37	U	0.37	6.6
Bromodichloromethane		0.38	U	0.38	6.6
tert-Butyl alcohol (TBA)		7.5	U	7.5	260

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-211550	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-211081	Lab File ID:	147141.D
Dilution:	1.0			Initial Weight/Volume:	5.05 g
Analysis Date:	12/18/2015 2139			Final Weight/Volume:	5 mL
Prep Date:	12/16/2015 1656				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		0.42	U	0.42	6.6
Hexachlorobutadiene		0.53	U	0.53	6.6
Diisopropyl ether		0.78	U	0.78	13
Isopropylbenzene		0.26	U	0.26	6.6
Methyl tert-butyl ether		0.56	U	0.56	6.6
Methylene Chloride		0.97	U	0.97	6.6
m-Xylene & p-Xylene		0.55	U	0.55	13
Naphthalene		2.0	J B	0.46	6.6
n-Butylbenzene		0.78	U	0.78	6.6
N-Propylbenzene		0.79	U	0.79	6.6
o-Xylene		0.75	U	0.75	6.6
sec-Butylbenzene		1.2	U	1.2	6.6
Styrene		0.53	U	0.53	6.6
Tert-amyl methyl ether		0.56	U	0.56	6.6
Ethyl t-butyl ether		0.54	U	0.54	6.6
Tetrachloroethene		1.1	U	1.1	6.6
Toluene		0.35	U	0.35	6.6
trans-1,2-Dichloroethene		0.42	U	0.42	6.6
trans-1,3-Dichloropropene		0.38	U	0.38	6.6
Trichloroethene		0.50	U	0.50	6.6
Trichlorofluoromethane		0.38	U	0.38	6.6
Vinyl acetate		0.87	U	0.87	13
Vinyl chloride		0.39	U	0.39	6.6
Xylenes, Total		0.71	U	0.71	13
tert-Butylbenzene		0.88	U	0.88	6.6
1,2-Dibromoethane		0.70	U	0.70	6.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	103		67 - 125
Dibromofluoromethane (Surr)	92		37 - 132
4-Bromofluorobenzene (Surr)	104		52 - 136
1,2-Dichloroethane-d4 (Surr)	95		58 - 123

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8270C	Analysis Batch:	240-211628	Instrument ID:	A4HP7
Prep Method:	3510C	Prep Batch:	240-211298	Lab File ID:	51220011.D
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	250 mL
Analysis Date:	12/20/2015 1357			Final Weight/Volume:	2 mL
Prep Date:	12/17/2015 1039			Injection Volume:	1 uL
Leach Date:	12/16/2015 1835				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
1,4-Dichlorobenzene		0.00034	U	0.00034	0.0040
2,4,5-Trichlorophenol		0.00030	U	0.00030	0.0040
2,4,6-Trichlorophenol		0.00024	U	0.00024	0.0040
2,4-Dinitrotoluene		0.00025	U	0.00025	0.0040
Hexachlorobenzene		0.000085	U	0.000085	0.00080
Hexachlorobutadiene		0.00027	U	0.00027	0.0040
Hexachloroethane		0.00019	U	0.00019	0.0040
3 & 4 Methylphenol		0.0013	J	0.00080	0.0040
2-Methylphenol		0.00017	U	0.00017	0.0040
Nitrobenzene		0.000040	U	0.000040	0.0040
Pentachlorophenol		0.00027	U	0.00027	0.016
Pyridine		0.00035	U	0.00035	0.0040

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	77		30 - 110
2-Fluorophenol (Surr)	55		20 - 110
2,4,6-Tribromophenol (Surr)	80		23 - 110
Nitrobenzene-d5 (Surr)	83		28 - 110
Phenol-d5 (Surr)	40		21 - 110
Terphenyl-d14 (Surr)	77		48 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-211902	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-211448	Lab File ID:	51222024.D
Dilution:	2.0			Initial Weight/Volume:	29.61 g
Analysis Date:	12/22/2015 1817			Final Weight/Volume:	2 mL
Prep Date:	12/18/2015 0726			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		51	J	9.4	130
bis (2-chloroisopropyl) ether		26	U	26	270
2,4,5-Trichlorophenol		67	U	67	400
2,4,6-Trichlorophenol		24	U	24	400
2,4-Dichlorophenol		54	U	54	400
2,4-Dimethylphenol		54	U	54	400
2,4-Dinitrophenol		56	U	56	890
2,4-Dinitrotoluene		46	U	46	540
2,6-Dinitrotoluene		56	U	56	540
2-Chloronaphthalene		1.2	U	1.2	130
2-Chlorophenol		22	U	22	130
2-Methylnaphthalene		200		1.3	18
2-Methylphenol		30	U	30	540
2-Nitroaniline		24	U	24	540
2-Nitrophenol		22	U	22	130
3,3'-Dichlorobenzidine		48	U	48	270
3-Nitroaniline		43	U	43	540
4,6-Dinitro-2-methylphenol		25	U	25	400
4-Bromophenyl phenyl ether		35	U	35	130
4-Chloro-3-methylphenol		56	U	56	400
4-Chloroaniline		46	U	46	400
4-Chlorophenyl phenyl ether		35	U	35	130
4-Nitroaniline		70	U	70	540
4-Nitrophenol		46	U	46	890
Acenaphthene		490		2.0	18
Acenaphthylene		130		0.94	18
Acetophenone		25	U	25	270
Anthracene		330		2.1	18
Atrazine		24	U	24	540
Benzaldehyde		32	U	32	270
Benzo[a]anthracene		890		1.7	18
Benzo[a]pyrene		820		1.7	18
Benzo[b]fluoranthene		1100		1.6	18
Benzo[g,h,i]perylene		460		0.94	18
Benzo[k]fluoranthene		440		1.8	18
Bis(2-chloroethoxy)methane		59	U	59	270
Bis(2-chloroethyl)ether		5.4	U	5.4	270
Bis(2-ethylhexyl) phthalate		51	U	51	190
Butyl benzyl phthalate		27	U	27	190
Caprolactam		99	U	99	890
Carbazole		130		73	130
Chrysene		1000		3.0	18
Dibenz(a,h)anthracene		120		1.8	18
Dibenzofuran		280		1.8	130
Diethyl phthalate		43	U	43	190
Dimethyl phthalate		46	U	46	190

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-211902	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-211448	Lab File ID:	51222024.D
Dilution:	2.0			Initial Weight/Volume:	29.61 g
Analysis Date:	12/22/2015 1817			Final Weight/Volume:	2 mL
Prep Date:	12/18/2015 0726			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		40	U	40	190
Di-n-octyl phthalate		21	U	21	190
Fluoranthene		2000		1.5	18
Fluorene		370		1.4	18
Hexachlorobenzene		5.6	U	5.6	18
Hexachlorobutadiene		15	U	15	130
Hexachlorocyclopentadiene		22	U	22	890
Hexachloroethane		24	U	24	130
Indeno[1,2,3-cd]pyrene		410		0.94	18
Isophorone		35	U	35	130
N-Nitrosodi-n-propylamine		17	U	17	130
N-Nitrosodiphenylamine		56	U	56	130
Naphthalene		830		2.2	18
Nitrobenzene		5.9	U	5.9	270
Pentachlorophenol		24	U	24	400
Phenanthrene		1700		2.0	18
Phenol		20	U	20	130
Pyrene		2200		1.2	18
3 & 4 Methylphenol		54	U	54	1100

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	66		36 - 110
Phenol-d5 (Surr)	61		26 - 110
Nitrobenzene-d5 (Surr)	50		20 - 110
2-Fluorophenol (Surr)	54		24 - 110
2-Fluorobiphenyl (Surr)	61		24 - 110
2,4,6-Tribromophenol (Surr)	61		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-211453	Instrument ID:	AFID
Prep Method:	5030A	Prep Batch:	240-211450	Initial Weight/Volume:	4.98 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	12/18/2015 1343			Injection Volume:	5 mL
Prep Date:	12/18/2015 0747			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics [C6 - C10]		61	U	61	130

Surrogate	%Rec	Qualifier	Acceptance Limits
Trifluorotoluene (Surr)	79		40 - 139

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-211542	Instrument ID:	A2HP5F
Prep Method:	3540C	Prep Batch:	240-211226	Initial Weight/Volume:	29.63 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	12/19/2015 0439			Injection Volume:	1 uL
Prep Date:	12/17/2015 0740			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		120	B	8.6	22

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl (Surr)	88		40 - 160

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

8081B Organochlorine Pesticides (GC)-TCLP

Analysis Method:	8081B	Analysis Batch:	240-211762	Instrument ID:	A2HP3
Prep Method:	3520C	Prep Batch:	240-211299	Initial Weight/Volume:	250 mL
Dilution:	1.0	Leach Batch:	240-211244	Final Weight/Volume:	3 mL
Analysis Date:	12/21/2015 1650			Injection Volume:	1 uL
Prep Date:	12/17/2015 1041			Result Type:	PRIMARY
Leach Date:	12/16/2015 1835				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Chlordane (technical)		0.00014	U	0.00014	0.0050
Endrin		0.000013	U	0.000013	0.00050
Heptachlor		0.000014	U	0.000014	0.00050
Heptachlor epoxide		0.000015	U	0.000015	0.00050
gamma-BHC (Lindane)		0.000013	U	0.000013	0.00050
Methoxychlor		0.000013	U	0.000013	0.0010
Toxaphene		0.00020	U	0.00020	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	93		10 - 141
Tetrachloro-m-xylene	80		34 - 121

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

8081B Organochlorine Pesticides (GC)-TCLP

Analysis Method:	8081B	Analysis Batch:	240-211762	Instrument ID:	A2HP3
Prep Method:	3520C	Prep Batch:	240-211299	Initial Weight/Volume:	250 mL
Dilution:	1.0	Leach Batch:	240-211244	Final Weight/Volume:	3 mL
Analysis Date:	12/21/2015 1650			Injection Volume:	1 uL
Prep Date:	12/17/2015 1041			Result Type:	SECONDARY
Leach Date:	12/16/2015 1835				

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	85		10 - 141
Tetrachloro-m-xylene	83		34 - 121

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-211637	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-211247	Initial Weight/Volume:	29.70 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	12/20/2015 1642			Injection Volume:	1 uL
Prep Date:	12/17/2015 0824			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		16	U	16	44
Aroclor-1221		21	U	21	44
Aroclor-1232		27	U	27	44
Aroclor-1242		15	U	15	44
Aroclor-1248		11	U	11	44
Aroclor-1254		19	U	19	44
Aroclor-1260		15	J	12	44

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		13 - 134
DCB Decachlorobiphenyl	129		10 - 155

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

8151A Herbicides (GC)-TCLP

Analysis Method:	8151A	Analysis Batch:	240-211535	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-211300	Initial Weight/Volume:	100 mL
Dilution:	1.0	Leach Batch:	240-211244	Final Weight/Volume:	10 mL
Analysis Date:	12/18/2015 2140			Injection Volume:	1 uL
Prep Date:	12/17/2015 1042			Result Type:	PRIMARY
Leach Date:	12/16/2015 1835				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2,4-D		0.0019	U	0.0019	0.0040
Silvex (2,4,5-TP)		0.00027	U	0.00027	0.0010

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	64		56 - 120

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

8151A Herbicides (GC)-TCLP

Analysis Method:	8151A	Analysis Batch:	240-211535	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-211300	Initial Weight/Volume:	100 mL
Dilution:	1.0	Leach Batch:	240-211244	Final Weight/Volume:	10 mL
Analysis Date:	12/18/2015 2140			Injection Volume:	1 uL
Prep Date:	12/17/2015 1042			Result Type:	SECONDARY
Leach Date:	12/16/2015 1835				

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	64		56 - 120

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid Date Received: 12/16/2015 0930

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	240-211692	Instrument ID:	I12
Prep Method:	3010A	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1352			Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	12/16/2015 1835				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.012	J	0.0029	0.50
Barium		0.26	J B	0.0010	10
Cadmium		0.015	J	0.00014	0.10
Chromium		0.0018	J	0.00055	0.50
Lead		0.31	J	0.0019	0.50
Selenium		0.0069	J	0.0040	0.25
Silver		0.00092	U	0.00092	0.50

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	240-211528	Instrument ID:	I9
Prep Method:	3050B	Prep Batch:	240-211321	Lab File ID:	I9121815A.asc
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	12/18/2015 1159			Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1120				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.1		0.42	1.5
Cadmium		0.61		0.022	0.51
Barium		29		0.42	21
Silver		0.065	U	0.065	1.0
Lead		41	B	0.023	1.0
Selenium		0.35	J	0.35	2.1
Chromium		15	B	0.077	1.0

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	240-211362	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-211320	Lab File ID:	121715AH1.PRN
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/17/2015 1646			Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1400				
Leach Date:	12/16/2015 1835				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000090	U	0.000090	0.0020

7471A Mercury (CVAA)

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Client Sample ID: **D-SD-WC-1**

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	240-211442	Instrument ID:	H4
Prep Method:	7471A	Prep Batch:	240-211344	Lab File ID:	121815AH4.PRN
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Analysis Date:	12/18/2015 0605			Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1455				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.039	J	0.019	0.13

General Chemistry

Client Sample ID: D-SD-WC-1

Lab Sample ID: 240-59150-1 Date Sampled: 12/15/2015 1400
Client Matrix: Solid % Moisture: 24.6 Date Received: 12/16/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Halogens, Extractable Organic	42	U	mg/Kg	42	270	1.0	9023
Analysis Batch: 240-211352	Analysis Date: 12/17/2015 1234						DryWt Corrected: Y
Prep Batch: 240-211224	Prep Date: 12/17/2015 0719						
HEM	77	J	mg/Kg	73	130	1.0	9071B
Analysis Batch: 490-307909	Analysis Date: 12/20/2015 1307						DryWt Corrected: Y
Prep Batch: 490-307906	Prep Date: 12/20/2015 1307						
Free Liquid	CNF		NONE	0.10	0.10	1.0	9095B
Analysis Batch: 240-211879	Analysis Date: 12/22/2015 0646						DryWt Corrected: N
Percent Solids	75		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-211066	Analysis Date: 12/16/2015 1621						DryWt Corrected: N
Percent Moisture	25		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-211066	Analysis Date: 12/16/2015 1621						DryWt Corrected: N

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-59150-1	D-SD-WC-1	87	88	89	82
LB 240-211257/1-A MB		90	92	94	81
LCS 240-211382/9		94	81	90	78
240-59150-1 MS	D-SD-WC-1 MS	93	82	95	77
240-59150-1 MSD	D-SD-WC-1 MSD	88	86	93	84

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	80-128
DCA = 1,2-Dichloroethane-d4 (Surr)	80-121
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	70-124

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-59150-1	D-SD-WC-1	92	95	103	104
MB 240-211550/6		92	92	93	84
LCS 240-211550/5		89	85	91	84
LCS 240-211550/7		85	85	87	84

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-59150-1	D-SD-WC-1	55	40	83	77	80	77
MB 240-211298/3-A		57	40	80	71	83	78
LCS 240-211298/4-A		74	51	91	80	90	91
240-59150-1 MS	D-SD-WC-1 MS	57	41	74	70	70	75

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	20-110
PHL = Phenol-d5 (Surr)	21-110
NBZ = Nitrobenzene-d5 (Surr)	28-110
FBP = 2-Fluorobiphenyl (Surr)	30-110
TBP = 2,4,6-Tribromophenol (Surr)	23-110
TPH = Terphenyl-d14 (Surr)	48-110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-59150-1	D-SD-WC-1	54	61	50	61	61	66
MB 240-211448/17-A		65	73	76	82	43	91
LCS 240-211448/18-A		79	84	80	73	35	87

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TFT1 %Rec
240-59150-1	D-SD-WC-1	79
MB 240-211450/1-A		75
LCS 240-211450/2-A		97
180-50773-A-11-B MS		91
180-50773-A-11-C MSD		85

Surrogate	Acceptance Limits
TFT = Trifluorotoluene (Surr)	40-139

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH1 %Rec
240-59150-1	D-SD-WC-1	88
MB 240-211226/16-A		86
LCS 240-211226/17-A		83
240-59196-B-12-B MS		88
240-59196-B-12-C MSD		94

Surrogate	Acceptance Limits
OTPH = o-Terphenyl (Surr)	40-160

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
240-59150-1	D-SD-WC-1	83	80	85	93
MB 240-211299/3-A		76	73	75	78
LCS 240-211299/4-A		79	74	79	78
240-59150-1 MS	D-SD-WC-1 MS	90	99	86	101

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	34-121
DCB = DCB Decachlorobiphenyl	10-141

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX2 %Rec	DCB2 %Rec
240-59150-1	D-SD-WC-1	82	129
MB 240-211247/22-A		82	91
LCS 240-211247/23-A		74	81

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	13-134
DCB = DCB Decachlorobiphenyl	10-155

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
240-59150-1	D-SD-WC-1	64	64
MB 240-211300/3-A		66	58
LCS 240-211300/4-A		79	90
240-59150-1 MS	D-SD-WC-1 MS	66	53X

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	56-120

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211382

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LB 240-211257/1-A	Analysis Batch:	240-211382	Instrument ID:	A3UX12
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	U1248337.D
Dilution:	1.0	Leach Batch:	240-211257	Initial Weight/Volume:	0.1 mL
Analysis Date:	12/17/2015 1748	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 1748				
Leach Date:	12/16/2015 2000				

Analyte	Result	Qual	MDL	RL
1,1-Dichloroethene	0.0095	U	0.0095	0.025
1,2-Dichloroethane	0.011	U	0.011	0.025
2-Butanone (MEK)	0.029	U	0.029	0.25
Benzene	0.0065	U	0.0065	0.025
Carbon tetrachloride	0.0065	U	0.0065	0.025
Chlorobenzene	0.0075	U	0.0075	0.025
Chloroform	0.0080	U	0.0080	0.025
Tetrachloroethene	0.015	U	0.015	0.025
Trichloroethene	0.0085	U	0.0085	0.025
Vinyl chloride	0.011	U	0.011	0.025

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	80 - 121
4-Bromofluorobenzene (Surr)	81	70 - 124
Toluene-d8 (Surr)	94	80 - 120
Dibromofluoromethane (Surr)	90	80 - 128

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211382

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-211382/9	Analysis Batch:	240-211382	Instrument ID:	A3UX12
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	U1248338.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.1 mL
Analysis Date:	12/17/2015 1812	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 1812				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethene	1.00	0.921	92	71 - 133	
1,2-Dichloroethane	1.00	1.00	100	80 - 120	
2-Butanone (MEK)	2.00	1.62	81	49 - 120	
Benzene	1.00	1.00	100	80 - 120	
Carbon tetrachloride	1.00	0.807	81	54 - 122	
Chlorobenzene	1.00	1.06	106	80 - 120	
Chloroform	1.00	1.00	100	80 - 123	
Tetrachloroethene	1.00	1.01	101	79 - 134	
Trichloroethene	1.00	1.10	110	78 - 130	
Vinyl chloride	1.00	0.793	79	56 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	81	80 - 121
4-Bromofluorobenzene (Surr)	78	70 - 124
Toluene-d8 (Surr)	90	80 - 120
Dibromofluoromethane (Surr)	94	80 - 128

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211382

Method: 8260B
Preparation: 5030B
TCLP

MS Lab Sample ID:	240-59150-1	Analysis Batch:	240-211382	Instrument ID:	A3UX12
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	U1248355.D
Dilution:	1.0	Leach Batch:	240-211257	Initial Weight/Volume:	0.1 mL
Analysis Date:	12/18/2015 0046			Final Weight/Volume:	5 mL
Prep Date:	12/18/2015 0046				5 mL
Leach Date:	12/16/2015 2000				

MSD Lab Sample ID:	240-59150-1	Analysis Batch:	240-211382	Instrument ID:	A3UX12
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	U1248356.D
Dilution:	1.0	Leach Batch:	240-211257	Initial Weight/Volume:	0.1 mL
Analysis Date:	12/18/2015 0109			Final Weight/Volume:	5 mL
Prep Date:	12/18/2015 0109				5 mL
Leach Date:	12/16/2015 2000				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1-Dichloroethene	84	80	67 - 139	5	30		
1,2-Dichloroethane	99	92	80 - 120	8	30		
2-Butanone (MEK)	70	70	49 - 120	1	30		
Benzene	96	90	80 - 120	5	30		
Carbon tetrachloride	71	71	60 - 120	0	30		
Chlorobenzene	96	93	80 - 120	3	30		
Chloroform	96	92	80 - 124	5	30		
Tetrachloroethene	90	92	74 - 138	3	30		
Trichloroethene	100	101	75 - 134	1	30		
Vinyl chloride	75	71	51 - 120	5	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	86	80 - 121
4-Bromofluorobenzene (Surr)	77	84	70 - 124
Toluene-d8 (Surr)	95	93	80 - 120
Dibromofluoromethane (Surr)	93	88	80 - 128

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211382

Method: 8260B
Preparation: 5030B
TCLP

MS Lab Sample ID:	240-59150-1	Units:	mg/L	MSD Lab Sample ID:	240-59150-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/18/2015 0046			Analysis Date:	12/18/2015 0109
Prep Date:	12/18/2015 0046			Prep Date:	12/18/2015 0109
Leach Date:	12/16/2015 2000			Leach Date:	12/16/2015 2000

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1-Dichloroethene	0.0095	U	1.00	1.00	0.844	0.804
1,2-Dichloroethane	0.011	U	1.00	1.00	0.994	0.916
2-Butanone (MEK)	0.029	U	2.00	2.00	1.39	1.40
Benzene	0.0065	U	1.00	1.00	0.955	0.904
Carbon tetrachloride	0.0065	U	1.00	1.00	0.709	0.707
Chlorobenzene	0.0075	U	1.00	1.00	0.961	0.932
Chloroform	0.0080	U	1.00	1.00	0.965	0.917
Tetrachloroethene	0.015	U	1.00	1.00	0.896	0.921
Trichloroethene	0.0085	U	1.00	1.00	0.999	1.01
Vinyl chloride	0.011	U	1.00	1.00	0.749	0.714

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211550

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 240-211550/6	Analysis Batch:	240-211550	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	147123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	12/18/2015 1512	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.50	U	0.50	5.0
1,1,1-Trichloroethane	0.65	U	0.65	5.0
1,1,2,2-Tetrachloroethane	0.31	U	0.31	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.42	U	0.42	5.0
1,1-Dichloroethane	0.34	U	0.34	5.0
1,1-Dichloroethene	0.80	U	0.80	5.0
1,1-Dichloropropene	0.37	U	0.37	5.0
1,2,3-Trichlorobenzene	0.559	J	0.50	5.0
1,2,3-Trichloropropane	0.78	U	0.78	5.0
1,2,3-Trimethylbenzene	0.46	U	0.46	5.0
1,2,4-Trichlorobenzene	0.409	J	0.38	5.0
1,2,4-Trimethylbenzene	0.58	U	0.58	5.0
1,2-Dibromo-3-Chloropropane	2.7	U	2.7	10
1,2-Dichlorobenzene	0.34	U	0.34	5.0
1,2-Dichloroethane	0.46	U	0.46	5.0
1,2-Dichloropropane	0.14	U	0.14	5.0
1,3-Dichlorobenzene	0.69	U	0.69	5.0
1,3-Dichloropropane	0.40	U	0.40	5.0
1,4-Dichlorobenzene	0.28	U	0.28	5.0
2,2-Dichloropropane	0.44	U	0.44	5.0
2-Butanone (MEK)	1.1	U	1.1	20
2-Chloroethyl vinyl ether	0.64	U	0.64	50
2-Chlorotoluene	0.30	U	0.30	5.0
2-Hexanone	0.68	U	0.68	20
4-Chlorotoluene	0.26	U	0.26	5.0
p-Isopropyltoluene	0.41	U	0.41	5.0
4-Methyl-2-pentanone (MIBK)	1.2	U	1.2	20
Acetone	6.77	J	5.7	20
Benzene	0.90	U	0.90	5.0
Bromobenzene	0.33	U	0.33	5.0
Bromoform	0.24	U	0.24	5.0
Bromomethane	0.42	U	0.42	5.0
Carbon disulfide	0.59	U	0.59	5.0
Carbon tetrachloride	0.65	U	0.65	5.0
Chlorobenzene	0.53	U	0.53	5.0
Dibromochloromethane	0.37	U	0.37	5.0
Chloroethane	0.44	U	0.44	5.0
Chloroform	0.36	U	0.36	5.0
Chloromethane	0.79	U	0.79	5.0
cis-1,2-Dichloroethene	0.28	U	0.28	5.0
cis-1,3-Dichloropropene	0.71	U	0.71	5.0
Dibromomethane	0.42	U	0.42	5.0
Bromochloromethane	0.33	U	0.33	5.0
Dichlorodifluoromethane	0.28	U	0.28	5.0
Bromodichloromethane	0.29	U	0.29	5.0

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211550

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 240-211550/6	Analysis Batch:	240-211550	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	147123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	12/18/2015 1512	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol (TBA)	5.7	U	5.7	200
Ethylbenzene	0.32	U	0.32	5.0
Hexachlorobutadiene	0.40	U	0.40	5.0
Diisopropyl ether	0.59	U	0.59	10
Isopropylbenzene	0.20	U	0.20	5.0
Methyl tert-butyl ether	0.43	U	0.43	5.0
Methylene Chloride	2.80	J	0.74	5.0
m-Xylene & p-Xylene	0.42	U	0.42	10
Naphthalene	0.681	J	0.35	5.0
n-Butylbenzene	0.59	U	0.59	5.0
N-Propylbenzene	0.60	U	0.60	5.0
o-Xylene	0.57	U	0.57	5.0
sec-Butylbenzene	0.91	U	0.91	5.0
Styrene	0.40	U	0.40	5.0
Tert-amyl methyl ether	0.43	U	0.43	5.0
Ethyl t-butyl ether	0.41	U	0.41	5.0
Tetrachloroethene	0.80	U	0.80	5.0
Toluene	0.27	U	0.27	5.0
trans-1,2-Dichloroethene	0.32	U	0.32	5.0
trans-1,3-Dichloropropene	0.29	U	0.29	5.0
Trichloroethene	0.38	U	0.38	5.0
Trichlorofluoromethane	0.29	U	0.29	5.0
Vinyl acetate	0.66	U	0.66	10
Vinyl chloride	0.30	U	0.30	5.0
Xylenes, Total	0.54	U	0.54	10
tert-Butylbenzene	0.67	U	0.67	5.0
1,2-Dibromoethane	0.53	U	0.53	5.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	93	67 - 125
Dibromofluoromethane (Surr)	92	37 - 132
4-Bromofluorobenzene (Surr)	84	52 - 136
1,2-Dichloroethane-d4 (Surr)	92	58 - 123

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211550

Method: 8260C
Preparation: N/A

Lab Sample ID:	LCS 240-211550/5	Analysis Batch:	240-211550	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	147122.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	12/18/2015 1451	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	50.0	55.2	110	80 - 120	
1,1,1-Trichloroethane	50.0	52.3	105	77 - 126	
1,1,2,2-Tetrachloroethane	50.0	52.0	104	77 - 123	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.2	102	80 - 138	
1,1-Dichloroethane	50.0	49.6	99	76 - 120	
1,1-Dichloroethene	50.0	46.7	93	75 - 135	
1,1-Dichloropropene	50.0	55.7	111	80 - 120	
1,2,3-Trichlorobenzene	50.0	48.3	97	61 - 121	
1,2,3-Trichloropropane	50.0	55.3	111	80 - 126	
1,2,4-Trichlorobenzene	50.0	50.2	100	64 - 124	
1,2,4-Trimethylbenzene	50.0	52.5	105	80 - 129	
1,2-Dibromo-3-Chloropropane	50.0	52.3	105	61 - 132	
1,2-Dichlorobenzene	50.0	49.9	100	76 - 120	
1,2-Dichloroethane	50.0	49.7	99	72 - 120	
1,2-Dichloropropane	50.0	50.7	101	80 - 120	
1,3-Dichlorobenzene	50.0	49.7	99	78 - 120	
1,3-Dichloropropane	50.0	51.2	102	80 - 120	
1,4-Dichlorobenzene	50.0	48.0	96	75 - 120	
2,2-Dichloropropane	50.0	51.7	103	69 - 135	
2-Butanone (MEK)	100	99.9	100	52 - 131	
2-Chloroethyl vinyl ether	50.0	57.6	115	28 - 173	
2-Chlorotoluene	50.0	51.4	103	78 - 120	
2-Hexanone	100	99.6	100	64 - 136	
4-Chlorotoluene	50.0	51.2	102	79 - 120	
p-Isopropyltoluene	50.0	51.5	103	77 - 131	
4-Methyl-2-pentanone (MIBK)	100	99.3	99	67 - 135	
Acetone	100	94.9	95	41 - 137	
Benzene	50.0	50.7	101	79 - 120	
Bromobenzene	50.0	51.5	103	80 - 120	
Bromoform	50.0	48.6	97	62 - 133	
Bromomethane	20.0	19.1	95	42 - 136	
Carbon disulfide	50.0	51.9	104	62 - 146	
Carbon tetrachloride	50.0	53.0	106	71 - 129	
Chlorobenzene	50.0	49.6	99	78 - 120	
Dibromochloromethane	50.0	52.8	106	72 - 127	
Chloroethane	20.0	17.7	88	58 - 120	
Chloroform	50.0	47.0	94	77 - 120	
Chloromethane	20.0	16.9	84	50 - 120	
cis-1,2-Dichloroethene	50.0	50.7	101	76 - 120	
cis-1,3-Dichloropropene	50.0	54.4	109	74 - 128	
Dibromomethane	50.0	52.5	105	80 - 120	
Bromochloromethane	50.0	49.7	99	79 - 120	
Dichlorodifluoromethane	20.0	13.3	66	26 - 120	
Bromodichloromethane	50.0	52.1	104	80 - 122	
tert-Butyl alcohol (TBA)	500	472	94	60 - 125	
Ethylbenzene	50.0	53.7	107	79 - 120	

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211550

Method: 8260C
Preparation: N/A

Lab Sample ID:	LCS 240-211550/5	Analysis Batch:	240-211550	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	147122.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	12/18/2015 1451	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	50.0	52.9	106	54 - 131	
Isopropylbenzene	50.0	54.2	108	76 - 122	
Methyl tert-butyl ether	50.0	52.5	105	49 - 165	
Methylene Chloride	50.0	46.9	94	75 - 120	
m-Xylene & p-Xylene	50.0	52.5	105	80 - 120	
Naphthalene	50.0	51.6	103	65 - 123	
n-Butylbenzene	50.0	52.0	104	68 - 135	
N-Propylbenzene	50.0	52.8	106	80 - 129	
o-Xylene	50.0	53.9	108	80 - 120	
sec-Butylbenzene	50.0	53.5	107	74 - 129	
Styrene	50.0	51.0	102	80 - 120	
Tetrachloroethene	50.0	50.6	101	79 - 120	
Toluene	50.0	52.8	106	75 - 120	
trans-1,2-Dichloroethene	50.0	52.2	104	78 - 120	
trans-1,3-Dichloropropene	50.0	56.7	113	73 - 131	
Trichloroethene	50.0	52.2	104	79 - 120	
Trichlorofluoromethane	20.0	18.7	94	57 - 146	
Vinyl acetate	50.0	44.4	89	70 - 130	
Vinyl chloride	20.0	17.5	88	57 - 120	
Xylenes, Total	100	106	106	80 - 120	
tert-Butylbenzene	50.0	51.9	104	76 - 126	
1,2-Dibromoethane	50.0	54.7	109	80 - 120	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	91	67 - 125
Dibromofluoromethane (Surr)	89	37 - 132
4-Bromofluorobenzene (Surr)	84	52 - 136
1,2-Dichloroethane-d4 (Surr)	85	58 - 123

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	87	67 - 125
Dibromofluoromethane (Surr)	85	37 - 132
4-Bromofluorobenzene (Surr)	84	52 - 136
1,2-Dichloroethane-d4 (Surr)	85	58 - 123

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211298

Method: 8270C
Preparation: 3510C

Lab Sample ID:	MB 240-211298/3-A	Analysis Batch:	240-211628	Instrument ID:	A4HP7
Client Matrix:	Water	Prep Batch:	240-211298	Lab File ID:	51220005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/20/2015 1138	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	12/17/2015 1039			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,4-Dichlorobenzene	0.00034	U	0.00034	0.0040
2,4,5-Trichlorophenol	0.00030	U	0.00030	0.0040
2,4,6-Trichlorophenol	0.00024	U	0.00024	0.0040
2,4-Dinitrotoluene	0.00025	U	0.00025	0.0040
Hexachlorobenzene	0.000085	U	0.000085	0.00080
Hexachlorobutadiene	0.00027	U	0.00027	0.0040
Hexachloroethane	0.00019	U	0.00019	0.0040
3 & 4 Methylphenol	0.00080	U	0.00080	0.0040
2-Methylphenol	0.00017	U	0.00017	0.0040
Nitrobenzene	0.000040	U	0.000040	0.0040
Pentachlorophenol	0.00027	U	0.00027	0.016
Pyridine	0.00035	U	0.00035	0.0040

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	71	30 - 110
2-Fluorophenol (Surr)	57	20 - 110
2,4,6-Tribromophenol (Surr)	83	23 - 110
Nitrobenzene-d5 (Surr)	80	28 - 110
Phenol-d5 (Surr)	40	21 - 110
Terphenyl-d14 (Surr)	78	48 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211298

Method: 8270C
Preparation: 3510C

Lab Sample ID:	LCS 240-211298/4-A	Analysis Batch:	240-211628	Instrument ID:	A4HP7
Client Matrix:	Water	Prep Batch:	240-211298	Lab File ID:	51220006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/20/2015 1201	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	12/17/2015 1039			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dichlorobenzene	0.0800	0.0624	78	52 - 110	
2,4,5-Trichlorophenol	0.0800	0.0737	92	51 - 110	
2,4,6-Trichlorophenol	0.0800	0.0719	90	46 - 110	
2,4-Dinitrotoluene	0.0800	0.0685	86	54 - 110	
Hexachlorobenzene	0.0800	0.0748	93	50 - 110	
Hexachlorobutadiene	0.0800	0.0601	75	34 - 110	
Hexachloroethane	0.0800	0.0584	73	41 - 110	
3 & 4 Methylphenol	0.0800	0.0602	75	48 - 110	
2-Methylphenol	0.0800	0.0630	79	44 - 111	
Nitrobenzene	0.0800	0.0696	87	40 - 110	
Pentachlorophenol	0.160	0.144	90	12 - 110	
Pyridine	0.0800	0.0510	64	30 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	80	30 - 110
2-Fluorophenol (Surr)	74	20 - 110
2,4,6-Tribromophenol (Surr)	90	23 - 110
Nitrobenzene-d5 (Surr)	91	28 - 110
Phenol-d5 (Surr)	51	21 - 110
Terphenyl-d14 (Surr)	91	48 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike - Batch: 240-211298

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	240-59150-1	Analysis Batch:	240-211628	Instrument ID:	A4HP7
Client Matrix:	Solid	Prep Batch:	240-211298	Lab File ID:	51220012.D
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	250 mL
Analysis Date:	12/20/2015 1420	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	12/17/2015 1039			Injection Volume:	1 uL
Leach Date:	12/16/2015 1835				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dichlorobenzene	0.00034	U	0.0800	0.0504	63	31 - 110	
2,4,5-Trichlorophenol	0.00030	U	0.0800	0.0578	72	41 - 110	
2,4,6-Trichlorophenol	0.00024	U	0.0800	0.0586	73	35 - 110	
2,4-Dinitrotoluene	0.00025	U	0.0800	0.0573	72	42 - 110	
Hexachlorobenzene	0.000085	U	0.0800	0.0626	78	42 - 110	
Hexachlorobutadiene	0.00027	U	0.0800	0.0492	61	28 - 110	
Hexachloroethane	0.00019	U	0.0800	0.0468	59	26 - 110	
3 & 4 Methylphenol	0.0013	J	0.0800	0.0486	59	29 - 110	
2-Methylphenol	0.00017	U	0.0800	0.0498	62	33 - 112	
Nitrobenzene	0.000040	U	0.0800	0.0542	68	32 - 110	
Pentachlorophenol	0.00027	U	0.160	0.128	80	10 - 124	
Pyridine	0.00035	U	0.0800	0.0447	56	21 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	70	30 - 110
2-Fluorophenol (Surr)	57	20 - 110
2,4,6-Tribromophenol (Surr)	70	23 - 110
Nitrobenzene-d5 (Surr)	74	28 - 110
Phenol-d5 (Surr)	41	21 - 110
Terphenyl-d14 (Surr)	75	48 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211448

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-211448/17-A	Analysis Batch:	240-211748	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-211448	Lab File ID:	51221009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/21/2015 1327	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/18/2015 0726			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1'-Biphenyl	3.5	U	3.5	50
bis (2-chloroisopropyl) ether	9.5	U	9.5	100
2,4,5-Trichlorophenol	25	U	25	150
2,4,6-Trichlorophenol	8.9	U	8.9	150
2,4-Dichlorophenol	20	U	20	150
2,4-Dimethylphenol	20	U	20	150
2,4-Dinitrophenol	21	U	21	330
2,4-Dinitrotoluene	17	U	17	200
2,6-Dinitrotoluene	21	U	21	200
2-Chloronaphthalene	0.45	U	0.45	50
2-Chlorophenol	8.2	U	8.2	50
2-Methylnaphthalene	0.50	U	0.50	6.7
2-Methylphenol	11	U	11	200
2-Nitroaniline	9.1	U	9.1	200
2-Nitrophenol	8.3	U	8.3	50
3,3'-Dichlorobenzidine	18	U	18	100
3-Nitroaniline	16	U	16	200
4,6-Dinitro-2-methylphenol	9.2	U	9.2	150
4-Bromophenyl phenyl ether	13	U	13	50
4-Chloro-3-methylphenol	21	U	21	150
4-Chloroaniline	17	U	17	150
4-Chlorophenyl phenyl ether	13	U	13	50
4-Nitroaniline	26	U	26	200
4-Nitrophenol	17	U	17	330
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Acetophenone	9.2	U	9.2	100
Anthracene	0.78	U	0.78	6.7
Atrazine	9.1	U	9.1	200
Benzaldehyde	12	U	12	100
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Bis(2-chloroethoxy)methane	22	U	22	100
Bis(2-chloroethyl)ether	2.0	U	2.0	100
Bis(2-ethylhexyl) phthalate	19	U	19	70
Butyl benzyl phthalate	10	U	10	70
Caprolactam	37	U	37	330
Carbazole	27	U	27	50
Chrysene	1.1	U	1.1	6.7
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Dibenzofuran	0.66	U	0.66	50
Diethyl phthalate	16	U	16	70

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211448

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-211448/17-A	Analysis Batch:	240-211748	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-211448	Lab File ID:	51221009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/21/2015 1327	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/18/2015 0726			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dimethyl phthalate	17	U	17	70
Di-n-butyl phthalate	15	U	15	70
Di-n-octyl phthalate	7.9	U	7.9	70
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Hexachlorobenzene	2.1	U	2.1	6.7
Hexachlorobutadiene	5.6	U	5.6	50
Hexachlorocyclopentadiene	8.1	U	8.1	330
Hexachloroethane	9.0	U	9.0	50
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Isophorone	13.6	J	13	50
N-Nitrosodi-n-propylamine	6.3	U	6.3	50
N-Nitrosodiphenylamine	21	U	21	50
Naphthalene	0.82	U	0.82	6.7
Nitrobenzene	2.2	U	2.2	100
Pentachlorophenol	9.1	U	9.1	150
Phenanthrene	0.73	U	0.73	6.7
Phenol	7.3	U	7.3	50
Pyrene	0.44	U	0.44	6.7
3 & 4 Methylphenol	20	U	20	400

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	91	36 - 110
Phenol-d5 (Surr)	73	26 - 110
Nitrobenzene-d5 (Surr)	76	20 - 110
2-Fluorophenol (Surr)	65	24 - 110
2-Fluorobiphenyl (Surr)	82	24 - 110
2,4,6-Tribromophenol (Surr)	43	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211448

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-211448/18-A	Analysis Batch:	240-211748	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-211448	Lab File ID:	51221010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/21/2015 1351	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/18/2015 0726			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	667	491	74	35 - 110	
bis (2-chloroisopropyl) ether	667	538	81	29 - 110	
2,4,5-Trichlorophenol	667	341	51	25 - 110	
2,4,6-Trichlorophenol	667	234	35	12 - 110	
2,4-Dichlorophenol	667	496	74	39 - 110	
2,4-Dimethylphenol	667	487	73	29 - 110	
2,4-Dinitrophenol	1330	311	23	10 - 110	J
2,4-Dinitrotoluene	667	593	89	48 - 110	
2,6-Dinitrotoluene	667	557	84	45 - 110	
2-Chloronaphthalene	667	492	74	32 - 110	
2-Chlorophenol	667	529	79	37 - 110	
2-Methylnaphthalene	667	519	78	36 - 110	
2-Methylphenol	667	551	83	41 - 110	
2-Nitroaniline	667	561	84	45 - 110	
2-Nitrophenol	667	557	84	34 - 110	
3,3'-Dichlorobenzidine	1330	1130	85	28 - 110	
3-Nitroaniline	667	579	87	44 - 110	
4,6-Dinitro-2-methylphenol	1330	560	42	10 - 110	
4-Bromophenyl phenyl ether	667	581	87	39 - 110	
4-Chloro-3-methylphenol	667	554	83	48 - 110	
4-Chloroaniline	667	476	71	30 - 110	
4-Chlorophenyl phenyl ether	667	554	83	40 - 110	
4-Nitroaniline	667	621	93	48 - 110	
4-Nitrophenol	1330	888	67	28 - 110	
Acenaphthene	667	517	78	38 - 110	
Acenaphthylene	667	515	77	40 - 110	
Acetophenone	667	520	78	40 - 110	
Anthracene	667	568	85	48 - 110	
Atrazine	1330	1230	92	54 - 120	
Benzaldehyde	1330	1070	81	32 - 110	
Benzo[a]anthracene	667	587	88	50 - 110	
Benzo[a]pyrene	667	602	90	44 - 110	
Benzo[b]fluoranthene	667	605	91	43 - 110	
Benzo[g,h,i]perylene	667	599	90	51 - 110	
Benzo[k]fluoranthene	667	626	94	38 - 105	
Bis(2-chloroethoxy)methane	667	526	79	32 - 110	
Bis(2-chloroethyl)ether	667	517	78	34 - 110	
Bis(2-ethylhexyl) phthalate	667	625	94	50 - 110	
Butyl benzyl phthalate	667	622	93	51 - 110	
Caprolactam	1330	1220	92	44 - 114	
Carbazole	667	590	89	50 - 110	
Chrysene	667	596	89	50 - 110	
Dibenz(a,h)anthracene	667	645	97	51 - 110	
Dibenzofuran	667	522	78	43 - 110	
Diethyl phthalate	667	562	84	52 - 110	
Dimethyl phthalate	667	546	82	50 - 110	

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211448

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-211448/18-A	Analysis Batch:	240-211748	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-211448	Lab File ID:	51221010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/21/2015 1351	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/18/2015 0726			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Di-n-butyl phthalate	667	624	94	51 - 110	
Di-n-octyl phthalate	667	602	90	48 - 110	
Fluoranthene	667	599	90	51 - 110	
Fluorene	667	501	75	46 - 110	
Hexachlorobenzene	667	571	86	43 - 110	
Hexachlorobutadiene	667	511	77	29 - 110	
Hexachlorocyclopentadiene	667	385	58	12 - 110	
Hexachloroethane	667	494	74	30 - 110	
Indeno[1,2,3-cd]pyrene	667	627	94	50 - 110	
Isophorone	667	526	79	36 - 110	
N-Nitrosodi-n-propylamine	667	527	79	38 - 110	
N-Nitrosodiphenylamine	1330	1150	86	46 - 110	
Naphthalene	667	505	76	36 - 110	
Nitrobenzene	667	521	78	32 - 110	
Pentachlorophenol	1330	770	58	10 - 110	
Phenanthrene	667	567	85	49 - 110	
Phenol	667	521	78	38 - 110	
Pyrene	667	577	87	49 - 110	
3 & 4 Methylphenol	667	521	78	40 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	87	36 - 110
Phenol-d5 (Surr)	84	26 - 110
Nitrobenzene-d5 (Surr)	80	20 - 110
2-Fluorophenol (Surr)	79	24 - 110
2-Fluorobiphenyl (Surr)	73	24 - 110
2,4,6-Tribromophenol (Surr)	35	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211450

Method: 8015C
Preparation: 5030A

Lab Sample ID:	MB 240-211450/1-A	Analysis Batch:	240-211453	Instrument ID:	AFID
Client Matrix:	Solid	Prep Batch:	240-211450	Lab File ID:	A0121805.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	12/18/2015 1042	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	12/18/2015 0747			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline Range Organics [C6 - C10]	46	U	46	100

Surrogate	% Rec	Acceptance Limits
Trifluorotoluene (Surr)	75	40 - 139

Lab Control Sample - Batch: 240-211450

Method: 8015C
Preparation: 5030A

Lab Sample ID:	LCS 240-211450/2-A	Analysis Batch:	240-211453	Instrument ID:	AFID
Client Matrix:	Solid	Prep Batch:	240-211450	Lab File ID:	A0121806.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	12/18/2015 1118	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	12/18/2015 0747			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Gasoline Range Organics [C6 - C10]	800	795	99	74 - 120	

Surrogate	% Rec	Acceptance Limits
Trifluorotoluene (Surr)	97	40 - 139

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211450

Method: 8015C
Preparation: 5030A

MS Lab Sample ID:	180-50773-A-11-B MS	Analysis Batch:	240-211453	Instrument ID:	AFID
Client Matrix:	Solid	Prep Batch:	240-211450	Lab File ID:	A0121823.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.03 g
Analysis Date:	12/18/2015 2147			Final Weight/Volume:	5 mL
Prep Date:	12/18/2015 0747			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	180-50773-A-11-C MSD	Analysis Batch:	240-211453	Instrument ID:	AFID
Client Matrix:	Solid	Prep Batch:	240-211450	Lab File ID:	A0121824.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	12/18/2015 2222			Final Weight/Volume:	5 mL
Prep Date:	12/18/2015 0747			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Gasoline Range Organics [C6 - C10]	90	82	10 - 136	9	40		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Trifluorotoluene (Surr)	91	85	40 - 139

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211450

Method: 8015C
Preparation: 5030A

MS Lab Sample ID:	180-50773-A-11-B MS	Units:	ug/Kg	MSD Lab Sample ID:	180-50773-A-11-C MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/18/2015 2147			Analysis Date:	12/18/2015 2222
Prep Date:	12/18/2015 0747			Prep Date:	12/18/2015 0747
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Gasoline Range Organics [C6 - C10]	96	U	1660	1660	1500	1360

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211226

Method: 8015C
Preparation: 3540C

Lab Sample ID:	MB 240-211226/16-A	Analysis Batch:	240-211542	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-211226	Lab File ID:	P5F21812.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/18/2015 1952	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 0740			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)	9.02	J	6.4	17

Surrogate	% Rec	Acceptance Limits
o-Terphenyl (Surr)	86	40 - 160

Lab Control Sample - Batch: 240-211226

Method: 8015C
Preparation: 3540C

Lab Sample ID:	LCS 240-211226/17-A	Analysis Batch:	240-211542	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-211226	Lab File ID:	P5F21813.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/18/2015 2023	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 0740			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel	84.0	62.0	74	52 - 120	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl (Surr)	83	40 - 160

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211226

Method: 8015C
Preparation: 3540C

MS Lab Sample ID:	240-59196-B-12-B MS	Analysis Batch:	240-211542	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-211226	Lab File ID:	P5F21827.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.77 g
Analysis Date:	12/19/2015 0337			Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 0740			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	240-59196-B-12-C MSD	Analysis Batch:	240-211542	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-211226	Lab File ID:	P5F21828.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.59 g
Analysis Date:	12/19/2015 0408			Final Weight/Volume:	5 mL
Prep Date:	12/17/2015 0740			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel	69	72	10 - 124	5	40		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl (Surr)	88	94	40 - 160

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211226

Method: 8015C
Preparation: 3540C

MS Lab Sample ID:	240-59196-B-12-B MS	Units:	mg/Kg	MSD Lab Sample ID:	240-59196-B-12-C MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/19/2015 0337			Analysis Date:	12/19/2015 0408
Prep Date:	12/17/2015 0740			Prep Date:	12/17/2015 0740
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Diesel	21	97.0	97.6	87.7	91.8

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211299

Method: 8081B
Preparation: 3520C

Lab Sample ID:	MB 240-211299/3-A	Analysis Batch:	240-211762	Instrument ID:	A2HP3
Client Matrix:	Water	Prep Batch:	240-211299	Lab File ID:	P3122117.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/21/2015 1737	Units:	mg/L	Final Weight/Volume:	3 mL
Prep Date:	12/17/2015 1041			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane (technical)	0.00014	U	0.00014	0.0050
Endrin	0.000013	U	0.000013	0.00050
Heptachlor	0.000014	U	0.000014	0.00050
Heptachlor epoxide	0.000015	U	0.000015	0.00050
gamma-BHC (Lindane)	0.000013	U	0.000013	0.00050
Methoxychlor	0.000013	U	0.000013	0.0010
Toxaphene	0.00020	U	0.00020	0.020

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	78	10 - 141
Tetrachloro-m-xylene	73	34 - 121

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	75	10 - 141
Tetrachloro-m-xylene	76	34 - 121

Lab Control Sample - Batch: 240-211299

Method: 8081B
Preparation: 3520C

Lab Sample ID:	LCS 240-211299/4-A	Analysis Batch:	240-211762	Instrument ID:	A2HP3
Client Matrix:	Water	Prep Batch:	240-211299	Lab File ID:	P3122118.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/21/2015 1800	Units:	mg/L	Final Weight/Volume:	3 mL
Prep Date:	12/17/2015 1041			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Endrin	0.000400	0.000341	85	49 - 150	J
Heptachlor	0.000400	0.000293	73	40 - 129	J
Heptachlor epoxide	0.000400	0.000334	84	42 - 137	J
gamma-BHC (Lindane)	0.000400	0.000277	69	22 - 144	J
Methoxychlor	0.000800	0.000641	80	35 - 147	J

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	78	10 - 141
Tetrachloro-m-xylene	74	34 - 121

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	79	10 - 141
Tetrachloro-m-xylene	79	34 - 121

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike - Batch: 240-211299

Method: 8081B
Preparation: 3520C
TCLP

Lab Sample ID:	240-59150-1	Analysis Batch:	240-211762	Instrument ID:	A2HP3
Client Matrix:	Solid	Prep Batch:	240-211299	Lab File ID:	P3122116.D
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	250 mL
Analysis Date:	12/21/2015 1713	Units:	mg/L	Final Weight/Volume:	3 mL
Prep Date:	12/17/2015 1041			Injection Volume:	1 uL
Leach Date:	12/16/2015 1835			Column ID:	PRIMARY

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Endrin	0.000013	U	0.000400	0.000395	99	43 - 138	J
Heptachlor	0.000014	U	0.000400	0.000380	95	42 - 120	J
Heptachlor epoxide	0.000015	U	0.000400	0.000389	97	48 - 120	J
gamma-BHC (Lindane)	0.000013	U	0.000400	0.000228	57	32 - 120	J p
Methoxychlor	0.000013	U	0.000800	0.000726	91	45 - 127	J

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	101	10 - 141
Tetrachloro-m-xylene	99	34 - 121

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	86	10 - 141
Tetrachloro-m-xylene	90	34 - 121

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211247

Method: 8082A
Preparation: 3540C

Lab Sample ID:	MB 240-211247/22-A	Analysis Batch:	240-211637	Instrument ID:	A2HP12
Client Matrix:	Solid	Prep Batch:	240-211247	Lab File ID:	P1200009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/20/2015 1529	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 0824			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor-1016	12	U	12	33
Aroclor-1221	16	U	16	33
Aroclor-1232	20	U	20	33
Aroclor-1242	11	U	11	33
Aroclor-1248	8.0	U	8.0	33
Aroclor-1254	14	U	14	33
Aroclor-1260	9.0	U	9.0	33

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	82	13 - 134
DCB Decachlorobiphenyl	91	10 - 155

Lab Control Sample - Batch: 240-211247

Method: 8082A
Preparation: 3540C

Lab Sample ID:	LCS 240-211247/23-A	Analysis Batch:	240-211637	Instrument ID:	A2HP12
Client Matrix:	Solid	Prep Batch:	240-211247	Lab File ID:	P1200010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	12/20/2015 1547	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 0824			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	333	239	72	51 - 120	
Aroclor-1260	333	241	72	48 - 120	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	74	13 - 134
DCB Decachlorobiphenyl	81	10 - 155

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211300

Method: 8151A
Preparation: 8151A

Lab Sample ID:	MB 240-211300/3-A	Analysis Batch:	240-211535	Instrument ID:	A2HP1
Client Matrix:	Water	Prep Batch:	240-211300	Lab File ID:	P1121814.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/18/2015 2048	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 1042			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.0019	U	0.0019	0.0040
Silvex (2,4,5-TP)	0.00027	U	0.00027	0.0010

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	66	56 - 120

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	58	56 - 120

Lab Control Sample - Batch: 240-211300

Method: 8151A
Preparation: 8151A

Lab Sample ID:	LCS 240-211300/4-A	Analysis Batch:	240-211535	Instrument ID:	A2HP1
Client Matrix:	Water	Prep Batch:	240-211300	Lab File ID:	P1121815.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/18/2015 2114	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 1042			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	0.0200	0.0160	80	50 - 120	
Silvex (2,4,5-TP)	0.00500	0.00397	79	45 - 129	

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	79	56 - 120

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	90	56 - 120

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike - Batch: 240-211300

Method: 8151A
Preparation: 8151A
TCLP

Lab Sample ID:	240-59150-1	Analysis Batch:	240-211535	Instrument ID:	A2HP1
Client Matrix:	Solid	Prep Batch:	240-211300	Lab File ID:	P1121817.D
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	100 mL
Analysis Date:	12/18/2015 2205	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 1042			Injection Volume:	1 uL
Leach Date:	12/16/2015 1835			Column ID:	PRIMARY

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	0.0019	U	0.0200	0.0128	64	44 - 124	
Silvex (2,4,5-TP)	0.00027	U	0.00500	0.00280	56	35 - 135	

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	66	56 - 120

Surrogate	% Rec		Acceptance Limits
2,4-Dichlorophenylacetic acid	53	X	56 - 120

Client: Tetra Tech, Inc. Job Number: 240-59150-1

TCLP SPLPE Leachate Blank - Batch: 240-211319

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 240-211244/1-B	Analysis Batch:	240-211692	Instrument ID:	I12
Client Matrix:	Solid	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1340	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	12/16/2015 1835				

Analyte	Result	Qual	MDL	RL
Arsenic	0.0029	U	0.0029	0.50
Barium	0.00133	J	0.0010	10
Cadmium	0.00014	U	0.00014	0.10
Chromium	0.00055	U	0.00055	0.50
Lead	0.0019	U	0.0019	0.50
Selenium	0.0040	U	0.0040	0.25
Silver	0.00092	U	0.00092	0.50

Method Blank - Batch: 240-211319

Method: 6010B
Preparation: 3010A

Lab Sample ID:	MB 240-211319/2-A	Analysis Batch:	240-211692	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1344	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	0.0029	U	0.0029	0.50
Barium	0.0010	U	0.0010	10
Cadmium	0.00014	U	0.00014	0.10
Chromium	0.00055	U	0.00055	0.50
Lead	0.0019	U	0.0019	0.50
Selenium	0.0040	U	0.0040	0.25
Silver	0.00092	U	0.00092	0.50

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Control Sample - Batch: 240-211319

Method: 6010B
Preparation: 3010A

Lab Sample ID:	LCS 240-211319/3-A	Analysis Batch:	240-211692	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1348	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	2.00	2.31	116	50 - 150	
Barium	2.00	2.09	105	50 - 150	J
Cadmium	0.0500	0.0557	111	50 - 150	J
Chromium	0.200	0.212	106	50 - 150	J
Lead	0.500	0.488	98	50 - 150	J
Selenium	2.00	2.38	119	50 - 150	
Silver	0.0500	0.0581	116	50 - 150	J

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211319

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	240-59150-1	Analysis Batch:	240-211692	Instrument ID:	I12
Client Matrix:	Solid	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	5.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1400			Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	12/16/2015 1835				

MSD Lab Sample ID:	240-59150-1	Analysis Batch:	240-211692	Instrument ID:	I12
Client Matrix:	Solid	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	5.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1412			Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	12/16/2015 1835				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	115	103	75 - 125	11	20		
Barium	108	96	75 - 125	12	20		J
Cadmium	113	102	75 - 125	10	20		
Chromium	110	99	75 - 125	10	20		
Lead	107	96	75 - 125	10	20		
Selenium	118	104	75 - 125	12	20	J	J
Silver	111	100	75 - 125	11	20	J	J

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211319

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	240-59150-1	Units: mg/L	
Client Matrix:	Solid		
Dilution:	5.0		
Analysis Date:	12/18/2015 1400		
Prep Date:	12/17/2015 1113		
Leach Date:	12/16/2015 1835		

MSD Lab Sample ID:	240-59150-1
Client Matrix:	Solid
Dilution:	5.0
Analysis Date:	12/18/2015 1412
Prep Date:	12/17/2015 1113
Leach Date:	12/16/2015 1835

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Arsenic	0.012	J	5.00	5.00	5.77		5.17	
Barium	0.26	J	50.0	50.0	54.1		48.1	J
Cadmium	0.015	J	1.00	1.00	1.14		1.04	
Chromium	0.0018	J	5.00	5.00	5.49		4.97	
Lead	0.31	J	5.00	5.00	5.67		5.11	
Selenium	0.0069	J	1.00	1.00	1.18	J	1.05	J
Silver	0.00092	U	1.00	1.00	1.11	J	0.996	J

Serial Dilution - Batch: 240-211319

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	240-59150-1	Analysis Batch:	240-211692	Instrument ID:	I12
Client Matrix:	Solid	Prep Batch:	240-211319	Lab File ID:	I12121815A.asc
Dilution:	5.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/18/2015 1356	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1113				
Leach Date:	12/16/2015 1835				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Arsenic	0.012	J	0.015	NC	10	U
Barium	0.26	J	0.259	0.55	10	J
Cadmium	0.015	J	0.0144	1.4	10	J
Chromium	0.0018	J	0.0028	NC	10	U
Lead	0.31	J	0.330	7.1	10	J
Selenium	0.0069	J	0.020	NC	10	U
Silver	0.00092	U	0.0046	NC	10	U

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211321

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 240-211321/1-A	Analysis Batch:	240-211528	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-211321	Lab File ID:	I9121815A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	12/18/2015 1151	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1120				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	0.41	U	0.41	1.5
Cadmium	0.021	U	0.021	0.50
Barium	0.41	U	0.41	20
Silver	0.063	U	0.063	1.0
Lead	0.0341	J	0.022	1.0
Selenium	0.34	U	0.34	2.0
Chromium	0.192	J	0.075	1.0

Lab Control Sample - Batch: 240-211321

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 240-211321/2-A	Analysis Batch:	240-211528	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-211321	Lab File ID:	I9121815A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	12/18/2015 1155	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1120				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	200	210	105	80 - 120	
Cadmium	5.00	5.18	104	80 - 120	
Barium	200	197	99	80 - 120	
Silver	5.00	4.99	100	80 - 120	
Lead	50.0	51.9	104	80 - 120	
Selenium	200	209	105	80 - 120	
Chromium	20.0	19.8	99	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-59150-1

TCLP SPLPE Leachate Blank - Batch: 240-211320

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 240-211244/1-C	Analysis Batch:	240-211362	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-211320	Lab File ID:	121715AH1.PRN
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/17/2015 1641	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1400				
Leach Date:	12/16/2015 1835				

Analyte	Result	Qual	MDL	RL
Mercury	0.000090	U	0.000090	0.0020

Method Blank - Batch: 240-211320

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 240-211320/2-A	Analysis Batch:	240-211362	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-211320	Lab File ID:	121715AH1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/17/2015 1642	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.000090	U	0.000090	0.0020

Lab Control Sample - Batch: 240-211320

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 240-211320/3-A	Analysis Batch:	240-211362	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-211320	Lab File ID:	121715AH1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/17/2015 1644	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00502	100	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211320

Method: 7470A
Preparation: 7470A
TCLP

MS Lab Sample ID:	240-59150-1	Analysis Batch:	240-211362	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-211320	Lab File ID:	121715AH1.PRN
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/17/2015 1647			Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1400				
Leach Date:	12/16/2015 1835				

MSD Lab Sample ID:	240-59150-1	Analysis Batch:	240-211362	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-211320	Lab File ID:	121715AH1.PRN
Dilution:	1.0	Leach Batch:	240-211244	Initial Weight/Volume:	50 mL
Analysis Date:	12/17/2015 1648			Final Weight/Volume:	50 mL
Prep Date:	12/17/2015 1400				
Leach Date:	12/16/2015 1835				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	94	84	80 - 120	11	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211320

Method: 7470A
Preparation: 7470A
TCLP

MS Lab Sample ID:	240-59150-1	Units:	mg/L	MSD Lab Sample ID:	240-59150-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/17/2015 1647			Analysis Date:	12/17/2015 1648
Prep Date:	12/17/2015 1400			Prep Date:	12/17/2015 1400
Leach Date:	12/16/2015 1835			Leach Date:	12/16/2015 1835

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.000090 U	0.00500	0.00500	0.00468	0.00419

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211344

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 240-211344/1-A	Analysis Batch:	240-211442	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-211344	Lab File ID:	121815AH4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	12/18/2015 0539	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1455				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.014	U	0.014	0.10

Lab Control Sample - Batch: 240-211344

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 240-211344/2-A	Analysis Batch:	240-211442	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-211344	Lab File ID:	121815AH4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	12/18/2015 0541	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1455				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.833	0.839	101	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211344

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	240-59175-H-1-C MS	Analysis Batch:	240-211442	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-211344	Lab File ID:	121815AH4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.56 g
Analysis Date:	12/18/2015 0543			Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1455				
Leach Date:	N/A				

MSD Lab Sample ID:	240-59175-H-1-D MSD	Analysis Batch:	240-211442	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-211344	Lab File ID:	121815AH4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.56 g
Analysis Date:	12/18/2015 0544			Final Weight/Volume:	100 mL
Prep Date:	12/17/2015 1455				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	95	100	80 - 120	4	20		

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211344

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	240-59175-H-1-C MS	Units: mg/Kg	MSD Lab Sample ID:	240-59175-H-1-D MSD	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	12/18/2015 0543		Analysis Date:	12/18/2015 0544	
Prep Date:	12/17/2015 1455		Prep Date:	12/17/2015 1455	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.053	J	0.217	0.217	0.260	0.271

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 240-211224

Method: 9023
Preparation: 9023

Lab Sample ID:	MB 240-211224/3-A	Analysis Batch:	240-211352	Instrument ID:	BRIAN
Client Matrix:	Solid	Prep Batch:	240-211224	Lab File ID:	1217151.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.03 g
Analysis Date:	12/17/2015 0937	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 0655				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Halogens, Extractable Organic	32	U	32	200

Lab Control Sample - Batch: 240-211224

Method: 9023
Preparation: 9023

Lab Sample ID:	LCS 240-211224/4-A	Analysis Batch:	240-211352	Instrument ID:	BRIAN
Client Matrix:	Solid	Prep Batch:	240-211224	Lab File ID:	1217151.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.00 g
Analysis Date:	12/17/2015 0950	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 0657				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Halogens, Extractable Organic	1000	999	100	75 - 125	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211224

Method: 9023
Preparation: 9023

MS Lab Sample ID:	460-106284-B-1-B MS	Analysis Batch:	240-211352	Instrument ID:	BRIAN
Client Matrix:	Solid	Prep Batch:	240-211224	Lab File ID:	1217151.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.01 g
Analysis Date:	12/17/2015 1009			Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 0702				
Leach Date:	N/A				

MSD Lab Sample ID:	460-106284-B-1-C MSD	Analysis Batch:	240-211352	Instrument ID:	BRIAN
Client Matrix:	Solid	Prep Batch:	240-211224	Lab File ID:	1217151.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.01 g
Analysis Date:	12/17/2015 1022			Final Weight/Volume:	10 mL
Prep Date:	12/17/2015 0704				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Halogens, Extractable Organic	99	103	75 - 125	4	20		

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-211224

Method: 9023
Preparation: 9023

MS Lab Sample ID:	460-106284-B-1-B MS	Units:	mg/Kg
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	12/17/2015 1009		
Prep Date:	12/17/2015 0702		
Leach Date:	N/A		

MSD Lab Sample ID:	460-106284-B-1-C MSD
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	12/17/2015 1022
Prep Date:	12/17/2015 0704
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Halogens, Extractable Organic	36	U	1120	1120	1110	1160

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Method Blank - Batch: 490-307906

Method: 9071B
Preparation: 9071B

Lab Sample ID:	MB 490-307906/1-A	Analysis Batch:	490-307909	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	490-307906	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	12/20/2015 1307	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/20/2015 1307				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
HEM	57	U	57	100

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 490-307906

Method: 9071B
Preparation: 9071B

LCS Lab Sample ID:	LCS 490-307906/2-A	Analysis Batch:	490-307909	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	490-307906	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	12/20/2015 1307	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/20/2015 1307				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 490-307906/3-A	Analysis Batch:	490-307909	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	490-307906	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	12/20/2015 1307	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/20/2015 1307				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
HEM	86	92	75 - 117	8	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 490-307906

Method: 9071B
Preparation: 9071B

LCS Lab Sample ID:	LCS 490-307906/2-A	Units:	mg/Kg
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	12/20/2015 1307		
Prep Date:	12/20/2015 1307		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 490-307906/3-A
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	12/20/2015 1307
Prep Date:	12/20/2015 1307
Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM	4000	4000	3420	3690

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Matrix Spike - Batch: 490-307906

Method: 9071B
Preparation: 9071B

Lab Sample ID:	240-59150-1	Analysis Batch:	490-307909	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	490-307906	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.58 g
Analysis Date:	12/20/2015 1307	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/20/2015 1307				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
HEM	77	J	5020	4580	90	66 - 117	

Duplicate - Batch: 490-307906

Method: 9071B
Preparation: 9071B

Lab Sample ID:	240-59150-1	Analysis Batch:	490-307909	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	490-307906	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.43 g
Analysis Date:	12/20/2015 1307	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/20/2015 1307				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
HEM	77	J	76.3	1	50	J

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Duplicate - Batch: 240-211879

Method: 9095B
Preparation: N/A

Lab Sample ID:	240-58903-A-2 DU	Analysis Batch:	240-211879	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/22/2015 0630	Units:	NONE	Final Weight/Volume:	100 g
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Free Liquid	CNF	CNF	NC	20	

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Duplicate - Batch: 240-211066

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-59182-A-12 DU	Analysis Batch:	240-211066	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/16/2015 1621	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	98	98	0.2	20	
Percent Moisture	1.6	1.7	9	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC Semi VOA		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
Metals		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 240-211081					
240-59150-1	D-SD-WC-1	T	Solid	5035	
Prep Batch: 240-211257					
LB 240-211257/1-A	Method Blank	P	Solid	1311	
240-59150-1	D-SD-WC-1	P	Solid	1311	
240-59150-1MS	Matrix Spike	P	Solid	1311	
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	1311	
Analysis Batch:240-211382					
LB 240-211257/1-A	Method Blank	P	Solid	8260B	
LCS 240-211382/9	Lab Control Sample	T	Water	8260B	
240-59150-1	D-SD-WC-1	P	Solid	8260B	
240-59150-1MS	Matrix Spike	P	Solid	8260B	
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	8260B	
Analysis Batch:240-211550					
LCS 240-211550/5	Lab Control Sample	T	Solid	8260C	
LCS 240-211550/7	Lab Control Sample	T	Solid	8260C	
MB 240-211550/6	Method Blank	T	Solid	8260C	
240-59150-1	D-SD-WC-1	T	Solid	8260C	240-211081

Report Basis
P = TCLP
T = Total

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-211244					
240-59150-1	D-SD-WC-1	P	Solid	1311	
240-59150-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 240-211298					
LCS 240-211298/4-A	Lab Control Sample	T	Water	3510C	
MB 240-211298/3-A	Method Blank	T	Water	3510C	
240-59150-1	D-SD-WC-1	P	Solid	3510C	240-211244
240-59150-1MS	Matrix Spike	P	Solid	3510C	240-211244
Prep Batch: 240-211448					
LCS 240-211448/18-A	Lab Control Sample	T	Solid	3540C	
MB 240-211448/17-A	Method Blank	T	Solid	3540C	
240-59150-1	D-SD-WC-1	T	Solid	3540C	
Analysis Batch:240-211628					
LCS 240-211298/4-A	Lab Control Sample	T	Water	8270C	240-211298
MB 240-211298/3-A	Method Blank	T	Water	8270C	240-211298
240-59150-1	D-SD-WC-1	P	Solid	8270C	240-211298
240-59150-1MS	Matrix Spike	P	Solid	8270C	240-211298
Analysis Batch:240-211748					
LCS 240-211448/18-A	Lab Control Sample	T	Solid	8270D	240-211448
MB 240-211448/17-A	Method Blank	T	Solid	8270D	240-211448
Analysis Batch:240-211902					
240-59150-1	D-SD-WC-1	T	Solid	8270D	240-211448

Report Basis
P = TCLP
T = Total

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 240-211450					
LCS 240-211450/2-A	Lab Control Sample	T	Solid	5030A	
MB 240-211450/1-A	Method Blank	T	Solid	5030A	
180-50773-A-11-B MS	Matrix Spike	T	Solid	5030A	
180-50773-A-11-C MSD	Matrix Spike Duplicate	T	Solid	5030A	
240-59150-1	D-SD-WC-1	T	Solid	5030A	
Analysis Batch:240-211453					
LCS 240-211450/2-A	Lab Control Sample	T	Solid	8015C	240-211450
MB 240-211450/1-A	Method Blank	T	Solid	8015C	240-211450
180-50773-A-11-B MS	Matrix Spike	T	Solid	8015C	240-211450
180-50773-A-11-C MSD	Matrix Spike Duplicate	T	Solid	8015C	240-211450
240-59150-1	D-SD-WC-1	T	Solid	8015C	240-211450

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 240-211226					
LCS 240-211226/17-A	Lab Control Sample	T	Solid	3540C	
MB 240-211226/16-A	Method Blank	T	Solid	3540C	
240-59150-1	D-SD-WC-1	T	Solid	3540C	
240-59196-B-12-B MS	Matrix Spike	T	Solid	3540C	
240-59196-B-12-C MSD	Matrix Spike Duplicate	T	Solid	3540C	
Prep Batch: 240-211244					
240-59150-1	D-SD-WC-1	P	Solid	1311	
240-59150-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 240-211247					
LCS 240-211247/23-A	Lab Control Sample	T	Solid	3540C	
MB 240-211247/22-A	Method Blank	T	Solid	3540C	
240-59150-1	D-SD-WC-1	T	Solid	3540C	
Prep Batch: 240-211299					
LCS 240-211299/4-A	Lab Control Sample	T	Water	3520C	
MB 240-211299/3-A	Method Blank	T	Water	3520C	
240-59150-1	D-SD-WC-1	P	Solid	3520C	240-211244
240-59150-1MS	Matrix Spike	P	Solid	3520C	240-211244
Prep Batch: 240-211300					
LCS 240-211300/4-A	Lab Control Sample	T	Water	8151A	
MB 240-211300/3-A	Method Blank	T	Water	8151A	
240-59150-1	D-SD-WC-1	P	Solid	8151A	240-211244
240-59150-1MS	Matrix Spike	P	Solid	8151A	240-211244
Analysis Batch:240-211535					
LCS 240-211300/4-A	Lab Control Sample	T	Water	8151A	240-211300
MB 240-211300/3-A	Method Blank	T	Water	8151A	240-211300
240-59150-1	D-SD-WC-1	P	Solid	8151A	240-211300
240-59150-1MS	Matrix Spike	P	Solid	8151A	240-211300
Analysis Batch:240-211542					
LCS 240-211226/17-A	Lab Control Sample	T	Solid	8015C	240-211226
MB 240-211226/16-A	Method Blank	T	Solid	8015C	240-211226
240-59150-1	D-SD-WC-1	T	Solid	8015C	240-211226
240-59196-B-12-B MS	Matrix Spike	T	Solid	8015C	240-211226
240-59196-B-12-C MSD	Matrix Spike Duplicate	T	Solid	8015C	240-211226
Analysis Batch:240-211637					
LCS 240-211247/23-A	Lab Control Sample	T	Solid	8082A	240-211247
MB 240-211247/22-A	Method Blank	T	Solid	8082A	240-211247
240-59150-1	D-SD-WC-1	T	Solid	8082A	240-211247

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:240-211762					
LCS 240-211299/4-A	Lab Control Sample	T	Water	8081B	240-211299
MB 240-211299/3-A	Method Blank	T	Water	8081B	240-211299
240-59150-1	D-SD-WC-1	P	Solid	8081B	240-211299
240-59150-1MS	Matrix Spike	P	Solid	8081B	240-211299

Report Basis
P = TCLP
T = Total

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-211244					
LB 240-211244/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 240-211244/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
240-59150-1	D-SD-WC-1	P	Solid	1311	
240-59150-1MS	Matrix Spike	P	Solid	1311	
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	1311	
Prep Batch: 240-211319					
LCS 240-211319/3-A	Lab Control Sample	T	Water	3010A	
MB 240-211319/2-A	Method Blank	T	Water	3010A	
LB 240-211244/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	240-211244
240-59150-1	D-SD-WC-1	P	Solid	3010A	240-211244
240-59150-1MS	Matrix Spike	P	Solid	3010A	240-211244
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	3010A	240-211244
Prep Batch: 240-211320					
LCS 240-211320/3-A	Lab Control Sample	T	Water	7470A	
MB 240-211320/2-A	Method Blank	T	Water	7470A	
LB 240-211244/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	240-211244
240-59150-1	D-SD-WC-1	P	Solid	7470A	240-211244
240-59150-1MS	Matrix Spike	P	Solid	7470A	240-211244
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	7470A	240-211244
Prep Batch: 240-211321					
LCS 240-211321/2-A	Lab Control Sample	T	Solid	3050B	
MB 240-211321/1-A	Method Blank	T	Solid	3050B	
240-59150-1	D-SD-WC-1	T	Solid	3050B	
Prep Batch: 240-211344					
LCS 240-211344/2-A	Lab Control Sample	T	Solid	7471A	
MB 240-211344/1-A	Method Blank	T	Solid	7471A	
240-59150-1	D-SD-WC-1	T	Solid	7471A	
240-59175-H-1-C MS	Matrix Spike	T	Solid	7471A	
240-59175-H-1-D MSD	Matrix Spike Duplicate	T	Solid	7471A	
Analysis Batch:240-211362					
LB 240-211244/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	240-211320
LCS 240-211320/3-A	Lab Control Sample	T	Water	7470A	240-211320
MB 240-211320/2-A	Method Blank	T	Water	7470A	240-211320
240-59150-1	D-SD-WC-1	P	Solid	7470A	240-211320
240-59150-1MS	Matrix Spike	P	Solid	7470A	240-211320
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	7470A	240-211320

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:240-211442					
LCS 240-211344/2-A	Lab Control Sample	T	Solid	7471A	240-211344
MB 240-211344/1-A	Method Blank	T	Solid	7471A	240-211344
240-59150-1	D-SD-WC-1	T	Solid	7471A	240-211344
240-59175-H-1-C MS	Matrix Spike	T	Solid	7471A	240-211344
240-59175-H-1-D MSD	Matrix Spike Duplicate	T	Solid	7471A	240-211344
Analysis Batch:240-211528					
LCS 240-211321/2-A	Lab Control Sample	T	Solid	6010C	240-211321
MB 240-211321/1-A	Method Blank	T	Solid	6010C	240-211321
240-59150-1	D-SD-WC-1	T	Solid	6010C	240-211321
Analysis Batch:240-211692					
LB 240-211244/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	240-211319
LCS 240-211319/3-A	Lab Control Sample	T	Water	6010B	240-211319
MB 240-211319/2-A	Method Blank	T	Water	6010B	240-211319
240-59150-1	D-SD-WC-1	P	Solid	6010B	240-211319
240-59150-1MS	Matrix Spike	P	Solid	6010B	240-211319
240-59150-1MSD	Matrix Spike Duplicate	P	Solid	6010B	240-211319

Report Basis
P = TCLP
T = Total

Client: Tetra Tech, Inc. Job Number: 240-59150-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-211066					
240-59150-1	D-SD-WC-1	T	Solid	Moisture	
240-59182-A-12 DU	Duplicate	T	Solid	Moisture	
Prep Batch: 240-211224					
LCS 240-211224/4-A	Lab Control Sample	T	Solid	9023	
MB 240-211224/3-A	Method Blank	T	Solid	9023	
240-59150-1	D-SD-WC-1	T	Solid	9023	
460-106284-B-1-B MS	Matrix Spike	T	Solid	9023	
460-106284-B-1-C MSD	Matrix Spike Duplicate	T	Solid	9023	
Analysis Batch:240-211352					
LCS 240-211224/4-A	Lab Control Sample	T	Solid	9023	240-211224
MB 240-211224/3-A	Method Blank	T	Solid	9023	240-211224
240-59150-1	D-SD-WC-1	T	Solid	9023	240-211224
460-106284-B-1-B MS	Matrix Spike	T	Solid	9023	240-211224
460-106284-B-1-C MSD	Matrix Spike Duplicate	T	Solid	9023	240-211224
Analysis Batch:240-211879					
240-58903-A-2 DU	Duplicate	T	Solid	9095B	
240-59150-1	D-SD-WC-1	T	Solid	9095B	
Prep Batch: 490-307906					
LCS 490-307906/2-A	Lab Control Sample	T	Solid	9071B	
LCSD 490-307906/3-A	Lab Control Sample Duplicate	T	Solid	9071B	
MB 490-307906/1-A	Method Blank	T	Solid	9071B	
240-59150-1	D-SD-WC-1	T	Solid	9071B	
240-59150-1DU	Duplicate	T	Solid	9071B	
240-59150-1MS	Matrix Spike	T	Solid	9071B	
Analysis Batch:490-307909					
LCS 490-307906/2-A	Lab Control Sample	T	Solid	9071B	490-307906
LCSD 490-307906/3-A	Lab Control Sample Duplicate	T	Solid	9071B	490-307906
MB 490-307906/1-A	Method Blank	T	Solid	9071B	490-307906
240-59150-1	D-SD-WC-1	T	Solid	9071B	490-307906
240-59150-1DU	Duplicate	T	Solid	9071B	490-307906
240-59150-1MS	Matrix Spike	T	Solid	9071B	490-307906

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Laboratory Chronicle

Lab ID: 240-59150-1 **Client ID: D-SD-WC-1**

Sample Date/Time: 12/15/2015 14:00 Received Date/Time: 12/16/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-59150-F-1-C		240-211382		12/17/2015 23:36	1	TAL CAN	TJL1
A:8260B	240-59150-F-1-C		240-211382		12/17/2015 23:36	1	TAL CAN	TJL1
P:5035	240-59150-C-1-A		240-211550	240-211081	12/16/2015 16:56	1	TAL CAN	LAM
A:8260C	240-59150-C-1-A		240-211550	240-211081	12/18/2015 21:39	1	TAL CAN	SAM
P:3510C	240-59150-F-1-E		240-211628	240-211298	12/17/2015 10:39	1	TAL CAN	JDR
A:8270C	240-59150-F-1-E		240-211628	240-211298	12/20/2015 13:57	1	TAL CAN	JMG
P:3540C	240-59150-F-1-S		240-211902	240-211448	12/18/2015 07:26	2	TAL CAN	YDN
A:8270D	240-59150-F-1-S		240-211902	240-211448	12/22/2015 18:17	2	TAL CAN	JMG
P:5030A	240-59150-C-1-B		240-211453	240-211450	12/18/2015 07:47	1	TAL CAN	RTR
A:8015C	240-59150-C-1-B		240-211453	240-211450	12/18/2015 13:43	1	TAL CAN	RTR
P:3540C	240-59150-F-1-A		240-211542	240-211226	12/17/2015 07:40	1	TAL CAN	YDN
A:8015C	240-59150-F-1-A		240-211542	240-211226	12/19/2015 04:39	1	TAL CAN	DEB
P:3520C	240-59150-F-1-G		240-211762	240-211299	12/17/2015 10:41	1	TAL CAN	JDR
A:8081B	240-59150-F-1-G		240-211762	240-211299	12/21/2015 16:50	1	TAL CAN	BPM
P:3540C	240-59150-F-1-D		240-211637	240-211247	12/17/2015 08:24	1	TAL CAN	YDN
A:8082A	240-59150-F-1-D		240-211637	240-211247	12/20/2015 16:42	1	TAL CAN	LSH
P:8151A	240-59150-F-1-I		240-211535	240-211300	12/17/2015 10:42	1	TAL CAN	JDR
A:8151A	240-59150-F-1-I		240-211535	240-211300	12/18/2015 21:40	1	TAL CAN	DEB
P:3010A	240-59150-F-1-K		240-211692	240-211319	12/17/2015 11:13	1	TAL CAN	WKD
A:6010B	240-59150-F-1-K		240-211692	240-211319	12/18/2015 13:52	1	TAL CAN	RKT
P:3050B	240-59150-F-1-Q		240-211528	240-211321	12/17/2015 11:20	1	TAL CAN	DEE
A:6010C	240-59150-F-1-Q		240-211528	240-211321	12/18/2015 11:59	1	TAL CAN	KLC
P:7470A	240-59150-F-1-N		240-211362	240-211320	12/17/2015 14:00	1	TAL CAN	WKD
A:7470A	240-59150-F-1-N		240-211362	240-211320	12/17/2015 16:46	1	TAL CAN	WAL
P:7471A	240-59150-F-1-R		240-211442	240-211344	12/17/2015 14:55	1	TAL CAN	DEE
A:7471A	240-59150-F-1-R		240-211442	240-211344	12/18/2015 06:05	1	TAL CAN	WAL
P:9023	240-59150-E-1-A		240-211352	240-211224	12/17/2015 07:19	1	TAL CAN	TPH
A:9023	240-59150-E-1-A		240-211352	240-211224	12/17/2015 12:34	1	TAL CAN	TPH
P:9071B	240-59150-H-1-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9071B	240-59150-H-1-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9095B	240-59150-I-1		240-211879		12/22/2015 06:46	1	TAL CAN	TPH
A:Moisture	240-59150-D-1		240-211066		12/16/2015 16:21	1	TAL CAN	BLW

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Laboratory Chronicle

Lab ID: 240-59150-1 MS **Client ID: D-SD-WC-1**

Sample Date/Time: 12/15/2015 14:00 Received Date/Time: 12/16/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-59150-F-1-C MS		240-211382		12/18/2015 00:46	1	TAL CAN	TJL1
A:8260B	240-59150-F-1-C MS		240-211382		12/18/2015 00:46	1	TAL CAN	TJL1
P:3510C	240-59150-F-1-F MS		240-211628	240-211298	12/17/2015 10:39	1	TAL CAN	JDR
A:8270C	240-59150-F-1-F MS		240-211628	240-211298	12/20/2015 14:20	1	TAL CAN	JMG
P:3520C	240-59150-F-1-H MS		240-211762	240-211299	12/17/2015 10:41	1	TAL CAN	JDR
A:8081B	240-59150-F-1-H MS		240-211762	240-211299	12/21/2015 17:13	1	TAL CAN	BPM
P:8151A	240-59150-F-1-J MS		240-211535	240-211300	12/17/2015 10:42	1	TAL CAN	JDR
A:8151A	240-59150-F-1-J MS		240-211535	240-211300	12/18/2015 22:05	1	TAL CAN	DEB
P:3010A	240-59150-F-1-L MS ^5		240-211692	240-211319	12/17/2015 11:13	5	TAL CAN	WKD
A:6010B	240-59150-F-1-L MS ^5		240-211692	240-211319	12/18/2015 14:00	5	TAL CAN	RKT
P:7470A	240-59150-F-1-O MS		240-211362	240-211320	12/17/2015 14:00	1	TAL CAN	WKD
A:7470A	240-59150-F-1-O MS		240-211362	240-211320	12/17/2015 16:47	1	TAL CAN	WAL
P:9071B	240-59150-H-1-B MS		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9071B	240-59150-H-1-B MS		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ

Lab ID: 240-59150-1 MSD **Client ID: D-SD-WC-1**

Sample Date/Time: 12/15/2015 14:00 Received Date/Time: 12/16/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-59150-F-1-C MSD		240-211382		12/18/2015 01:09	1	TAL CAN	TJL1
A:8260B	240-59150-F-1-C MSD		240-211382		12/18/2015 01:09	1	TAL CAN	TJL1
P:3010A	240-59150-F-1-M MSD ^5		240-211692	240-211319	12/17/2015 11:13	5	TAL CAN	WKD
A:6010B	240-59150-F-1-M MSD ^5		240-211692	240-211319	12/18/2015 14:12	5	TAL CAN	RKT
P:7470A	240-59150-F-1-P MSD		240-211362	240-211320	12/17/2015 14:00	1	TAL CAN	WKD
A:7470A	240-59150-F-1-P MSD		240-211362	240-211320	12/17/2015 16:48	1	TAL CAN	WAL

Lab ID: 240-59150-1 DU **Client ID: D-SD-WC-1**

Sample Date/Time: 12/15/2015 14:00 Received Date/Time: 12/16/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:9071B	240-59150-H-1-C DU		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9071B	240-59150-H-1-C DU		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Laboratory Chronicle

Lab ID: 240-59150-1 SD **Client ID: D-SD-WC-1**

Sample Date/Time: 12/15/2015 14:00 Received Date/Time: 12/16/2015 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	240-59150-F-1-K SD ^5		240-211692	240-211319	12/17/2015 11:13	5	TAL CAN	WKD
A:6010B	240-59150-F-1-K SD ^5		240-211692	240-211319	12/18/2015 13:56	5	TAL CAN	RKT

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LB 240-211257/1-A		240-211382		12/17/2015 17:48	1	TAL CAN	TJL1
A:8260B	LB 240-211257/1-A		240-211382		12/17/2015 17:48	1	TAL CAN	TJL1
A:8260C	MB 240-211550/6		240-211550		12/18/2015 15:12	1	TAL CAN	SAM
P:3510C	MB 240-211298/3-A		240-211628	240-211298	12/17/2015 10:39	1	TAL CAN	JDR
A:8270C	MB 240-211298/3-A		240-211628	240-211298	12/20/2015 11:38	1	TAL CAN	JMG
P:3540C	MB 240-211448/17-A		240-211748	240-211448	12/18/2015 07:26	1	TAL CAN	YDN
A:8270D	MB 240-211448/17-A		240-211748	240-211448	12/21/2015 13:27	1	TAL CAN	JMG
P:5030A	MB 240-211450/1-A		240-211453	240-211450	12/18/2015 07:47	1	TAL CAN	RTR
A:8015C	MB 240-211450/1-A		240-211453	240-211450	12/18/2015 10:42	1	TAL CAN	RTR
P:3540C	MB 240-211226/16-A		240-211542	240-211226	12/17/2015 07:40	1	TAL CAN	YDN
A:8015C	MB 240-211226/16-A		240-211542	240-211226	12/18/2015 19:52	1	TAL CAN	DEB
P:3520C	MB 240-211299/3-A		240-211762	240-211299	12/17/2015 10:41	1	TAL CAN	JDR
A:8081B	MB 240-211299/3-A		240-211762	240-211299	12/21/2015 17:37	1	TAL CAN	BPM
P:3540C	MB 240-211247/22-A		240-211637	240-211247	12/17/2015 08:24	1	TAL CAN	YDN
A:8082A	MB 240-211247/22-A		240-211637	240-211247	12/20/2015 15:29	1	TAL CAN	LSH
P:8151A	MB 240-211300/3-A		240-211535	240-211300	12/17/2015 10:42	1	TAL CAN	JDR
A:8151A	MB 240-211300/3-A		240-211535	240-211300	12/18/2015 20:48	1	TAL CAN	DEB
P:3010A	MB 240-211319/2-A		240-211692	240-211319	12/17/2015 11:13	1	TAL CAN	WKD
A:6010B	MB 240-211319/2-A		240-211692	240-211319	12/18/2015 13:44	1	TAL CAN	RKT
P:3050B	MB 240-211321/1-A		240-211528	240-211321	12/17/2015 11:20	1	TAL CAN	DEE
A:6010C	MB 240-211321/1-A		240-211528	240-211321	12/18/2015 11:51	1	TAL CAN	KLC
P:7470A	MB 240-211320/2-A		240-211362	240-211320	12/17/2015 14:00	1	TAL CAN	WKD
A:7470A	MB 240-211320/2-A		240-211362	240-211320	12/17/2015 16:42	1	TAL CAN	WAL
P:7471A	MB 240-211344/1-A		240-211442	240-211344	12/17/2015 14:55	1	TAL CAN	DEE
A:7471A	MB 240-211344/1-A		240-211442	240-211344	12/18/2015 05:39	1	TAL CAN	WAL
P:9023	MB 240-211224/3-A		240-211352	240-211224	12/17/2015 06:55	1	TAL CAN	TPH
A:9023	MB 240-211224/3-A		240-211352	240-211224	12/17/2015 09:37	1	TAL CAN	TPH
P:9071B	MB 490-307906/1-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9071B	MB 490-307906/1-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Laboratory Chronicle

Lab ID: LB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	LB 240-211244/1-B		240-211692	240-211319	12/17/2015 11:13	1	TAL CAN	WKD
A:6010B	LB 240-211244/1-B		240-211692	240-211319	12/18/2015 13:40	1	TAL CAN	RKT
P:7470A	LB 240-211244/1-C		240-211362	240-211320	12/17/2015 14:00	1	TAL CAN	WKD
A:7470A	LB 240-211244/1-C		240-211362	240-211320	12/17/2015 16:41	1	TAL CAN	WAL

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 240-211382/9		240-211382		12/17/2015 18:12	1	TAL CAN	TJL1
A:8260B	LCS 240-211382/9		240-211382		12/17/2015 18:12	1	TAL CAN	TJL1
A:8260C	LCS 240-211550/5		240-211550		12/18/2015 14:51	1	TAL CAN	SAM
A:8260C	LCS 240-211550/7		240-211550		12/18/2015 15:34	1	TAL CAN	SAM
P:3510C	LCS 240-211298/4-A		240-211628	240-211298	12/17/2015 10:39	1	TAL CAN	JDR
A:8270C	LCS 240-211298/4-A		240-211628	240-211298	12/20/2015 12:01	1	TAL CAN	JMG
P:3540C	LCS 240-211448/18-A		240-211748	240-211448	12/18/2015 07:26	1	TAL CAN	YDN
A:8270D	LCS 240-211448/18-A		240-211748	240-211448	12/21/2015 13:51	1	TAL CAN	JMG
P:5030A	LCS 240-211450/2-A		240-211453	240-211450	12/18/2015 07:47	1	TAL CAN	RTR
A:8015C	LCS 240-211450/2-A		240-211453	240-211450	12/18/2015 11:18	1	TAL CAN	RTR
P:3540C	LCS 240-211226/17-A		240-211542	240-211226	12/17/2015 07:40	1	TAL CAN	YDN
A:8015C	LCS 240-211226/17-A		240-211542	240-211226	12/18/2015 20:23	1	TAL CAN	DEB
P:3520C	LCS 240-211299/4-A		240-211762	240-211299	12/17/2015 10:41	1	TAL CAN	JDR
A:8081B	LCS 240-211299/4-A		240-211762	240-211299	12/21/2015 18:00	1	TAL CAN	BPM
P:3540C	LCS 240-211247/23-A		240-211637	240-211247	12/17/2015 08:24	1	TAL CAN	YDN
A:8082A	LCS 240-211247/23-A		240-211637	240-211247	12/20/2015 15:47	1	TAL CAN	LSH
P:8151A	LCS 240-211300/4-A		240-211535	240-211300	12/17/2015 10:42	1	TAL CAN	JDR
A:8151A	LCS 240-211300/4-A		240-211535	240-211300	12/18/2015 21:14	1	TAL CAN	DEB
P:3010A	LCS 240-211319/3-A		240-211692	240-211319	12/17/2015 11:13	1	TAL CAN	WKD
A:6010B	LCS 240-211319/3-A		240-211692	240-211319	12/18/2015 13:48	1	TAL CAN	RKT
P:3050B	LCS 240-211321/2-A		240-211528	240-211321	12/17/2015 11:20	1	TAL CAN	DEE
A:6010C	LCS 240-211321/2-A		240-211528	240-211321	12/18/2015 11:55	1	TAL CAN	KLC
P:7470A	LCS 240-211320/3-A		240-211362	240-211320	12/17/2015 14:00	1	TAL CAN	WKD
A:7470A	LCS 240-211320/3-A		240-211362	240-211320	12/17/2015 16:44	1	TAL CAN	WAL
P:7471A	LCS 240-211344/2-A		240-211442	240-211344	12/17/2015 14:55	1	TAL CAN	DEE
A:7471A	LCS 240-211344/2-A		240-211442	240-211344	12/18/2015 05:41	1	TAL CAN	WAL
P:9023	LCS 240-211224/4-A		240-211352	240-211224	12/17/2015 06:57	1	TAL CAN	TPH
A:9023	LCS 240-211224/4-A		240-211352	240-211224	12/17/2015 09:50	1	TAL CAN	TPH
P:9071B	LCS 490-307906/2-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9071B	LCS 490-307906/2-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Laboratory Chronicle

Lab ID: LCSD **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:9071B	LCSD 490-307906/3-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ
A:9071B	LCSD 490-307906/3-A		490-307909	490-307906	12/20/2015 13:07	1	TAL NSH	LOJ

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 12/14/2015 10:15 Received Date/Time: 12/15/2015 12:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030A	180-50773-A-11-B MS		240-211453	240-211450	12/18/2015 07:47	1	TAL CAN	RTR
A:8015C	180-50773-A-11-B MS		240-211453	240-211450	12/18/2015 21:47	1	TAL CAN	RTR
P:3540C	240-59196-B-12-B MS		240-211542	240-211226	12/17/2015 07:40	1	TAL CAN	YDN
A:8015C	240-59196-B-12-B MS		240-211542	240-211226	12/19/2015 03:37	1	TAL CAN	DEB
P:7471A	240-59175-H-1-C MS		240-211442	240-211344	12/17/2015 14:55	1	TAL CAN	DEE
A:7471A	240-59175-H-1-C MS		240-211442	240-211344	12/18/2015 05:43	1	TAL CAN	WAL
P:9023	460-106284-B-1-B MS		240-211352	240-211224	12/17/2015 07:02	1	TAL CAN	TPH
A:9023	460-106284-B-1-B MS		240-211352	240-211224	12/17/2015 10:09	1	TAL CAN	TPH

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 12/14/2015 10:15 Received Date/Time: 12/15/2015 12:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030A	180-50773-A-11-C MSD		240-211453	240-211450	12/18/2015 07:47	1	TAL CAN	RTR
A:8015C	180-50773-A-11-C MSD		240-211453	240-211450	12/18/2015 22:22	1	TAL CAN	RTR
P:3540C	240-59196-B-12-C MSD		240-211542	240-211226	12/17/2015 07:40	1	TAL CAN	YDN
A:8015C	240-59196-B-12-C MSD		240-211542	240-211226	12/19/2015 04:08	1	TAL CAN	DEB
P:7471A	240-59175-H-1-D MSD		240-211442	240-211344	12/17/2015 14:55	1	TAL CAN	DEE
A:7471A	240-59175-H-1-D MSD		240-211442	240-211344	12/18/2015 05:44	1	TAL CAN	WAL
P:9023	460-106284-B-1-C MSD		240-211352	240-211224	12/17/2015 07:04	1	TAL CAN	TPH
A:9023	460-106284-B-1-C MSD		240-211352	240-211224	12/17/2015 10:22	1	TAL CAN	TPH

Client: Tetra Tech, Inc. Job Number: 240-59150-1

Laboratory Chronicle

Lab ID: DU **Client ID: N/A**

Sample Date/Time: 12/09/2015 09:00 Received Date/Time: 12/10/2015 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9095B	240-58903-A-2 DU		240-211879		12/22/2015 06:30	1	TAL CAN	TPH
A:Moisture	240-59182-A-12 DU		240-211066		12/16/2015 16:21	1	TAL CAN	BLW

Lab References:

TAL CAN = TestAmerica Canton

TAL NSH = TestAmerica Nashville

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EOX CCV_00192	12/22/15	12/15/15	ETHYLACETATE, Lot 138710	10 mL	WCQC_00039	10 mL	Halogens, Extractable Organic	1000 mg/L
							Halogens, Total Organic	1000 mg/L
.WCQC_00039	04/11/16	10/11/15	ETHYLACETATE, Lot 144783	200 mL	WCTOXCCVLCS_00005	0.3712 g	Halogens, Extractable Organic	1000 mg/L
							Halogens, Total Organic	1000 mg/L
..WCTOXCCVLCS_00005	06/11/20		Aldrich, Lot STBF22068V		(Purchased Reagent)		Halogens, Extractable Organic	0.538795 g/g
							Halogens, Total Organic	0.538795 g/g
EOX LCS_00364	12/17/15	12/17/15	ETHYLACETATE, Lot 138710	10 mL	WCQC_00040	10 mL	Halogens, Extractable Organic	1000 mg/L
							Halogens, Total Organic	1000 mg/L
.WCQC_00040	06/08/16	12/08/15	ETHYLACETATE, Lot 144783	200 mL	WCTOXCCVLCS_00004	0.3712 g	Halogens, Extractable Organic	1000 mg/L
							Halogens, Total Organic	1000 mg/L
..WCTOXCCVLCS_00004	10/24/16		Aldrich, Lot MKBG2397V		(Purchased Reagent)		Halogens, Extractable Organic	0.538795 g/g
							Halogens, Total Organic	0.538795 g/g
ex10PPMSPK_00019	07/13/17	11/23/15	MEOH, Lot 0000118655	1000 mL	ex1016/1260st_00003	10 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
.ex1016/1260st_00003	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
ex2/.2SURRW_00063	07/13/17	11/23/15	MEOH, Lot 0000118655	2000 mL	EXPESTSURR_00001	2 mL	DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.EXPESTSURR_00001	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
exBENZALDEHYD_00033	08/31/16	12/11/15	MEOH, Lot 0000118655	200 mL	EXLIST1_S11_00001	4 mL	Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
.EXLIST1_S11_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
exBNA TCLPspk_00005	12/31/16	12/07/15	MEOH, Lot 0000118655	200 mL	exLIST1_S1_00004	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							bis (2-chloroisopropyl) ether	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
.exLIST1_S1_00004	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
exBNASPIKE_00055	08/31/16	12/07/15	MEOH, Lot 0000118655	200 mL	exLIST1_S1_00004	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							bis (2-chloroisopropyl) ether	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					EXLIST1_S10_00001	4 mL	Benzoic acid	40 ug/mL
							Indene	40 ug/mL
					exLIST1_S9_00003	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
.exLIST1_S1_00004	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	500 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	500 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.EXLIST1_S10_00001	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.exLIST1_S9_00003	01/31/17		Restek, Lot A0112567		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
exBNASURR W_00029	07/13/17	11/10/15	MEOH, Lot 0000118655	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
exBNASURR W_00030	07/13/17	12/11/15	MEOH, Lot 0000118655	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
exDIESELSPKw_00069	07/06/18	11/18/15	ACETONE, Lot 0000116371	200 mL	exDIESELstd_00003	10 mL	Diesel	2521.45 ug/mL
.exDIESELstd_00003	04/30/22		Restek, Lot A0109732		(Purchased Reagent)		Diesel	50429 ug/mL
exHERBTCLPSUR_00001	10/31/16	08/28/15	MEOH, Lot 147358	250 mL	exHERBSURR_00028	25 mL	2,4-Dichlorophenylacetic acid	2.004 ug/mL
.exHERBSURR_00028	10/31/16	08/26/15	MEOH, Lot 147358	250 mL	exDCAAstd_00001	5 mL	2,4-Dichlorophenylacetic acid	20.04 ug/mL
..exDCAAstd_00001	10/31/16		Restek, Lot A0110521		(Purchased Reagent)		2,4-Dichlorophenylacetic acid	1002 ug/mL
exHERBTSPIKEW_00018	01/31/17	11/20/15	ACETONE, Lot 0000116371	250 mL	EXHERBTCLPSPK_00008	0.25 mL	2,4-D	2 ug/mL
							Silvex (2,4,5-TP)	0.5 ug/mL
.EXHERBTCLPSPK_00008	01/31/17		ULTRA SCIENTIFIC, Lot CJ-5410		(Purchased Reagent)		2,4-D	2000 ug/mL
							Silvex (2,4,5-TP)	500 ug/mL
exOTPSURRW_00007	11/15/16	11/23/15	MEOH, Lot 0000099494	1000 mL	exOTPstd_00002	20 mL	o-Terphenyl (Surr)	200 ug/mL
.exOTPstd_00002	12/31/18		Restek, Lot A0110923		(Purchased Reagent)		o-Terphenyl (Surr)	10000 ug/mL
EXPESTBUFF1_00046	12/16/15	12/16/15	DIWATER, Lot 12162015	8 L	EXFORM1NNAOH_00011	534.97 g	Sodium Hydroxide	2.67485 mol/L
					EXTCLPACETIC_00019	45.6 mL	Acetic acid	5.7 mol/L
.EXFORM1NNAOH_00011	08/24/17	12/10/15	DIWATER, Lot 12102015 bottled	2 L	EXTCLPNAOH_00023	80 g	Sodium Hydroxide	40 N
..EXTCLPNAOH_00023	08/24/17		Macron, Lot 0000112951		(Purchased Reagent)		Sodium Hydroxide	1 g/g
.EXTCLPACETIC_00019	07/29/18		Fisher, Lot 149081		(Purchased Reagent)		Acetic acid	1 g/g
exPESTTCLPspk_00001	04/30/16	11/18/15	MEOH, Lot 0000099494	100 mL	EXTCLPPEST_00008	0.1 mL	Endrin	0.1 ug/mL
							gamma-BHC (Lindane)	0.1 ug/mL
							Heptachlor	0.1 ug/mL
							Heptachlor epoxide	0.1 ug/mL
							Methoxychlor	0.2 ug/mL
.EXTCLPPEST_00008	04/30/16		Ultra Scientific, Lot CL-0970		(Purchased Reagent)		Endrin	100 ug/mL
							gamma-BHC (Lindane)	100 ug/mL
							Heptachlor	100 ug/mL
							Heptachlor epoxide	100 ug/mL
							Methoxychlor	200 ug/mL
EXpH(0-14)_00011	11/16/17		Merck, Lot HC554612		(Purchased Reagent)		pH at time of analysis	1 No Unit
EXSYRFILTERS_00019	11/30/17		WHATMAN, Lot 9660523		(Purchased Reagent)		Prep Analyte	150 Filter
EXTCLPBUFF1_00701	12/16/15	12/15/15	DIWATER, Lot 12152015	48 L	EXTCLP5MNAOH_00030	751.49 g	Sodium Hydroxide	0.313121 %
					EXTCLPACETIC_00019	273.6 mL	Acetic acid	0.57 %
.EXTCLP5MNAOH_00030	08/24/17	12/09/15	DIWATER, Lot 12092015	3 L	EXTCLPNAOH_00023	600 g	Sodium Hydroxide	200 mol/L
..EXTCLPNAOH_00023	08/24/17		Macron, Lot 0000112951		(Purchased Reagent)		Sodium Hydroxide	1 g/g
.EXTCLPACETIC_00019	07/29/18		Fisher, Lot 149081		(Purchased Reagent)		Acetic acid	1 g/g
EXTCLPFILTERS_00029	11/06/18		Whatman, Lot 9673281		(Purchased Reagent)		Prep Analyte	100 Filter

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EXTCLPHCLW_00050	10/19/16	10/19/15	DIWATER, Lot 10192015	1000 mL	MTTMHCL_00079	83 mL	Hydrogen Chloride	83 mol/L
.MTTMHCL_00079	09/04/17	Macron/Avantor, Lot 0000086340			(Purchased Reagent)		Hydrogen Chloride	100 %
EXZHEFILTERS_00012	11/30/17	Environmental Express, Lot 102807-5124			(Purchased Reagent)		Prep Analyte	100 Filter
Gas Surr Cali_00014	11/02/15	08/07/15	MeoH, Lot 1823933	10 mL	VGGASURROGATE_00032	1 mL	Trifluorotoluene (Surr)	5 ug/mL
.VGGASURROGATE_00032	08/22/15	05/22/15	MEOH, Lot 49909	50 mL	VGSURRSTKGAS_00019	1.25 mL	Trifluorotoluene (Surr)	50 ug/mL
..VGSURRSTKGAS_00019	08/31/16	ULTRA SCIENTIFIC, Lot CE-1903A			(Purchased Reagent)		Trifluorotoluene (Surr)	2000 ug/mL
ICPCRIW_00015	04/01/16	10/15/15	DIWATER, Lot DIWATER	1000 mL	MTICPCRI1_00003	1 mL	Arsenic	15 ug/L
							Barium	10 ug/L
							Cadmium	5 ug/L
							Chromium	5 ug/L
							Lead	10 ug/L
							Selenium	20 ug/L
					MTICPCRILL3_00003	1 mL	Silver	5 ug/L
.MTICPCRI1_00003	04/01/16	INORGANIC VENTURES, Lot J2-MEB567105			(Purchased Reagent)		Arsenic	15 ug/mL
							Barium	10 ug/mL
							Cadmium	5 ug/mL
							Chromium	5 ug/mL
							Lead	10 ug/mL
							Selenium	20 ug/mL
.MTICPCRILL3_00003	04/01/16	INORGANIC VENTURES, Lot J2-MEB567107			(Purchased Reagent)		Silver	5 ug/mL
ICPCRIW_00016	04/01/16	12/02/15	DIWATER, Lot DIWATER	1000 mL	MTICPCRI1_00003	1 mL	Arsenic	15 ug/L
							Barium	10 ug/L
							Cadmium	5 ug/L
							Chromium	5 ug/L
							Lead	10 ug/L
							Selenium	20 ug/L
					MTICPCRILL3_00003	1 mL	Silver	5 ug/L
.MTICPCRI1_00003	04/01/16	INORGANIC VENTURES, Lot J2-MEB567105			(Purchased Reagent)		Arsenic	15 ug/mL
							Barium	10 ug/mL
							Cadmium	5 ug/mL
							Chromium	5 ug/mL
							Lead	10 ug/mL
							Selenium	20 ug/mL
.MTICPCRILL3_00003	04/01/16	INORGANIC VENTURES, Lot J2-MEB567107			(Purchased Reagent)		Silver	5 ug/mL
K2S2O8_00035	12/01/17	12/01/15	DIWATER, Lot DIWATER	2.5 L	MTK2S208_00025	125 g	Potassium persulfate	0.05 g/g
.MTK2S208_00025	05/24/20	Macron, Lot 0000070212			(Purchased Reagent)		Potassium persulfate	1 g/g
MT1to1HCL_00063	08/09/16	11/25/15	DIWATER, Lot DIWATER	2500 mL	MTTMHCL_00090	1250 mL	Hydrogen Chloride	0.5 mL/mL
.MTTMHCL_00090	11/18/17	Fisher, Lot 4115050			(Purchased Reagent)		Hydrogen Chloride	100 %
MT1TO1HN03_01140	12/17/15	12/17/15	DIWATER, Lot DI WATER	500 mL	MTTMHNO3_00077	250 mL	Nitric acid	0.5 mL/mL
.MTTMHNO3_00077	12/01/17	Macron/Avantor, Lot 0000119636			(Purchased Reagent)		Nitric acid	100 %
MT6500ICV_00029	03/21/16	12/02/15	DIWATER, Lot DIWATER	1000 mL	MTTRICV3_00006	6 mL	Barium	1500 ug/L
							Chromium	1500 ug/L
					MTTRICV5_00012	1.5 mL	Arsenic	375 ug/L
							Cadmium	375 ug/L
							Lead	375 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Selenium	375 ug/L
					MTTRICVAG_00006	7.5 mL	Silver	750 ug/L
.MTTRICV3_00006	04/01/16	CPI, Lot 1071810			(Purchased Reagent)		Barium	250 mg/L
							Chromium	250 mg/L
.MTTRICV5_00012	04/01/16	CPI, Lot 1071811			(Purchased Reagent)		Arsenic	250 ug/mL
							Cadmium	250 ug/mL
							Lead	250 ug/mL
							Selenium	250 ug/mL
.MTTRICVAG_00006	10/01/16	CPI, Lot 1080339			(Purchased Reagent)		Silver	100 mg/L
MTAGSPIKEW_00054	12/27/15	11/17/15	DIWATER, Lot DIWATER	1000 mL	MTAG_00005	2.5 mL	Silver	2500 ug/L
					MTTMHNO3_00075	50 mL	Nitric acid	50000000 ug/L
.MTAG_00005	12/27/15	HIGH PURITY STANDARDS, Lot 1401302			(Purchased Reagent)		Silver	1000 ug/mL
.MTTMHNO3_00075	11/03/17	Macron/Avantor, Lot 0000118147			(Purchased Reagent)		Nitric acid	100 %
MTAQUAREGIA_01216	12/17/15	12/17/15	NA, Lot NA	240 mL	MTTMHCL_00092	180 mL	Hydrogen Chloride	0.75 mL/mL
					MTTMHNO3_00077	60 mL	Nitric acid	0.25 mL/mL
.MTTMHCL_00092	12/09/17	Fisher, Lot 4115080			(Purchased Reagent)		Hydrogen Chloride	100 %
.MTTMHNO3_00077	12/01/17	Macron/Avantor, Lot 0000119636			(Purchased Reagent)		Nitric acid	100 %
MTH202_00056	09/14/17	Macron, Lot 0000121776			(Purchased Reagent)		Hydrogen Peroxide	30 %
MTH2S04_00027	12/12/17	Macron, Lot 0000080085			(Purchased Reagent)		Sulfuric acid	100 %
MTHGCALW_01085	12/16/15	12/16/15	DIWATER, Lot DIWATER	100 mL	MTHGCAL_00020	1 mL	Mercury	100 ug/L
					MTTMHNO3_00077	0.125 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00020	04/29/18	INORGANIC VENTURES, Lot J2-HG02136			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00077	12/01/17	Macron/Avantor, Lot 0000119636			(Purchased Reagent)		Nitric acid	100 %
MTHGCALW_01086	12/17/15	12/17/15	DIWATER, Lot DIWATER	100 mL	MTHGCAL_00020	1 mL	Mercury	100 ug/L
					MTTMHNO3_00077	0.125 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00020	04/29/18	INORGANIC VENTURES, Lot J2-HG02136			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00077	12/01/17	Macron/Avantor, Lot 0000119636			(Purchased Reagent)		Nitric acid	100 %
MTHgStd_00020	05/18/16	HPS, Lot 1531727			(Purchased Reagent)		Mercury	1 ug/mL
MTICP1_00049	12/09/16	12/14/15	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00010	50 mL	Al	100000 ug/L
							Arsenic	100000 ug/L
							B	50000 ug/L
							Barium	100000 ug/L
							Be	2500 ug/L
							Cadmium	2500 ug/L
							Chromium	10000 ug/L
							Co	25000 ug/L
							Cu	12500 ug/L
							Fe	50000 ug/L
							Lead	25000 ug/L
							Mn	25000 ug/L
							Ni	25000 ug/L
							Selenium	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MTICPSPIKEB_00009	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00006	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00077	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00010	12/09/16	High Purity Standards, Lot 1534135			(Purchased Reagent)		Al	2000 ug/mL
							Arsenic	2000 ug/mL
							B	1000 ug/mL
							Barium	2000 ug/mL
							Be	50 ug/mL
							Cadmium	50 ug/mL
							Chromium	200 ug/mL
							Co	500 ug/mL
							Cu	250 ug/mL
							Fe	1000 ug/mL
							Lead	500 ug/mL
							Mn	500 ug/mL
							Ni	500 ug/mL
							Selenium	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00009	12/09/16	High Purity Standards, Lot 1534137			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00006	12/09/16	High Purity Standards, Lot 1534138			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00077	12/01/17	Macron/Avantor, Lot 0000119636			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00056	10/09/16	11/17/15	DIWATER, Lot DIWATER	1000 mL	MTTMHNO3_00075	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00013	250 mL	Ca	2500 mg/L
							K	2500 mg/L
							Mg	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00075	11/03/17	Macron/Avantor, Lot 0000118147			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00013	10/19/16	HIGH PURITY STANDARDS, Lot 1506106			(Purchased Reagent)		Ca	10000 ug/mL
							K	10000 ug/mL
							Mg	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00062	06/02/16	12/02/15	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00011	200 mL	Arsenic	500 ug/L
							Barium	2000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Lead	500 ug/L
							Selenium	500 ug/L
					MTICPCCV2_00011	200 mL	Silver	1000 ug/L
.MTICPCCV1_00011	11/01/16	INORGANIC VENTURES, Lot J2-MEB567093			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L
							Lead	5000 ug/L
							Selenium	5000 ug/L
.MTICPCCV2_00011	11/01/16	INORGANIC VENTURES, Lot J2-MEB567104			(Purchased Reagent)		Silver	10000 ug/L
MTICPCCV_00063	06/16/16	12/16/15	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00011	200 mL	Arsenic	500 ug/L
							Barium	2000 ug/L
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Lead	500 ug/L
							Selenium	500 ug/L
					MTICPCCV2_00011	200 mL	Silver	1000 ug/L
.MTICPCCV1_00011	11/01/16	INORGANIC VENTURES, Lot J2-MEB567093			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L
							Lead	5000 ug/L
							Selenium	5000 ug/L
.MTICPCCV2_00011	11/01/16	INORGANIC VENTURES, Lot J2-MEB567104			(Purchased Reagent)		Silver	10000 ug/L
MTICPICSABW_00009	03/14/16	09/14/15	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00004	100 mL	Al	500000 ug/L
							Arsenic	1000 ug/L
							B	500 ug/L
							Barium	500 ug/L
							Be	500 ug/L
							Ca	500000 ug/L
							Cadmium	1000 ug/L
							Chromium	500 ug/L
							Co	500 ug/L
							Cu	500 ug/L
							Fe	200000 ug/L
							K	10000 ug/L
							Lead	1000 ug/L
							Li	500 ug/L
							Mg	500000 ug/L
							Mn	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Selenium	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00004	100 mL	Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Silver	1000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00004	07/01/16	INORGANIC VENTURES, Lot H2-MEB546050			(Purchased Reagent)		Al	5000000 ug/L
							Arsenic	10000 ug/L
							B	5000 ug/L
							Barium	5000 ug/L
							Be	5000 ug/L
							Ca	5000000 ug/L
							Cadmium	10000 ug/L
							Chromium	5000 ug/L
							Co	5000 ug/L
							Cu	5000 ug/L
							Fe	2000000 ug/L
							K	100000 ug/L
							Lead	10000 ug/L
							Li	5000 ug/L
							Mg	5000000 ug/L
							Mn	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Selenium	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L
.MTICPICSAB2_00004	07/01/16	INORGANIC VENTURES, Lot H2-MEB546051			(Purchased Reagent)		Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Silver	10000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTICPICSABW_00010	06/02/16	12/02/15	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00004	100 mL	Al	500000 ug/L
							Arsenic	1000 ug/L
							B	500 ug/L
							Barium	500 ug/L
							Be	500 ug/L
							Ca	500000 ug/L
							Cadmium	1000 ug/L
							Chromium	500 ug/L
							Co	500 ug/L
							Cu	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fe	200000 ug/L
							K	10000 ug/L
							Lead	1000 ug/L
							Li	500 ug/L
							Mg	500000 ug/L
							Mn	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Selenium	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00004	100 mL	Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Silver	1000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00004	07/01/16	INORGANIC VENTURES, Lot H2-MEB546050			(Purchased Reagent)		Al	5000000 ug/L
							Arsenic	10000 ug/L
							B	5000 ug/L
							Barium	5000 ug/L
							Be	5000 ug/L
							Ca	5000000 ug/L
							Cadmium	10000 ug/L
							Chromium	5000 ug/L
							Co	5000 ug/L
							Cu	5000 ug/L
							Fe	2000000 ug/L
							K	100000 ug/L
							Lead	10000 ug/L
							Li	5000 ug/L
							Mg	5000000 ug/L
							Mn	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Selenium	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L
.MTICPICSAB2_00004	07/01/16	INORGANIC VENTURES, Lot H2-MEB546051			(Purchased Reagent)		Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Silver	10000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MTKMN04W_00100	10/06/17	12/09/15	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00024	125 g	Potassium Permanganate	50000 mg/L
.MTKMN04_00024	09/17/20	Fisher, Lot 143416			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTNONRCRA+ODD_00004	07/21/16	High-Purity Standards, Lot 1520124			(Purchased Reagent)		Al	100 ug/mL
							B	50 ug/mL
							Be	2.5 ug/mL
							Co	25 ug/mL
							Cu	12.5 ug/mL
							Fe	50 ug/mL
							Li	50 ug/mL
							Mn	25 ug/mL
							Mo	50 ug/mL
							Ni	25 ug/mL
							Sb	25 ug/mL
							Si	50 ug/mL
							Sn	100 ug/mL
							Sr	50 ug/mL
							Ti	50 ug/mL
							Tl	100 ug/mL
							V	25 ug/mL
							Zn	25 ug/mL
MTRCRA_00010	07/21/16	High Purity Standards, Lot 1520123			(Purchased Reagent)		Arsenic	500 mg/L
							Barium	5000 mg/L
							Cadmium	100 mg/L
							Chromium	500 mg/L
							Lead	500 mg/L
							Selenium	100 mg/L
							Silver	100 mg/L
MTTMHCL_00092	12/09/17	Fisher, Lot 4115080			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00077	12/01/17	Macron/Avantor, Lot 0000119636			(Purchased Reagent)		Nitric acid	100 %
MTTRICSAW_00028	03/03/16	09/14/15	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00013	100 mL	Al	500000 ug/L
							Ca	500000 ug/L
							Fe	200000 ug/L
							Mg	500000 ug/L
.MTTRICSA_00013	03/03/16	INORGANIC VENTURES, Lot H2-MEB525068			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
MTTRICSAW_00029	03/03/16	12/02/15	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00013	100 mL	Al	500000 ug/L
							Ca	500000 ug/L
							Fe	200000 ug/L
							Mg	500000 ug/L
.MTTRICSA_00013	03/03/16	INORGANIC VENTURES, Lot H2-MEB525068			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Pest ISTD_00003	02/07/16	08/07/15	HEXANE, Lot 116031	100 mL	Pest ISTD Stk_00001	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@.05ppm_00018	04/22/16	10/08/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	0.5 mL	PCB-1248 Peak 1	0.05 ug/mL
							PCB-1248 Peak 2	0.05 ug/mL
							PCB-1248 Peak 3	0.05 ug/mL
							PCB-1248 Peak 4	0.05 ug/mL
							PCB-1248 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00005	02/28/21	Restek, Lot A0107141			(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18	Restek, Lot A0108735			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.1PPM_00015	04/22/16	10/08/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	1 mL	PCB-1248 Peak 1	0.1 ug/mL
							PCB-1248 Peak 2	0.1 ug/mL
							PCB-1248 Peak 3	0.1 ug/mL
							PCB-1248 Peak 4	0.1 ug/mL
							PCB-1248 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00005	02/28/21	Restek, Lot A0107141			(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18	Restek, Lot A0108735			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.2ppm_00015	04/22/16	10/08/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	2 mL	PCB-1248 Peak 1	0.2 ug/mL
							PCB-1248 Peak 2	0.2 ug/mL
							PCB-1248 Peak 3	0.2 ug/mL
							PCB-1248 Peak 4	0.2 ug/mL
							PCB-1248 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00005	02/28/21		Restek, Lot A0107141		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00020	04/22/16	10/08/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	5 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00005	02/28/21		Restek, Lot A0107141		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00020	04/22/16	10/08/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	5 mL	Aroclor-1248	0.5 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	Aroclor-1248	10 ug/mL
..SG1248_00005	02/28/21		Restek, Lot A0107141		(Purchased Reagent)		Aroclor-1248	1000 ug/mL
SG1248@1.0ppm_00014	04/22/16	10/08/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	10 mL	PCB-1248 Peak 1	1 ug/mL
							PCB-1248 Peak 2	1 ug/mL
							PCB-1248 Peak 3	1 ug/mL
							PCB-1248 Peak 4	1 ug/mL
							PCB-1248 Peak 5	1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00005	02/28/21		Restek, Lot A0107141		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@2.0ppm_00014	04/22/16	08/24/15	HEXANE, Lot 154006	100 mL	SG1248@10ppm_00008	20 mL	PCB-1248 Peak 1	2 ug/mL
							PCB-1248 Peak 2	2 ug/mL
							PCB-1248 Peak 3	2 ug/mL
							PCB-1248 Peak 4	2 ug/mL
							PCB-1248 Peak 5	2 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00008	08/24/16	08/24/15	Hexane, Lot 151838	100 mL	SG1248_00005	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00005	02/28/21		Restek, Lot A0107141		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660@.05PPM_00016	04/22/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260_00019	0.5 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	0.125 mL	DCB Decachlorobiphenyl	0.0025 ug/mL
							Tetrachloro-m-xylene	0.0025 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00009	05/31/21		Restek, Lot a109056		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.2ppm_00018	04/22/16	11/13/15	HEXANE, Lot 00000101243	100 mL	SG1016/1260_00019	2 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	0.5 mL	DCB Decachlorobiphenyl	0.01 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00009	05/31/21		Restek, Lot a109056		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00058	04/22/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260_00019	5 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	1.25 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00009	05/31/21		Restek, Lot a109056		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00058	04/22/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260_00019	5 mL	Aroclor-1016	0.5 ug/mL
							Aroclor-1260	0.5 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SG1016/1260MX_00009	05/31/21		Restek, Lot a109056		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
SG1660@1.0PPM_00016	04/22/16	11/13/15	HEXANE, Lot 00000101243	100 mL	SG1016/1260_00019	10 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	2.5 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00009	05/31/21		Restek, Lot a109056		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20		Restek, Lot A0103185		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@2.0PPM_00015	04/22/16	11/13/15	HEXANE, Lot 00000101243	100 mL	SG1016/1260_00019	20 mL	PCB-1016 Peak 1	2 ug/mL
							PCB-1016 Peak 2	2 ug/mL
							PCB-1016 Peak 3	2 ug/mL
							PCB-1016 Peak 4	2 ug/mL
							PCB-1016 Peak 5	2 ug/mL
							PCB-1260 Peak 1	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 2	2 ug/mL
							PCB-1260 Peak 3	2 ug/mL
							PCB-1260 Peak 4	2 ug/mL
							PCB-1260 Peak 5	2 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	5 mL	DCB Decachlorobiphenyl	0.1 ug/mL
							Tetrachloro-m-xylene	0.1 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00009	05/31/21	Restek, Lot a109056			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18	Restek, Lot A0108735			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20	Restek, Lot A0103185			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660ICV@1.0_00015	04/21/16	11/03/15	HEXANE, Lot 0000101243	10 mL	SGPCBIS STOCk_00003	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18	Restek, Lot A0108735			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660ICV@1.0_00015	04/21/16	11/03/15	HEXANE, Lot 0000101243	10 mL	SG1660ICV@100_00005	0.1 mL	Aroclor-1016	1 ug/mL
							Aroclor-1260	1 ug/mL
					SGPCGSURRSTK_00006	0.25 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1660ICV@100_00005	10/28/16	10/28/15	HEXANE, Lot 0000101243	10 mL	SG 1660 ICV_00012	1 mL	Aroclor-1016	100 ug/mL
							Aroclor-1260	100 ug/mL
..SG 1660 ICV_00012	01/30/22	restek, Lot a0114674			(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20	Restek, Lot A0103185			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloro-m-xylene	200 ug/mL
SG1660STD@0.1_00016	04/22/16	11/13/15	HEXANE, Lot 154006	100 mL	SG1016/1260_00019	1 mL	PCB-1016 Peak 1	0.1 ug/mL
							PCB-1016 Peak 2	0.1 ug/mL
							PCB-1016 Peak 3	0.1 ug/mL
							PCB-1016 Peak 4	0.1 ug/mL
							PCB-1016 Peak 5	0.1 ug/mL
							PCB-1260 Peak 1	0.1 ug/mL
							PCB-1260 Peak 2	0.1 ug/mL
							PCB-1260 Peak 3	0.1 ug/mL
							PCB-1260 Peak 4	0.1 ug/mL
							PCB-1260 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00006	0.25 mL	DCB Decachlorobiphenyl	0.005 ug/mL
							Tetrachloro-m-xylene	0.005 ug/mL
.SG1016/1260_00019	11/13/16	11/13/15	HEXANE, Lot 0000101243	100 mL	SG1016/1260MX_00009	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00009	05/31/21	Restek, Lot a109056			(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18	Restek, Lot A0108735			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00006	05/04/16	05/04/15	HEXANE, Lot 0000086800	100 mL	SGPESTSURR_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00007	08/31/20	Restek, Lot A0103185			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG2154@0.05PP_00010	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	0.5 mL	PCB-1221 Peak 1	0.05 ug/mL
							PCB-1221 Peak 2	0.05 ug/mL
							PCB-1221 Peak 3	0.05 ug/mL
							PCB-1254 Peak 1	0.05 ug/mL
							PCB-1254 Peak 2	0.05 ug/mL
							PCB-1254 Peak 3	0.05 ug/mL
							PCB-1254 Peak 4	0.05 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.2PPM_00012	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	2 mL	PCB-1221 Peak 1	0.2 ug/mL
							PCB-1221 Peak 2	0.2 ug/mL
							PCB-1221 Peak 3	0.2 ug/mL
							PCB-1254 Peak 1	0.2 ug/mL
							PCB-1254 Peak 2	0.2 ug/mL
							PCB-1254 Peak 3	0.2 ug/mL
							PCB-1254 Peak 4	0.2 ug/mL
							PCB-1254 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG2154@0.5PPM_00021	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	5 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
							PCB-1254 Peak 1	0.5 ug/mL
							PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00021	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	5 mL	Aroclor-1221	0.5 ug/mL
							Aroclor-1254	0.5 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	Aroclor-1221	10 ug/mL
							Aroclor-1254	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		Aroclor-1221	1000 ug/mL
							Aroclor-1254	1000 ug/mL
SG2154@1.0PPM_00014	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	10 mL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
							PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@2.0PPM_00011	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	20 mL	PCB-1221 Peak 1	2 ug/mL
							PCB-1221 Peak 2	2 ug/mL
							PCB-1221 Peak 3	2 ug/mL
							PCB-1254 Peak 1	2 ug/mL
							PCB-1254 Peak 2	2 ug/mL
							PCB-1254 Peak 3	2 ug/mL
							PCB-1254 Peak 4	2 ug/mL
							PCB-1254 Peak 5	2 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@O.1PPM_00013	03/11/16	10/06/15	HEXANE, Lot 154006	100 mL	SG2154@10ppm_00009	1 mL	PCB-1221 Peak 1	0.1 ug/mL
							PCB-1221 Peak 2	0.1 ug/mL
							PCB-1221 Peak 3	0.1 ug/mL
							PCB-1254 Peak 1	0.1 ug/mL
							PCB-1254 Peak 2	0.1 ug/mL
							PCB-1254 Peak 3	0.1 ug/mL
							PCB-1254 Peak 4	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00009	03/11/16	06/09/15	HEXANE, Lot 0000096800	100 mL	SG1221/1254_00001	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00001	03/11/16		restek, Lot a0108261		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.05PPM_00004	03/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00003	0.5 mL	PCB-1232 Peak 1	50 ug/L
							PCB-1232 Peak 2	50 ug/L
							PCB-1232 Peak 3	50 ug/L
							PCB-1232 Peak 4	50 ug/L
							PCB-1232 Peak 5	50 ug/L
							PCB-1262 Peak 1	50 ug/L
							PCB-1262 Peak 2	50 ug/L
							PCB-1262 Peak 3	50 ug/L
							PCB-1262 Peak 4	50 ug/L
							PCB-1262 Peak 5	50 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00003	09/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/62 STK_00001	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
							PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SG32/62 STK_00001	04/30/21		Restelk, Lot A0108264		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.2PPM_00005	03/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00002	2 mL	PCB-1232 Peak 1	200 ug/L
							PCB-1232 Peak 2	200 ug/L
							PCB-1232 Peak 3	200 ug/L
							PCB-1232 Peak 4	200 ug/L
							PCB-1232 Peak 5	200 ug/L
							PCB-1262 Peak 1	200 ug/L
							PCB-1262 Peak 2	200 ug/L
							PCB-1262 Peak 3	200 ug/L
							PCB-1262 Peak 4	200 ug/L
							PCB-1262 Peak 5	200 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.1PPM_00006	03/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00002	1 mL	PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
							PCB-1262 Peak 1	100 ug/L
							PCB-1262 Peak 2	100 ug/L
							PCB-1262 Peak 3	100 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 4	100 ug/L
							PCB-1262 Peak 5	100 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00010	04/22/16	10/06/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00003	5 mL	PCB-1232 Peak 1	500 ug/L
							PCB-1232 Peak 2	500 ug/L
							PCB-1232 Peak 3	500 ug/L
							PCB-1232 Peak 4	500 ug/L
							PCB-1232 Peak 5	500 ug/L
							PCB-1262 Peak 1	500 ug/L
							PCB-1262 Peak 2	500 ug/L
							PCB-1262 Peak 3	500 ug/L
							PCB-1262 Peak 4	500 ug/L
							PCB-1262 Peak 5	500 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00003	09/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/62 STK_00001	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
							PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SG32/62 STK_00001	04/30/21		Restelk, Lot A0108264		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00010	04/22/16	10/06/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00003	5 mL	Aroclor-1232	500 ug/L
							PCB-1262	500 ug/L
.SG32/6210PPM_00003	09/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/62 STK_00001	1 mL	Aroclor-1232	10000 ug/L
							PCB-1262	10000 ug/L
..SG32/62 STK_00001	04/30/21		Restelk, Lot A0108264		(Purchased Reagent)		Aroclor-1232	1000 ug/mL
							PCB-1262	1000 ug/mL
SG3262@1.0PPM_00005	03/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00002	10 mL	PCB-1232 Peak 1	1000 ug/L
							PCB-1232 Peak 2	1000 ug/L
							PCB-1232 Peak 3	1000 ug/L
							PCB-1232 Peak 4	1000 ug/L
							PCB-1232 Peak 5	1000 ug/L
							PCB-1262 Peak 1	1000 ug/L
							PCB-1262 Peak 2	1000 ug/L
							PCB-1262 Peak 3	1000 ug/L
							PCB-1262 Peak 4	1000 ug/L
							PCB-1262 Peak 5	1000 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@2.0ppm_00004	03/25/16	09/25/15	HEXANE, Lot 154006	100 mL	SG32/6210PPM_00002	20 mL	PCB-1232 Peak 1	2000 ug/L
							PCB-1232 Peak 2	2000 ug/L
							PCB-1232 Peak 3	2000 ug/L
							PCB-1232 Peak 4	2000 ug/L
							PCB-1232 Peak 5	2000 ug/L
							PCB-1262 Peak 1	2000 ug/L
							PCB-1262 Peak 2	2000 ug/L
							PCB-1262 Peak 3	2000 ug/L
							PCB-1262 Peak 4	2000 ug/L
							PCB-1262 Peak 5	2000 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00002	04/24/16	04/24/15	HEXANE, Lot 0000096800	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00005	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00005	05/31/20		restek, Lot A0101379		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG42/68@1.0PP_00008	04/01/16	10/01/15	HEXANE, Lot 00000154006	100 mL	SG42/6810PPM_00002	10 mL	PCB-1242 Peak 1	1000 ug/L
							PCB-1242 Peak 2	1000 ug/L
							PCB-1242 Peak 3	1000 ug/L
							PCB-1242 Peak 4	1000 ug/L
							PCB-1242 Peak 5	1000 ug/L
							PCB-1268 Peak 1	1000 ug/L
							PCB-1268 Peak 2	1000 ug/L
							PCB-1268 Peak 3	1000 ug/L
							PCB-1268 Peak 4	1000 ug/L
							PCB-1268 Peak 5	1000 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.05PPM_00005	04/01/16	10/01/15	HEXANE, Lot 00000154006	100 mL	SG42/6810PPM_00002	0.5 mL	PCB-1242 Peak 1	50 ug/L
							PCB-1242 Peak 2	50 ug/L
							PCB-1242 Peak 3	50 ug/L
							PCB-1242 Peak 4	50 ug/L
							PCB-1242 Peak 5	50 ug/L
							PCB-1268 Peak 1	50 ug/L
							PCB-1268 Peak 2	50 ug/L
							PCB-1268 Peak 3	50 ug/L
							PCB-1268 Peak 4	50 ug/L
							PCB-1268 Peak 5	50 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.1PPM_00006	04/01/16	10/01/15	HEXANE, Lot 00000154006	100 mL	SG42/6810PPM_00002	1 mL	PCB-1242 Peak 1	100 ug/L
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.2PPM_00005	04/01/16	10/01/15	HEXANE, Lot 00000154006	100 mL	SG42/6810PPM_00002	2 mL	PCB-1242 Peak 1	200 ug/L
							PCB-1242 Peak 2	200 ug/L
							PCB-1242 Peak 3	200 ug/L
							PCB-1242 Peak 4	200 ug/L
							PCB-1242 Peak 5	200 ug/L
							PCB-1268 Peak 1	200 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 2	200 ug/L
							PCB-1268 Peak 3	200 ug/L
							PCB-1268 Peak 4	200 ug/L
							PCB-1268 Peak 5	200 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00007	12/24/15	06/24/15	HEXANE, Lot 0000086560	100 mL	SG42/6810PPM_00002	5 mL	PCB-1242 Peak 1	500 ug/L
							PCB-1242 Peak 2	500 ug/L
							PCB-1242 Peak 3	500 ug/L
							PCB-1242 Peak 4	500 ug/L
							PCB-1242 Peak 5	500 ug/L
							PCB-1268 Peak 1	500 ug/L
							PCB-1268 Peak 2	500 ug/L
							PCB-1268 Peak 3	500 ug/L
							PCB-1268 Peak 4	500 ug/L
							PCB-1268 Peak 5	500 ug/L
					SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00011	04/07/16	10/07/15	HEXANE, Lot 154006	100 mL	SGPCBIS STOCk_00002	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SGPCBIS STOCk_00002	04/22/16	04/22/15	HEXANE, Lot 0000086560	100 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00011	04/07/16	10/07/15	HEXANE, Lot 154006	100 mL	SG42/6810PPM_00003	5 mL	Aroclor-1242	500 ug/L
							PCB-1242 Peak 1	500 ug/L
							PCB-1242 Peak 2	500 ug/L
							PCB-1242 Peak 3	500 ug/L
							PCB-1242 Peak 4	500 ug/L
							PCB-1242 Peak 5	500 ug/L
							PCB-1268	500 ug/L
							PCB-1268 Peak 1	500 ug/L
							PCB-1268 Peak 2	500 ug/L
							PCB-1268 Peak 3	500 ug/L
							PCB-1268 Peak 4	500 ug/L
							PCB-1268 Peak 5	500 ug/L
.SG42/6810PPM_00003	10/07/16	10/07/15	HEXANE, Lot 154006	100 mL	SG 42/68 STK_00001	1 mL	Aroclor-1242	10000 ug/L
							PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00001	04/30/21		RESTEK, Lot A0108269		(Purchased Reagent)		Aroclor-1242	1000 ug/mL
							PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SG4268@2.0PPM_00004	04/01/16	10/01/15	HEXANE, Lot 00000154006	100 mL	SG42/6810PPM_00002	20 mL	PCB-1242 Peak 1	2000 ug/L
							PCB-1242 Peak 2	2000 ug/L
							PCB-1242 Peak 3	2000 ug/L
							PCB-1242 Peak 4	2000 ug/L
							PCB-1242 Peak 5	2000 ug/L
							PCB-1268 Peak 1	2000 ug/L
							PCB-1268 Peak 2	2000 ug/L
							PCB-1268 Peak 3	2000 ug/L
							PCB-1268 Peak 4	2000 ug/L
							PCB-1268 Peak 5	2000 ug/L
					SGPCBIS STOCk_00003	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00002	04/28/16	04/28/15	HEXANE, Lot 0000096800	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00006	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00006	12/31/19		Restek, Lot A097795		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18		Restek, Lot A0108735		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SGDROCAL_00021	05/30/16	11/30/15	MECL2, Lot SGDRODCM_00001	25 mL	SGDROCALSTK_00020	5 mL	Diesel	10000 ug/mL
					SGDROSURROTP_00027	2 mL	o-Terphenyl (Surr)	800 ug/mL
.SGDROCALSTK_00020	04/30/22		Restek, Lot A0109732		(Purchased Reagent)		Diesel	50000 ug/mL
.SGDROSURROTP_00027	12/31/18		Restek, Lot A0110923		(Purchased Reagent)		o-Terphenyl (Surr)	10000 ug/mL
SGDROICV_00015	08/26/16	08/26/15	MECL2, Lot 2091477	25 mL	SGDROICVSTK_00008	1 mL	Diesel	2006 ug/mL
.SGDROICVSTK_00008	08/31/18		Ultra, Lot CL-2929		(Purchased Reagent)		Diesel	50150 ug/mL
SGHERBICV_00030	12/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBICVSTK_00004	1 mL	2,4-Dichlorophenylacetic acid	0.08 ug/mL
.SGHERBICVSTK_00004	04/20/17		RESTEK, Lot A0110431		(Purchased Reagent)		2,4-Dichlorophenylacetic acid	8 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SGHERBICV_00030	12/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBICVSTK_00004	1 mL	2,4-D	0.08 ug/mL
							Silvex (2,4,5-TP)	0.02 ug/mL
.SGHERBICVSTK_00004	04/20/17	RESTEK, Lot A0110431			(Purchased Reagent)		2,4-D	8 ug/mL
							Silvex (2,4,5-TP)	2 ug/mL
SGHERBL1_00016	06/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBST_00017	100 uL	2,4,5-T	0.005 ug/mL
							2,4-D	0.02 ug/mL
							2,4-DB	0.02 ug/mL
							2,4-Dichlorophenylacetic acid	0.02 ug/mL
							Dalapon	0.01 ug/mL
							Dicamba	0.01 ug/mL
							Dichlorprop	0.02 ug/mL
							Dinoseb	0.003 ug/mL
							MCPA	2 ug/mL
							MCPP	2 ug/mL
							Silvex (2,4,5-TP)	0.005 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17	Ultra Scientific, Lot CM-1579			(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL
SGHERBL2_00013	06/10/16	12/10/15	HEXANE, Lot 00000116331	100 mL	SGHERBST_00017	200 uL	2,4,5-T	0.01 ug/mL
							2,4-D	0.04 ug/mL
							2,4-DB	0.04 ug/mL
							2,4-Dichlorophenylacetic acid	0.04 ug/mL
							Dalapon	0.02 ug/mL
							Dicamba	0.02 ug/mL
							Dichlorprop	0.04 ug/mL
							Dinoseb	0.006 ug/mL
							MCPA	4 ug/mL
							MCPP	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Silvex (2,4,5-TP)	0.01 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17	Ultra Scientific, Lot CM-1579			(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL
SGHERBL3_00022	06/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBST_00017	400 uL	2,4,5-T	0.02 ug/mL
							2,4-D	0.08 ug/mL
							2,4-DB	0.08 ug/mL
							2,4-Dichlorophenylacetic acid	0.08 ug/mL
							Dalapon	0.04 ug/mL
							Dicamba	0.04 ug/mL
							Dichlorprop	0.08 ug/mL
							Dinoseb	0.012 ug/mL
							MCPA	8 ug/mL
							MCPP	8 ug/mL
							Silvex (2,4,5-TP)	0.02 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17	Ultra Scientific, Lot CM-1579			(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL
SGHERBL4_00013	06/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBST_00017	800 uL	2,4,5-T	0.04 ug/mL
							2,4-D	0.16 ug/mL
							2,4-DB	0.16 ug/mL
							2,4-Dichlorophenylacetic acid	0.16 ug/mL
							Dalapon	0.08 ug/mL
							Dicamba	0.08 ug/mL
							Dichlorprop	0.16 ug/mL
							Dinoseb	0.024 ug/mL
							MCPA	16 ug/mL
							MCPP	16 ug/mL
							Silvex (2,4,5-TP)	0.04 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17	Ultra Scientific, Lot CM-1579			(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL
SGHERBL5_00014	06/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBST_00017	1000 uL	2,4,5-T	0.05 ug/mL
							2,4-D	0.2 ug/mL
							2,4-DB	0.2 ug/mL
							2,4-Dichlorophenylacetic acid	0.2 ug/mL
							Dalapon	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dicamba	0.1 ug/mL
							Dichlorprop	0.2 ug/mL
							Dinoseb	0.03 ug/mL
							MCPA	20 ug/mL
							MCPP	20 ug/mL
							Silvex (2,4,5-TP)	0.05 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17	Ultra Scientific, Lot CM-1579			(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL
SGHERBL6_00015	06/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBST_00017	2 mL	2,4,5-T	0.1 ug/mL
							2,4-D	0.4 ug/mL
							2,4-DB	0.4 ug/mL
							2,4-Dichlorophenylacetic acid	0.4 ug/mL
							Dalapon	0.2 ug/mL
							Dicamba	0.2 ug/mL
							Dichlorprop	0.4 ug/mL
							Dinoseb	0.06 ug/mL
							MCPA	40 ug/mL
							MCPP	40 ug/mL
							Silvex (2,4,5-TP)	0.1 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17		Ultra Scientific, Lot CM-1579		(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL
SGHERBL7_00006	06/10/16	12/10/15	HEXANE, Lot 0000116331	100 mL	SGHERBST_00017	4 mL	2,4,5-T	0.2 ug/mL
							2,4-D	0.8 ug/mL
							2,4-DB	0.8 ug/mL
							2,4-Dichlorophenylacetic acid	0.8 ug/mL
							Dalapon	0.4 ug/mL
							Dicamba	0.4 ug/mL
							Dichlorprop	0.8 ug/mL
							Dinoseb	0.12 ug/mL
							MCPA	80 ug/mL
							MCPP	80 ug/mL
							Silvex (2,4,5-TP)	0.2 ug/mL
.SGHERBST_00017	12/10/16	12/10/15	HEXANE, Lot 0000116331	10 mL	SGHERB_00023	1 mL	2,4,5-T	5 ug/mL
							2,4-D	20 ug/mL
							2,4-DB	20 ug/mL
							2,4-Dichlorophenylacetic acid	20 ug/mL
							Dalapon	10 ug/mL
							Dicamba	10 ug/mL
							Dichlorprop	20 ug/mL
							Dinoseb	3 ug/mL
							MCPA	2000 ug/mL
							MCPP	2000 ug/mL
							Silvex (2,4,5-TP)	5 ug/mL
..SGHERB_00023	04/30/17		Ultra Scientific, Lot CM-1579		(Purchased Reagent)		2,4,5-T	50 ug/mL
							2,4-D	200 ug/mL
							2,4-DB	200 ug/mL
							2,4-Dichlorophenylacetic acid	200 ug/mL
							Dalapon	100 ug/mL
							Dicamba	100 ug/mL
							Dichlorprop	200 ug/mL
							Dinoseb	30 ug/mL
							MCPA	20000 ug/mL
							MCPP	20000 ug/mL
							Silvex (2,4,5-TP)	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SGPCBISTD_00003	04/22/16	10/13/15	HEXANE, Lot 154006	100 mL	SGPCBIS STOCk_00003	10 mL	1-Bromo-2-nitrobenzene	1 ug/mL
.SGPCBIS STOCk_00003	04/22/16	04/22/15	HEXANE, Lot 000017549	100 mL	ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00001	04/30/18	Restek, Lot A0108735			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SGPestAB1 IS_00002	12/27/15	07/27/15	HEXANE, Lot 151838	100 mL	Pest ISTD Stk_00001	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTABST_00015	25 uL	4,4'-DDD	0.005 ug/mL
							4,4'-DDE	0.005 ug/mL
							4,4'-DDT	0.005 ug/mL
							Aldrin	0.005 ug/mL
							alpha-BHC	0.005 ug/mL
							alpha-Chlordane	0.005 ug/mL
							beta-BHC	0.005 ug/mL
							delta-BHC	0.005 ug/mL
							Dieldrin	0.005 ug/mL
							Endosulfan I	0.005 ug/mL
							Endosulfan II	0.005 ug/mL
							Endosulfan sulfate	0.005 ug/mL
							Endrin	0.005 ug/mL
							Endrin aldehyde	0.005 ug/mL
							Endrin ketone	0.005 ug/mL
							gamma-BHC (Lindane)	0.005 ug/mL
							gamma-Chlordane	0.005 ug/mL
							Heptachlor	0.005 ug/mL
							Heptachlor epoxide	0.005 ug/mL
							Methoxychlor	0.005 ug/mL
							DCB Decachlorobiphenyl	0.005 ug/mL
							Tetrachloro-m-xylene	0.005 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTABST_00015	12/28/15	07/24/15	HEXANE, Lot 151838	10 mL	sgpestabcorp1_00007	1 mL	4,4'-DDD	20 ug/mL
							4,4'-DDE	20 ug/mL
							4,4'-DDT	20 ug/mL
							Aldrin	20 ug/mL
							alpha-BHC	20 ug/mL
							alpha-Chlordane	20 ug/mL
							beta-BHC	20 ug/mL
							delta-BHC	20 ug/mL
							Dieldrin	20 ug/mL
							Endosulfan I	20 ug/mL
							Endosulfan II	20 ug/mL
							Endosulfan sulfate	20 ug/mL
							Endrin	20 ug/mL
							Endrin aldehyde	20 ug/mL
							Endrin ketone	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							gamma-Chlordane	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methoxychlor	20 ug/mL
					SGPESTSURR_00008	1 mL	DCB Decachlorobiphenyl	20 ug/mL
							Tetrachloro-m-xylene	20 ug/mL
..sgpestabcorp1_00007	12/29/15	07/24/15	HEXANE, Lot 151838	10 mL	SGPESTAB #3_00004	1 mL	4,4'-DDD	200 ug/mL
							4,4'-DDE	200 ug/mL
							4,4'-DDT	200 ug/mL
							Aldrin	200 ug/mL
							alpha-BHC	200 ug/mL
							alpha-Chlordane	200 ug/mL
							beta-BHC	200 ug/mL
							delta-BHC	200 ug/mL
							Dieldrin	200 ug/mL
							Endosulfan I	200 ug/mL
							Endosulfan II	200 ug/mL
							Endosulfan sulfate	200 ug/mL
							Endrin	200 ug/mL
							Endrin aldehyde	200 ug/mL
							Endrin ketone	200 ug/mL
							gamma-BHC (Lindane)	200 ug/mL
							gamma-Chlordane	200 ug/mL
							Heptachlor	200 ug/mL
							Heptachlor epoxide	200 ug/mL
							Methoxychlor	200 ug/mL
...SGPESTAB #3_00004	09/30/18		Restek, Lot A0106146		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPestAB2_00012	12/27/15	07/27/15	HEXANE, Lot 151838	100 mL	Pest ISTD Stk_00001	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTABST_00015	50 uL	4,4'-DDD	0.01 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDE	0.01 ug/mL
							4,4'-DDT	0.01 ug/mL
							Aldrin	0.01 ug/mL
							alpha-BHC	0.01 ug/mL
							alpha-Chlordane	0.01 ug/mL
							beta-BHC	0.01 ug/mL
							delta-BHC	0.01 ug/mL
							Dieldrin	0.01 ug/mL
							Endosulfan I	0.01 ug/mL
							Endosulfan II	0.01 ug/mL
							Endosulfan sulfate	0.01 ug/mL
							Endrin	0.01 ug/mL
							Endrin aldehyde	0.01 ug/mL
							Endrin ketone	0.01 ug/mL
							gamma-BHC (Lindane)	0.01 ug/mL
							gamma-Chlordane	0.01 ug/mL
							Heptachlor	0.01 ug/mL
							Heptachlor epoxide	0.01 ug/mL
							Methoxychlor	0.01 ug/mL
							DCB Decachlorobiphenyl	0.01 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTABST_00015	12/28/15	07/24/15	HEXANE, Lot 151838	10 mL	sgpestabcorp1_00007	1 mL	4,4'-DDD	20 ug/mL
							4,4'-DDE	20 ug/mL
							4,4'-DDT	20 ug/mL
							Aldrin	20 ug/mL
							alpha-BHC	20 ug/mL
							alpha-Chlordane	20 ug/mL
							beta-BHC	20 ug/mL
							delta-BHC	20 ug/mL
							Dieldrin	20 ug/mL
							Endosulfan I	20 ug/mL
							Endosulfan II	20 ug/mL
							Endosulfan sulfate	20 ug/mL
							Endrin	20 ug/mL
							Endrin aldehyde	20 ug/mL
							Endrin ketone	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							gamma-Chlordane	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL
							Methoxychlor	20 ug/mL
					SGPESTSURR_00008	1 mL	DCB Decachlorobiphenyl	20 ug/mL
							Tetrachloro-m-xylene	20 ug/mL
..sgpestabcorp1_00007	12/29/15	07/24/15	HEXANE, Lot 151838	10 mL	SGPESTAB #3_00004	1 mL	4,4'-DDD	200 ug/mL
							4,4'-DDE	200 ug/mL
							4,4'-DDT	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aldrin	200 ug/mL
							alpha-BHC	200 ug/mL
							alpha-Chlordane	200 ug/mL
							beta-BHC	200 ug/mL
							delta-BHC	200 ug/mL
							Dieldrin	200 ug/mL
							Endosulfan I	200 ug/mL
							Endosulfan II	200 ug/mL
							Endosulfan sulfate	200 ug/mL
							Endrin	200 ug/mL
							Endrin aldehyde	200 ug/mL
							Endrin ketone	200 ug/mL
							gamma-BHC (Lindane)	200 ug/mL
							gamma-Chlordane	200 ug/mL
							Heptachlor	200 ug/mL
							Heptachlor epoxide	200 ug/mL
							Methoxychlor	200 ug/mL
...SGPESTAB #3_00004	09/30/18		Restek, Lot A0106146		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPestAB3_00020	12/27/15	11/13/15	HEXANE, Lot 101243	100 mL	Pest ISTD Stk_00002	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTABST_00015	125 uL	4,4'-DDD	0.025 ug/mL
							4,4'-DDE	0.025 ug/mL
							4,4'-DDT	0.025 ug/mL
							Aldrin	0.025 ug/mL
							alpha-BHC	0.025 ug/mL
							alpha-Chlordane	0.025 ug/mL
							beta-BHC	0.025 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							delta-BHC	0.025 ug/mL
							Dieldrin	0.025 ug/mL
							Endosulfan I	0.025 ug/mL
							Endosulfan II	0.025 ug/mL
							Endosulfan sulfate	0.025 ug/mL
							Endrin	0.025 ug/mL
							Endrin aldehyde	0.025 ug/mL
							Endrin ketone	0.025 ug/mL
							gamma-BHC (Lindane)	0.025 ug/mL
							gamma-Chlordane	0.025 ug/mL
							Heptachlor	0.025 ug/mL
							Heptachlor epoxide	0.025 ug/mL
							Methoxychlor	0.025 ug/mL
							DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.Pest ISTD Stk_00002	05/13/16	11/13/15	HEXANE, Lot 101243	10 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTABST_00015	12/28/15	07/24/15	HEXANE, Lot 151838	10 mL	sgpestabcorp1_00007	1 mL	4,4'-DDD	20 ug/mL
							4,4'-DDE	20 ug/mL
							4,4'-DDT	20 ug/mL
							Aldrin	20 ug/mL
							alpha-BHC	20 ug/mL
							alpha-Chlordane	20 ug/mL
							beta-BHC	20 ug/mL
							delta-BHC	20 ug/mL
							Dieldrin	20 ug/mL
							Endosulfan I	20 ug/mL
							Endosulfan II	20 ug/mL
							Endosulfan sulfate	20 ug/mL
							Endrin	20 ug/mL
							Endrin aldehyde	20 ug/mL
							Endrin ketone	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							gamma-Chlordane	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL
							Methoxychlor	20 ug/mL
					SGPESTSURR_00008	1 mL	DCB Decachlorobiphenyl	20 ug/mL
							Tetrachloro-m-xylene	20 ug/mL
..sgpestabcorp1_00007	12/29/15	07/24/15	HEXANE, Lot 151838	10 mL	SGPESTAB #3_00004	1 mL	4,4'-DDD	200 ug/mL
							4,4'-DDE	200 ug/mL
							4,4'-DDT	200 ug/mL
							Aldrin	200 ug/mL
							alpha-BHC	200 ug/mL
							alpha-Chlordane	200 ug/mL
							beta-BHC	200 ug/mL
							delta-BHC	200 ug/mL
							Dieldrin	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Endosulfan I	200 ug/mL
							Endosulfan II	200 ug/mL
							Endosulfan sulfate	200 ug/mL
							Endrin	200 ug/mL
							Endrin aldehyde	200 ug/mL
							Endrin ketone	200 ug/mL
							gamma-BHC (Lindane)	200 ug/mL
							gamma-Chlordane	200 ug/mL
							Heptachlor	200 ug/mL
							Heptachlor epoxide	200 ug/mL
							Methoxychlor	200 ug/mL
...SGPESTAB #3_00004	09/30/18		Restek, Lot A0106146		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPestAB4_00012	12/27/15	07/27/15	HEXANE, Lot 151838	100 mL	Pest ISTD Stk_00001	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTABST_00015	250 uL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	0.05 ug/mL
							Aldrin	0.05 ug/mL
							alpha-BHC	0.05 ug/mL
							alpha-Chlordane	0.05 ug/mL
							beta-BHC	0.05 ug/mL
							delta-BHC	0.05 ug/mL
							Dieldrin	0.05 ug/mL
							Endosulfan I	0.05 ug/mL
							Endosulfan II	0.05 ug/mL
							Endosulfan sulfate	0.05 ug/mL
							Endrin	0.05 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Endrin aldehyde	0.05 ug/mL
							Endrin ketone	0.05 ug/mL
							gamma-BHC (Lindane)	0.05 ug/mL
							gamma-Chlordane	0.05 ug/mL
							Heptachlor	0.05 ug/mL
							Heptachlor epoxide	0.05 ug/mL
							Methoxychlor	0.05 ug/mL
							DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTABST_00015	12/28/15	07/24/15	HEXANE, Lot 151838	10 mL	sgpestabcorp1_00007	1 mL	4,4'-DDD	20 ug/mL
							4,4'-DDE	20 ug/mL
							4,4'-DDT	20 ug/mL
							Aldrin	20 ug/mL
							alpha-BHC	20 ug/mL
							alpha-Chlordane	20 ug/mL
							beta-BHC	20 ug/mL
							delta-BHC	20 ug/mL
							Dieldrin	20 ug/mL
							Endosulfan I	20 ug/mL
							Endosulfan II	20 ug/mL
							Endosulfan sulfate	20 ug/mL
							Endrin	20 ug/mL
							Endrin aldehyde	20 ug/mL
							Endrin ketone	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							gamma-Chlordane	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL
							Methoxychlor	20 ug/mL
					SGPESTSURR_00008	1 mL	DCB Decachlorobiphenyl	20 ug/mL
							Tetrachloro-m-xylene	20 ug/mL
..sgpestabcorp1_00007	12/29/15	07/24/15	HEXANE, Lot 151838	10 mL	SGPESTAB #3_00004	1 mL	4,4'-DDD	200 ug/mL
							4,4'-DDE	200 ug/mL
							4,4'-DDT	200 ug/mL
							Aldrin	200 ug/mL
							alpha-BHC	200 ug/mL
							alpha-Chlordane	200 ug/mL
							beta-BHC	200 ug/mL
							delta-BHC	200 ug/mL
							Dieldrin	200 ug/mL
							Endosulfan I	200 ug/mL
							Endosulfan II	200 ug/mL
							Endosulfan sulfate	200 ug/mL
							Endrin	200 ug/mL
							Endrin aldehyde	200 ug/mL
							Endrin ketone	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							gamma-BHC (Lindane)	200 ug/mL
							gamma-Chlordane	200 ug/mL
							Heptachlor	200 ug/mL
							Heptachlor epoxide	200 ug/mL
							Methoxychlor	200 ug/mL
...SGPESTAB #3_00004	09/30/18		Restek, Lot A0106146		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPestAB5_00012	12/27/15	07/27/15	HEXANE, Lot 151838	100 mL	Pest ISTD Stk_00001	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTABST_00015	500 uL	4,4'-DDD	0.1 ug/mL
							4,4'-DDE	0.1 ug/mL
							4,4'-DDT	0.1 ug/mL
							Aldrin	0.1 ug/mL
							alpha-BHC	0.1 ug/mL
							alpha-Chlordane	0.1 ug/mL
							beta-BHC	0.1 ug/mL
							delta-BHC	0.1 ug/mL
							Dieldrin	0.1 ug/mL
							Endosulfan I	0.1 ug/mL
							Endosulfan II	0.1 ug/mL
							Endosulfan sulfate	0.1 ug/mL
							Endrin	0.1 ug/mL
							Endrin aldehyde	0.1 ug/mL
							Endrin ketone	0.1 ug/mL
							gamma-BHC (Lindane)	0.1 ug/mL
							gamma-Chlordane	0.1 ug/mL
							Heptachlor	0.1 ug/mL
							Heptachlor epoxide	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methoxychlor	0.1 ug/mL
							DCB Decachlorobiphenyl	0.1 ug/mL
							Tetrachloro-m-xylene	0.1 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTABST_00015	12/28/15	07/24/15	HEXANE, Lot 151838	10 mL	sgpestabcorp1_00007	1 mL	4,4'-DDD	20 ug/mL
							4,4'-DDE	20 ug/mL
							4,4'-DDT	20 ug/mL
							Aldrin	20 ug/mL
							alpha-BHC	20 ug/mL
							alpha-Chlordane	20 ug/mL
							beta-BHC	20 ug/mL
							delta-BHC	20 ug/mL
							Dieldrin	20 ug/mL
							Endosulfan I	20 ug/mL
							Endosulfan II	20 ug/mL
							Endosulfan sulfate	20 ug/mL
							Endrin	20 ug/mL
							Endrin aldehyde	20 ug/mL
							Endrin ketone	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							gamma-Chlordane	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL
							Methoxychlor	20 ug/mL
					SGPESTSURR_00008	1 mL	DCB Decachlorobiphenyl	20 ug/mL
							Tetrachloro-m-xylene	20 ug/mL
..sgpestabcorp1_00007	12/29/15	07/24/15	HEXANE, Lot 151838	10 mL	SGPESTAB #3_00004	1 mL	4,4'-DDD	200 ug/mL
							4,4'-DDE	200 ug/mL
							4,4'-DDT	200 ug/mL
							Aldrin	200 ug/mL
							alpha-BHC	200 ug/mL
							alpha-Chlordane	200 ug/mL
							beta-BHC	200 ug/mL
							delta-BHC	200 ug/mL
							Dieldrin	200 ug/mL
							Endosulfan I	200 ug/mL
							Endosulfan II	200 ug/mL
							Endosulfan sulfate	200 ug/mL
							Endrin	200 ug/mL
							Endrin aldehyde	200 ug/mL
							Endrin ketone	200 ug/mL
							gamma-BHC (Lindane)	200 ug/mL
							gamma-Chlordane	200 ug/mL
							Heptachlor	200 ug/mL
							Heptachlor epoxide	200 ug/mL
							Methoxychlor	200 ug/mL
...SGPESTAB #3_00004	09/30/18	Restek, Lot A0106146			(Purchased Reagent)		4,4'-DDD	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPestAB6_00013	12/27/15	07/27/15	HEXANE, Lot 151838	100 mL	Pest ISTD Stk_00001	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTABST_00015	1 mL	4,4'-DDD	0.2 ug/mL
							4,4'-DDE	0.2 ug/mL
							4,4'-DDT	0.2 ug/mL
							Aldrin	0.2 ug/mL
							alpha-BHC	0.2 ug/mL
							alpha-Chlordane	0.2 ug/mL
							beta-BHC	0.2 ug/mL
							delta-BHC	0.2 ug/mL
							Dieldrin	0.2 ug/mL
							Endosulfan I	0.2 ug/mL
							Endosulfan II	0.2 ug/mL
							Endosulfan sulfate	0.2 ug/mL
							Endrin	0.2 ug/mL
							Endrin aldehyde	0.2 ug/mL
							Endrin ketone	0.2 ug/mL
							gamma-BHC (Lindane)	0.2 ug/mL
							gamma-Chlordane	0.2 ug/mL
							Heptachlor	0.2 ug/mL
							Heptachlor epoxide	0.2 ug/mL
							Methoxychlor	0.2 ug/mL
							DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22		AccuStandard Inc, Lot 212101344		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTABST_00015	12/28/15	07/24/15	HEXANE, Lot 151838	10 mL	sgpestabcorp1_00007	1 mL	4,4'-DDD	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,4'-DDE	20 ug/mL
							4,4'-DDT	20 ug/mL
							Aldrin	20 ug/mL
							alpha-BHC	20 ug/mL
							alpha-Chlordane	20 ug/mL
							beta-BHC	20 ug/mL
							delta-BHC	20 ug/mL
							Dieldrin	20 ug/mL
							Endosulfan I	20 ug/mL
							Endosulfan II	20 ug/mL
							Endosulfan sulfate	20 ug/mL
							Endrin	20 ug/mL
							Endrin aldehyde	20 ug/mL
							Endrin ketone	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							gamma-Chlordane	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL
							Methoxychlor	20 ug/mL
					SGPESTSURR_00008	1 mL	DCB Decachlorobiphenyl	20 ug/mL
							Tetrachloro-m-xylene	20 ug/mL
..sgpestabcorp1_00007	12/29/15	07/24/15	HEXANE, Lot 151838	10 mL	SGPESTAB #3_00004	1 mL	4,4'-DDD	200 ug/mL
							4,4'-DDE	200 ug/mL
							4,4'-DDT	200 ug/mL
							Aldrin	200 ug/mL
							alpha-BHC	200 ug/mL
							alpha-Chlordane	200 ug/mL
							beta-BHC	200 ug/mL
							delta-BHC	200 ug/mL
							Dieldrin	200 ug/mL
							Endosulfan I	200 ug/mL
							Endosulfan II	200 ug/mL
							Endosulfan sulfate	200 ug/mL
							Endrin	200 ug/mL
							Endrin aldehyde	200 ug/mL
							Endrin ketone	200 ug/mL
							gamma-BHC (Lindane)	200 ug/mL
							gamma-Chlordane	200 ug/mL
							Heptachlor	200 ug/mL
							Heptachlor epoxide	200 ug/mL
							Methoxychlor	200 ug/mL
...SGPESTAB #3_00004	09/30/18		Restek, Lot A0106146		(Purchased Reagent)		4,4'-DDD	2000 ug/mL
							4,4'-DDE	2000 ug/mL
							4,4'-DDT	2000 ug/mL
							Aldrin	2000 ug/mL
							alpha-BHC	2000 ug/mL
							alpha-Chlordane	2000 ug/mL
							beta-BHC	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							delta-BHC	2000 ug/mL
							Dieldrin	2000 ug/mL
							Endosulfan I	2000 ug/mL
							Endosulfan II	2000 ug/mL
							Endosulfan sulfate	2000 ug/mL
							Endrin	2000 ug/mL
							Endrin aldehyde	2000 ug/mL
							Endrin ketone	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							gamma-Chlordane	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
..SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPESTABCV IS_00006	02/02/16	08/03/15	HEXANE, Lot 151838	100 mL	Pest ISTD Stk_00001	50 uL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
..PEST ISTD_00001	10/26/22		AccuStandard Inc, Lot 212101344		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SGPESTABCV IS_00006	02/02/16	08/03/15	HEXANE, Lot 151838	100 mL	SGPESTABIC_00011	125 uL	Endrin	0.025 ug/mL
							gamma-BHC (Lindane)	0.025 ug/mL
							Heptachlor	0.025 ug/mL
							Heptachlor epoxide	0.025 ug/mL
							Methoxychlor	0.025 ug/mL
					SGPESTSURR_00008	12.5 uL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SGPESTABIC_00011	02/03/16	08/03/15	HEXANE, Lot 151838	25 mL	SGPESTAB #3_00005	0.25 mL	Endrin	20 ug/mL
							gamma-BHC (Lindane)	20 ug/mL
							Heptachlor	20 ug/mL
							Heptachlor epoxide	20 ug/mL
							Methoxychlor	20 ug/mL
..SGPESTAB #3_00005	09/30/17		Restek, Lot A097850		(Purchased Reagent)		Endrin	2000 ug/mL
							gamma-BHC (Lindane)	2000 ug/mL
							Heptachlor	2000 ug/mL
							Heptachlor epoxide	2000 ug/mL
							Methoxychlor	2000 ug/mL
.SGPESTSURR_00008	05/31/21		Restek, Lot A0108779		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SGPESTPEM_00015	12/12/15	06/12/15	HEXANE, Lot 96800	100 mL	SGPESTPEMS_00011	1 mL	4,4'-DDT	0.1 ug/mL
							alpha-BHC	0.01 ug/mL
							beta-BHC	0.01 ug/mL
							Endrin	0.05 ug/mL
							gamma-BHC (Lindane)	0.01 ug/mL
							Methoxychlor	0.25 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SGPESTPEMS_00011	12/31/15		Restek, Lot A085642		(Purchased Reagent)		4,4'-DDT	10 ug/mL
							alpha-BHC	1 ug/mL
							beta-BHC	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Endrin	5 ug/mL
							gamma-BHC (Lindane)	1 ug/mL
							Methoxychlor	25 ug/mL
							Tetrachloro-m-xylene	1 ug/mL
SGPESTPEM_00016	12/30/15	10/23/15	HEXANE, Lot 154006	100 mL	SGPESTPEMS_00011	1 mL	4,4'-DDT	0.1 ug/mL
							alpha-BHC	0.01 ug/mL
							beta-BHC	0.01 ug/mL
							Endrin	0.05 ug/mL
							gamma-BHC (Lindane)	0.01 ug/mL
							Methoxychlor	0.25 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SGPESTPEMS_00011	12/31/15		Restek, Lot A085642		(Purchased Reagent)		4,4'-DDT	10 ug/mL
							alpha-BHC	1 ug/mL
							beta-BHC	1 ug/mL
							Endrin	5 ug/mL
							gamma-BHC (Lindane)	1 ug/mL
							Methoxychlor	25 ug/mL
							Tetrachloro-m-xylene	1 ug/mL
SGPESTTCST 1_00005	05/12/16	12/13/15	HEXANE, Lot 116331	25 mL	Pest ISTD_00004	1.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTTCST_00021	0.5 mL	Chlordane (technical) Peak 1	0.02 ug/mL
							Chlordane (technical) Peak 2	0.02 ug/mL
							Chlordane (technical) Peak 3	0.02 ug/mL
							Chlordane (technical) Peak 4	0.02 ug/mL
.Pest ISTD_00004	05/12/16	11/13/15	HEXANE, Lot 101243	100 mL	Pest ISTD Stk_00002	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00002	05/13/16	11/13/15	HEXANE, Lot 101243	10 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTTCST_00021	06/10/16	12/10/15	HEXANE, Lot 116331	100 mL	SGPESTTCorp_00005	0.1 mL	Chlordane (technical) Peak 1	1 ug/mL
							Chlordane (technical) Peak 2	1 ug/mL
							Chlordane (technical) Peak 3	1 ug/mL
							Chlordane (technical) Peak 4	1 ug/mL
..SGPESTTCorp_00005	06/10/16	12/10/15	HEXANE, Lot 116331	5 mL	SGPESTTC_00008	1 mL	Chlordane (technical) Peak 1	1000 ug/mL
							Chlordane (technical) Peak 2	1000 ug/mL
							Chlordane (technical) Peak 3	1000 ug/mL
							Chlordane (technical) Peak 4	1000 ug/mL
...SGPESTTC_00008	07/31/19		Restek, Lot A0112959		(Purchased Reagent)		Chlordane (technical) Peak 1	5000 ug/mL
							Chlordane (technical) Peak 2	5000 ug/mL
							Chlordane (technical) Peak 3	5000 ug/mL
							Chlordane (technical) Peak 4	5000 ug/mL
SGPESTTCST 2_00004	05/12/16	12/10/15	HEXANE, Lot 116331	25 mL	Pest ISTD_00004	1.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTTCST_00021	1.25 mL	Chlordane (technical) Peak 1	0.05 ug/mL
							Chlordane (technical) Peak 2	0.05 ug/mL
							Chlordane (technical) Peak 3	0.05 ug/mL
							Chlordane (technical) Peak 4	0.05 ug/mL
.Pest ISTD_00004	05/12/16	11/13/15	HEXANE, Lot 101243	100 mL	Pest ISTD Stk_00002	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00002	05/13/16	11/13/15	HEXANE, Lot 101243	10 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTTCST_00021	06/10/16	12/10/15	HEXANE, Lot 116331	100 mL	SGPESTTCorp_00005	0.1 mL	Chlordane (technical) Peak 1	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlordane (technical) Peak 2	1 ug/mL
							Chlordane (technical) Peak 3	1 ug/mL
							Chlordane (technical) Peak 4	1 ug/mL
..SGPESTTCorp_00005	06/10/16	12/10/15	HEXANE, Lot 116331	5 mL	SGPESTTC_00008	1 mL	Chlordane (technical) Peak 1	1000 ug/mL
							Chlordane (technical) Peak 2	1000 ug/mL
							Chlordane (technical) Peak 3	1000 ug/mL
							Chlordane (technical) Peak 4	1000 ug/mL
...SGPESTTC_00008	07/31/19		Restek, Lot A0112959		(Purchased Reagent)		Chlordane (technical) Peak 1	5000 ug/mL
							Chlordane (technical) Peak 2	5000 ug/mL
							Chlordane (technical) Peak 3	5000 ug/mL
							Chlordane (technical) Peak 4	5000 ug/mL
SGPESTTCST 3_00006	05/12/16	12/10/15	HEXANE, Lot 116331	50 mL	Pest ISTD_00004	2.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTTCST_00021	5 mL	Chlordane (technical) Peak 1	0.1 ug/mL
							Chlordane (technical) Peak 2	0.1 ug/mL
							Chlordane (technical) Peak 3	0.1 ug/mL
							Chlordane (technical) Peak 4	0.1 ug/mL
.Pest ISTD_00004	05/12/16	11/13/15	HEXANE, Lot 101243	100 mL	Pest ISTD Stk_00002	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00002	05/13/16	11/13/15	HEXANE, Lot 101243	10 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTTCST_00021	06/10/16	12/10/15	HEXANE, Lot 116331	100 mL	SGPESTTCorp_00005	0.1 mL	Chlordane (technical) Peak 1	1 ug/mL
							Chlordane (technical) Peak 2	1 ug/mL
							Chlordane (technical) Peak 3	1 ug/mL
							Chlordane (technical) Peak 4	1 ug/mL
..SGPESTTCorp_00005	06/10/16	12/10/15	HEXANE, Lot 116331	5 mL	SGPESTTC_00008	1 mL	Chlordane (technical) Peak 1	1000 ug/mL
							Chlordane (technical) Peak 2	1000 ug/mL
							Chlordane (technical) Peak 3	1000 ug/mL
							Chlordane (technical) Peak 4	1000 ug/mL
...SGPESTTC_00008	07/31/19		Restek, Lot A0112959		(Purchased Reagent)		Chlordane (technical) Peak 1	5000 ug/mL
							Chlordane (technical) Peak 2	5000 ug/mL
							Chlordane (technical) Peak 3	5000 ug/mL
							Chlordane (technical) Peak 4	5000 ug/mL
SGPESTTCST 3_00006	05/12/16	12/10/15	HEXANE, Lot 116331	50 mL	SGPESTTCST_00021	5 mL	Chlordane (technical)	0.1 ug/mL
.SGPESTTCST_00021	06/10/16	12/10/15	HEXANE, Lot 116331	100 mL	SGPESTTCorp_00005	0.1 mL	Chlordane (technical)	1 ug/mL
..SGPESTTCorp_00005	06/10/16	12/10/15	HEXANE, Lot 116331	5 mL	SGPESTTC_00008	1 mL	Chlordane (technical)	1000 ug/mL
...SGPESTTC_00008	07/31/19		Restek, Lot A0112959		(Purchased Reagent)		Chlordane (technical)	5000 ug/mL
SGPESTTCST 4_00004	05/12/16	12/10/15	HEXANE, Lot 116331	25 mL	Pest ISTD_00004	1.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTTCST_00021	5 mL	Chlordane (technical) Peak 1	0.2 ug/mL
							Chlordane (technical) Peak 2	0.2 ug/mL
							Chlordane (technical) Peak 3	0.2 ug/mL
							Chlordane (technical) Peak 4	0.2 ug/mL
.Pest ISTD_00004	05/12/16	11/13/15	HEXANE, Lot 101243	100 mL	Pest ISTD Stk_00002	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00002	05/13/16	11/13/15	HEXANE, Lot 101243	10 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTTCST_00021	06/10/16	12/10/15	HEXANE, Lot 116331	100 mL	SGPESTTCorp_00005	0.1 mL	Chlordane (technical) Peak 1	1 ug/mL
							Chlordane (technical) Peak 2	1 ug/mL
							Chlordane (technical) Peak 3	1 ug/mL
							Chlordane (technical) Peak 4	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SGPESTTCorp_00005	06/10/16	12/10/15	HEXANE, Lot 116331	5 mL	SGPESTTC_00008	1 mL	Chlordane (technical) Peak 1	1000 ug/mL
							Chlordane (technical) Peak 2	1000 ug/mL
							Chlordane (technical) Peak 3	1000 ug/mL
							Chlordane (technical) Peak 4	1000 ug/mL
...SGPESTTC_00008	07/31/19		Restek, Lot A0112959		(Purchased Reagent)		Chlordane (technical) Peak 1	5000 ug/mL
							Chlordane (technical) Peak 2	5000 ug/mL
							Chlordane (technical) Peak 3	5000 ug/mL
							Chlordane (technical) Peak 4	5000 ug/mL
SGPESTTCST 5_00004	05/12/16	12/10/15	HEXANE, Lot 116331	10 mL	Pest ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPESTTCST_00021	5 mL	Chlordane (technical) Peak 1	0.5 ug/mL
							Chlordane (technical) Peak 2	0.5 ug/mL
							Chlordane (technical) Peak 3	0.5 ug/mL
							Chlordane (technical) Peak 4	0.5 ug/mL
.Pest ISTD_00004	05/12/16	11/13/15	HEXANE, Lot 101243	100 mL	Pest ISTD Stk_00002	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00002	05/13/16	11/13/15	HEXANE, Lot 101243	10 mL	ISTD_00002	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...ISTD_00002	04/30/18		Restek, Lot A0110081		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPESTTCST_00021	06/10/16	12/10/15	HEXANE, Lot 116331	100 mL	SGPESTTCorp_00005	0.1 mL	Chlordane (technical) Peak 1	1 ug/mL
							Chlordane (technical) Peak 2	1 ug/mL
							Chlordane (technical) Peak 3	1 ug/mL
							Chlordane (technical) Peak 4	1 ug/mL
..SGPESTTCorp_00005	06/10/16	12/10/15	HEXANE, Lot 116331	5 mL	SGPESTTC_00008	1 mL	Chlordane (technical) Peak 1	1000 ug/mL
							Chlordane (technical) Peak 2	1000 ug/mL
							Chlordane (technical) Peak 3	1000 ug/mL
							Chlordane (technical) Peak 4	1000 ug/mL
...SGPESTTC_00008	07/31/19		Restek, Lot A0112959		(Purchased Reagent)		Chlordane (technical) Peak 1	5000 ug/mL
							Chlordane (technical) Peak 2	5000 ug/mL
							Chlordane (technical) Peak 3	5000 ug/mL
							Chlordane (technical) Peak 4	5000 ug/mL
SM4M1C L6 W_00004	01/31/16	09/16/15	MECL2, Lot 0000112788	2 mL	SMIS80PPMW_00013	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
.SMIS80PPMW_00013	07/10/16	07/10/15	MECL2, Lot 0000103549	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMIS80PPMW_00013	07/10/16	07/10/15	MECL2, Lot 0000103549	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
.SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 L1 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Fluoranthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L2 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							bis (2-chloroisopropyl) ether	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL
							Pyridine	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							bis (2-chloroisopropyl) ether	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL
							N-Nitrosodi-n-propylamine	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							bis (2-chloroisopropyl) ether	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL
							Fluoranthene	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	100 uL	1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							bis (2-chloroisopropyl) ether	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							bis (2-chloroisopropyl) ether	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16	Restek, Lot A0107943			(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							bis (2-chloroisopropyl) ether	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL
							Phenol	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							bis (2-chloroisopropyl) ether	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00006	04/20/16	04/21/15	MECL2, Lot 0000103549	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00006	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL
							1-Methylnaphthalene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							bis (2-chloroisopropyl) ether	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL
							Diethyl phthalate	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00006	05/31/16	04/20/15	MECL2, Lot 0000103549	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00012	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SMIS80PPMW_00012	04/20/16	04/20/15	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
SMLIST1 SS W_00005	04/20/16	04/21/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00005	200 uL	1,1'-Biphenyl	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							bis (2-chloroisopropyl) ether	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00005	06/30/16	04/21/15	MECL2, Lot 0000103549	10 mL	SMLIST1 SS S1_00004	1 mL	1,1'-Biphenyl	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							bis (2-chloroisopropyl) ether	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 SS S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					SMLIST1SS S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							bis (2-chloroisopropyl) ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 SS S9_00001	07/31/16		Restek, Lot A0108170		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..SMLIST1SS S11_00001	06/30/16		Restek, Lot A0108042		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1SS SUR_00002	09/30/18		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
Tox UltraLvl1_00004	02/07/16	09/18/15	HEXANE, Lot 116331	25 mL	Pest ISTD_00003	1.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					Tox Ultra_00011	0.5 mL	Toxaphene Peak 1	0.2 ug/mL
							Toxaphene Peak 2	0.2 ug/mL
							Toxaphene Peak 3	0.2 ug/mL
							Toxaphene Peak 4	0.2 ug/mL
							Toxaphene Peak 5	0.2 ug/mL
.Pest ISTD_00003	02/07/16	08/07/15	HEXANE, Lot 116031	100 mL	Pest ISTD Stk_00001	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.Tox Ultra_00011	03/05/16	09/05/15	HEXANE, Lot 000017549	50 mL	Tox Ultra_00006	0.5 mL	Toxaphene Peak 1	10 ug/mL
							Toxaphene Peak 2	10 ug/mL
							Toxaphene Peak 3	10 ug/mL
							Toxaphene Peak 4	10 ug/mL
							Toxaphene Peak 5	10 ug/mL
..Tox Ultra_00006	02/28/17	Ultra Scientific, Lot CK-0004			(Purchased Reagent)		Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
Tox UltraLvl2_00002	02/07/16	09/18/15	HEXANE, Lot 116331	25 mL	Pest ISTD_00003	1.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					Tox Ultra_00011	1.25 mL	Toxaphene Peak 1	0.5 ug/mL
							Toxaphene Peak 2	0.5 ug/mL
							Toxaphene Peak 3	0.5 ug/mL
							Toxaphene Peak 4	0.5 ug/mL
							Toxaphene Peak 5	0.5 ug/mL
.Pest ISTD_00003	02/07/16	08/07/15	HEXANE, Lot 116031	100 mL	Pest ISTD Stk_00001	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.Tox Ultra_00011	03/05/16	09/05/15	HEXANE, Lot 000017549	50 mL	Tox Ultra_00006	0.5 mL	Toxaphene Peak 1	10 ug/mL
							Toxaphene Peak 2	10 ug/mL
							Toxaphene Peak 3	10 ug/mL
							Toxaphene Peak 4	10 ug/mL
							Toxaphene Peak 5	10 ug/mL
..Tox Ultra_00006	02/28/17	Ultra Scientific, Lot CK-0004			(Purchased Reagent)		Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
Tox UltraLvl3_00003	02/07/16	11/21/15	HEXANE, Lot 116331	50 mL	Pest ISTD_00003	2.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					Tox Ultra_00011	5 mL	Toxaphene Peak 1	1 ug/mL
							Toxaphene Peak 2	1 ug/mL
							Toxaphene Peak 3	1 ug/mL
							Toxaphene Peak 4	1 ug/mL
							Toxaphene Peak 5	1 ug/mL
.Pest ISTD_00003	02/07/16	08/07/15	HEXANE, Lot 116031	100 mL	Pest ISTD Stk_00001	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.Tox Ultra_00011	03/05/16	09/05/15	HEXANE, Lot 000017549	50 mL	Tox Ultra_00006	0.5 mL	Toxaphene Peak 1	10 ug/mL
							Toxaphene Peak 2	10 ug/mL
							Toxaphene Peak 3	10 ug/mL
							Toxaphene Peak 4	10 ug/mL
							Toxaphene Peak 5	10 ug/mL
..Tox Ultra_00006	02/28/17	Ultra Scientific, Lot CK-0004			(Purchased Reagent)		Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
Tox UltraLvl3_00003	02/07/16	11/21/15	HEXANE, Lot 116331	50 mL	Tox Ultra_00011	5 mL	Toxaphene	1 ug/mL
.Tox Ultra_00011	03/05/16	09/05/15	HEXANE, Lot 000017549	50 mL	Tox Ultra_00006	0.5 mL	Toxaphene	10 ug/mL
..Tox Ultra_00006	02/28/17	Ultra Scientific, Lot CK-0004			(Purchased Reagent)		Toxaphene	1000 ug/mL
Tox UltraLvl4_00002	02/07/16	09/18/15	HEXANE, Lot 116331	25 mL	Pest ISTD_00003	1.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					Tox Ultra_00011	5 mL	Toxaphene Peak 1	2 ug/mL
							Toxaphene Peak 2	2 ug/mL
							Toxaphene Peak 3	2 ug/mL
							Toxaphene Peak 4	2 ug/mL
							Toxaphene Peak 5	2 ug/mL
.Pest ISTD_00003	02/07/16	08/07/15	HEXANE, Lot 116031	100 mL	Pest ISTD Stk_00001	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.Tox Ultra_00011	03/05/16	09/05/15	HEXANE, Lot 000017549	50 mL	Tox Ultra_00006	0.5 mL	Toxaphene Peak 1	10 ug/mL
							Toxaphene Peak 2	10 ug/mL
							Toxaphene Peak 3	10 ug/mL
							Toxaphene Peak 4	10 ug/mL
							Toxaphene Peak 5	10 ug/mL
..Tox Ultra_00006	02/28/17	Ultra Scientific, Lot CK-0004			(Purchased Reagent)		Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
Tox UltraLvl5_00002	02/07/16	09/18/15	HEXANE, Lot 116331	10 mL	Pest ISTD_00003	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					Tox Ultra_00011	5 mL	Toxaphene Peak 1	5 ug/mL
							Toxaphene Peak 2	5 ug/mL
							Toxaphene Peak 3	5 ug/mL
							Toxaphene Peak 4	5 ug/mL
							Toxaphene Peak 5	5 ug/mL
.Pest ISTD_00003	02/07/16	08/07/15	HEXANE, Lot 116031	100 mL	Pest ISTD Stk_00001	1 mL	1-Bromo-2-nitrobenzene	1 ug/mL
..Pest ISTD Stk_00001	03/12/16	03/13/15	HEXANE, Lot 86559	10 mL	PEST ISTD_00001	1 mL	1-Bromo-2-nitrobenzene	100 ug/mL
...PEST ISTD_00001	10/26/22	AccuStandard Inc, Lot 212101344			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.Tox Ultra_00011	03/05/16	09/05/15	HEXANE, Lot 000017549	50 mL	Tox Ultra_00006	0.5 mL	Toxaphene Peak 1	10 ug/mL
							Toxaphene Peak 2	10 ug/mL
							Toxaphene Peak 3	10 ug/mL
							Toxaphene Peak 4	10 ug/mL
							Toxaphene Peak 5	10 ug/mL
..Tox Ultra_00006	02/28/17	Ultra Scientific, Lot CK-0004			(Purchased Reagent)		Toxaphene Peak 1	1000 ug/mL
							Toxaphene Peak 2	1000 ug/mL
							Toxaphene Peak 3	1000 ug/mL
							Toxaphene Peak 4	1000 ug/mL
							Toxaphene Peak 5	1000 ug/mL
VGGASCALNEW_00014	09/22/15	06/23/15	MEOH, Lot 62345	25 mL	VGGASSTOCKNEW_00003	1 mL	C6-C12	100 ug/mL
							Gasoline Range Organics [C6 - C10]	100 ug/mL
.VGGASSTOCKNEW_00003	01/31/20	RESTEK, Lot A092645			(Purchased Reagent)		C6-C12	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Gasoline Range Organics [C6 - C10]	2500 ug/mL
VGGASCALNEW_00016	03/08/16	12/08/15	MEOH, Lot 62345	25 mL	VGGASSTOCKNEW_00003	1 mL	Gasoline Range Organics [C6 - C10]	100 ug/mL
.VGGASSTOCKNEW_00003	01/31/20	RESTEK, Lot A092645			(Purchased Reagent)		Gasoline Range Organics [C6 - C10]	2500 ug/mL
VGGASCHK_00068	10/27/15	07/27/15	MEOH, Lot 49909	50 mL	VGASCHK_00002	1 mL	Gasoline Range Organics [C6 - C10]	100 ug/mL
.VGASCHK_00002	10/30/19	AccuStandard, Lot B5040009-01			(Purchased Reagent)		Gasoline Range Organics [C6 - C10]	5 mg/mL
VGGASCHK_00070	02/04/16	11/04/15	MEOH, Lot 49909	50 mL	VGASCHK_00002	1 mL	Gasoline Range Organics [C6 - C10]	100 ug/mL
.VGASCHK_00002	10/30/19	AccuStandard, Lot B5040009-01			(Purchased Reagent)		Gasoline Range Organics [C6 - C10]	5 mg/mL
VGGASURROGATE_00034	01/09/16	10/09/15	MEOH, Lot 49909	50 mL	VGSURRSTKGAS_00019	1.25 mL	Trifluorotoluene (Surr)	50 ug/mL
.VGSURRSTKGAS_00019	08/31/16	ULTRA SCIENTIFIC, Lot CE-1903A			(Purchased Reagent)		Trifluorotoluene (Surr)	2000 ug/mL
vm100is_stk_00025	12/19/15	06/19/15	MEOH, Lot 85233	50 mL	vm30241_00003	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00003	04/30/20	restek, Lot A0110589			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100is_stk_00026	04/14/16	10/14/15	MEOH, Lot 99494	50 mL	vm30241_00003	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00003	04/30/20	restek, Lot A0110589			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00021	03/22/16	09/21/15	MEOH, Lot 99494	100 mL	VM567650_00023	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00023	06/30/19	Restek, Lot A0104073			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VM250-IS_00031	04/21/16	11/21/15	MEOH, Lot +171940000118655jm	100 mL	vmcus8126_00008	1 mL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
.vmcus8126_00008	09/30/16	Ultra Scientific, Lot CL-3192			(Purchased Reagent)		1,4-Dichlorobenzene-d4	25000 ug/mL
							Chlorobenzene-d5	25000 ug/mL
							Fluorobenzene	25000 ug/mL
VM250SS_00033	02/09/16	11/09/15	MEOH, Lot +171940000118655JM	50 mL	VM567650_00023	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.VM567650_00023	06/30/19		Restek, Lot A0104073		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00220	11/23/15	11/16/15	MEOH, Lot na	2 mL	vm50ss_stk_00067	2 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00067	04/05/16	10/05/15	MEOH, Lot 0000099494	200 mL	VM567650_00023	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00023	06/30/19		Restek, Lot A0104073		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00222	12/08/15	12/01/15	MEOH, Lot na	2 mL	vm50ss_stk_00067	2 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00067	04/05/16	10/05/15	MEOH, Lot 0000099494	200 mL	VM567650_00023	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00023	06/30/19		Restek, Lot A0104073		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VMAROLISTDW_00125	11/23/15	11/16/15	MEOH, Lot na	3 mL	VMACROLSTD_00031	3 mL	Acrolein	250 ug/mL
.VMACROLSTD_00031	11/30/15	11/01/15	MEOH, Lot 0000118655	20 mL	VM568720_00009	250 uL	Acrolein	250 ug/mL
..VM568720_00009	11/30/15		restek, Lot A0112264		(Purchased Reagent)		Acrolein	20000 ug/mL
VMAROLISTDW_00127	12/08/15	12/01/15	MEOH, Lot na	3 mL	VMACROLSTD_00032	3 mL	Acrolein	250 ug/mL
.VMACROLSTD_00032	02/29/16	11/30/15	MEOH, Lot +171940000118655jm	20 mL	VM568720_00010	250 uL	Acrolein	250 ug/mL
..VM568720_00010	03/31/16		restek, Lot A0115119		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASA9W_00081	12/24/15	12/17/15	MEOH, Lot NA	2 mL	VMFASA9_00006	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00006	02/29/16	11/30/15	MEOH, Lot +171940000118655jm	100 mL	vm569725S_00003	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM569728S_00001	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL

REAGENT TRACEABILITY SUMMARY

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..vm569725S_00003	02/29/16		restek, Lot A0113467		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM569728S_00001	04/30/17		restek, Lot A0110751		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMFASGW_00125	11/27/15	11/20/15	MEOH, Lot NA	2 mL	VMFASG_00036	2 mL	Vinyl chloride	50 ug/mL
.VMFASG_00036	11/30/15	11/16/15	MEOH, Lot 0000118655	50 mL	VM567645S_00016	1.25 mL	Vinyl chloride	50 ug/mL
..VM567645S_00016	11/30/15		Restek, Lot A099261		(Purchased Reagent)		Vinyl chloride	2000 ug/mL
VMFASGW_00128	12/11/15	12/04/15	MEOH, Lot NA	2 mL	VMFASG_00037	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00037	12/30/15	11/30/15	MEOH, Lot +171940000118655jm	50 mL	vm569722S_00001	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00001	08/31/18		Restek, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00129	12/18/15	12/11/15	MEOH, Lot NA	2 mL	VMFASG_00037	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00037	12/30/15	11/30/15	MEOH, Lot +171940000118655jm	50 mL	vm569722S_00001	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00001	08/31/18		Restek, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00127	11/27/15	11/20/15	MEOH, Lot n/a	2 mL	VMRFASP_00024	2 mL	1,1-Dichloroethene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
.VMRFASP_00024	01/31/16	11/01/15	MEOH, Lot 0000118655	100 mL	VM567641S_00007	2.5 mL	1,1-Dichloroethene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							Benzene	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM567642S_00005	1 mL	2-Butanone (MEK)	100 ug/mL
..VM567641S_00007	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1-Dichloroethene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							Benzene	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Trichloroethene	2000 ug/mL
..VM567642S_00005	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
VMFASPW_00129	12/10/15	12/03/15	MEOH, Lot n/a	2 mL	VMRFASP_00024	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00024	01/31/16	11/01/15	MEOH, Lot 0000118655	100 mL	VM567641S_00007	2.5 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylenes, Total	100 ug/mL
					VM567642S_00005	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00001	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00003	1 mL	Vinyl acetate	50 ug/mL
..VM567641S_00007	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642S_00005	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM569723S_00001	01/31/18		Restek, Lot A0108188		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00003	01/31/16		Restek, Lot A0112364		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMFASPW_00130	12/18/15	12/11/15	MEOH, Lot n/a	2 mL	VMRFASP_00024	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00024	01/31/16	11/01/15	MEOH, Lot 0000118655	100 mL	VM567641S_00007	2.5 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM567642S_00005	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00001	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00003	1 mL	Vinyl acetate	50 ug/mL
..VM567641S_00007	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642S_00005	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM569723S_00001	01/31/18		Restek, Lot A0108188		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00003	01/31/16		Restek, Lot A0112364		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRA9W_00134	12/08/15	12/01/15	MEOH, Lot NA	1 mL	VMRA9_00014	1 mL	Cyclohexanone	500 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
							n-Butyl acetate	50 ug/mL
							2-Methylnaphthalene	100 ug/mL
.VMRA9_00014	12/31/15	12/01/15	MEOH, Lot 00000118655	50 mL	VM567648_00014	1.25 mL	Cyclohexanone	500 ug/mL
					VM568723_00001	1.25 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm569725_00004	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitropropane	100 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
							n-Butyl acetate	50 ug/mL
					vm569726_00002	2 mL	2-Methylnaphthalene	100 ug/mL
..VM567648_00014	02/29/16		Restek, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
..VM568723_00001	12/31/15		restek, Lot A099930		(Purchased Reagent)		Acetonitrile	20000 ug/mL
							Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
..vm569725_00004	03/31/16		restek, Lot A0113771		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butanol	62500 ug/mL
							n-Butyl acetate	2500 ug/mL
..vm569726_00002	01/31/17		Restek, Lot A0108210		(Purchased Reagent)		2-Methylnaphthalene	2500 ug/mL
VMRA9W_00136	12/24/15	12/17/15	MEOH, Lot NA	1 mL	VMRA9_00014	1 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
.VMRA9_00014	12/31/15	12/01/15	MEOH, Lot 00000118655	50 mL	VM568723_00001	1.25 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm569725_00004	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
..VM568723_00001	12/31/15		restek, Lot A099930		(Purchased Reagent)		Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
..vm569725_00004	03/31/16		restek, Lot A0113771		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
VMRGAS_00126	11/20/15	11/13/15	MEOH, Lot 0000118655	10 mL	vm569722_00003	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00003	04/30/18		Restek, Lot A0110070		(Purchased Reagent)		Bromomethane	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00128	12/07/15	11/30/15	MEOH, Lot 0000118655	10 mL	vm569722_00003	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00003	04/30/18		Restek, Lot A0110070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00130	12/23/15	12/16/15	MEOH, Lot 0000118655	10 mL	vm569722_00003	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00003	04/30/18		Restek, Lot A0110070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRPRIMW_00157	11/23/15	11/16/15	MEOH, Lot NA	1 mL	VMRPRIM_00014	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00014	01/31/16	11/01/15	MEOH, Lot 0000118655	50 mL	VM567641_00013	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM567642_00015	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00003	0.5 mL	Vinyl acetate	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM567641_00013	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
..VM567642_00015	02/29/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16		restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM569724_00003	01/31/16		Restek, Lot A0112975		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00159	12/05/15	11/28/15	MEOH, Lot NA	1 mL	VMRPRIM_00014	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00014	01/31/16	11/01/15	MEOH, Lot 0000118655	50 mL	VM567641_00013	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM567642_00015	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00003	0.5 mL	Vinyl acetate	50 ug/mL
..VM567641_00013	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
..VM567642_00015	02/29/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16		restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM569724_00003	01/31/16		Restek, Lot A0112975		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00161	12/21/15	12/14/15	MEOH, Lot NA	1 mL	VMRPRIM_00014	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00014	01/31/16	11/01/15	MEOH, Lot 0000118655	50 mL	VM567641_00013	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					VM567642_00015	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00003	0.5 mL	Vinyl acetate	50 ug/mL
..VM567641_00013	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642_00015	02/29/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16		restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM569724_00003	01/31/16		Restek, Lot A0112975		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
op_cell thim_00001	11/18/16	Whatman, Lot 965665502			(Purchased Reagent)		Stock Chemical	100 %
OP_HEM_spike_00003	05/12/16	11/12/15	ACETONE, Lot 0000083802	1000 mL	OP_Acetone_cy_00012	990 mL	Acetone	0 ug/mL
					OP_Hexadecane_00002	5 g	HEM	10000 ug/mL
							Hexadecane	0 ug/mL
							SGT-HEM	5000 ug/mL
					OP_Stearic A__00001	5 g	HEM	10000 ug/mL
							SGT-HEM	5000 ug/mL
							Stearic Acid	0 ug/mL
.OP_Acetone_cy_00012	02/16/20	J.T. Baker, Lot 0000110179			(Purchased Reagent)		Acetone	0 ug/mL
.OP_Hexadecane_00002	01/31/19	EMD, Lot 51126121			(Purchased Reagent)		HEM	1000000 ug/mL
							Hexadecane	0 ug/mL
							SGT-HEM	500000 ug/mL
.OP_Stearic A__00001	04/25/17	Fisher, Lot 111176			(Purchased Reagent)		HEM	1000000 ug/mL
							SGT-HEM	500000 ug/mL
							Stearic Acid	0 ug/mL
OP_NaSO4_00046	03/16/20	J.T. Baker, Lot 0000114892			(Purchased Reagent)		Stock Chemical	0 %

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-59150-1
Project/Site: LM MRC Block D Waste Characterization

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	T104704517-15-5
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190
TestAmerica Nashville	A2LA	A2LA		NA: NELAP & A2LA
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	Alaska (UST)	State Program	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas DEQ	State Program	6	88-0737
TestAmerica Nashville	California	State Program	9	2938
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAP	4	E87358
TestAmerica Nashville	Georgia	State Program	4	N/A
TestAmerica Nashville	Illinois	NELAP	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAP	7	E-10229
TestAmerica Nashville	Kentucky (UST)	State Program	4	19
TestAmerica Nashville	Kentucky (WW)	State Program	4	90038
TestAmerica Nashville	Louisiana	NELAP	6	30613
TestAmerica Nashville	Maine	State Program	1	TN00032
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAP	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana (UST)	State Program	8	NA
TestAmerica Nashville	Nevada	State Program	9	TN00032
TestAmerica Nashville	New Hampshire	NELAP	1	2963
TestAmerica Nashville	New Jersey	NELAP	2	TN965
TestAmerica Nashville	New York	NELAP	2	11342
TestAmerica Nashville	North Carolina (WW/SW)	State Program	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio VAP	State Program	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAP	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAP	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009 (001)
TestAmerica Nashville	Tennessee	State Program	4	2008

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-59150-1
Project/Site: LM MRC Block D Waste Characterization

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville	Texas	NELAP	6	T104704077
TestAmerica Nashville	USDA	Federal		S-48469
TestAmerica Nashville	Utah	NELAP	8	TN00032
TestAmerica Nashville	Virginia	NELAP	3	460152
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia DEP	State Program	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430
TestAmerica Nashville	Wyoming (UST)	A2LA	8	453.07

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
D-SD-WC-1	240-59150-1	87	88	89	82
	LB 240-211257/1-A MB	90	92	94	81
	LCS 240-211382/9	94	81	90	78
D-SD-WC-1 MS	240-59150-1 MS	93	82	95	77
D-SD-WC-1 MSD	240-59150-1 MSD	88	86	93	84

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-128
DCA = 1,2-Dichloroethane-d4 (Surr)	80-121
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	70-124

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1248338.D

Lab ID: LCS 240-211382/9 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethene	1.00	0.921	92	71-133	
1,2-Dichloroethane	1.00	1.00	100	80-120	
2-Butanone (MEK)	2.00	1.62	81	49-120	
Benzene	1.00	1.00	100	80-120	
Carbon tetrachloride	1.00	0.807	81	54-122	
Chlorobenzene	1.00	1.06	106	80-120	
Chloroform	1.00	1.00	100	80-123	
Tetrachloroethene	1.00	1.01	101	79-134	
Trichloroethene	1.00	1.10	110	78-130	
Vinyl chloride	1.00	0.793	79	56-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: U1248355.D

Lab ID: 240-59150-1 MS Client ID: D-SD-WC-1 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethene	1.00	0.0095 U	0.844	84	67-139	
1,2-Dichloroethane	1.00	0.011 U	0.994	99	80-120	
2-Butanone (MEK)	2.00	0.029 U	1.39	70	49-120	
Benzene	1.00	0.0065 U	0.955	96	80-120	
Carbon tetrachloride	1.00	0.0065 U	0.709	71	60-120	
Chlorobenzene	1.00	0.0075 U	0.961	96	80-120	
Chloroform	1.00	0.0080 U	0.965	96	80-124	
Tetrachloroethene	1.00	0.015 U	0.896	90	74-138	
Trichloroethene	1.00	0.0085 U	0.999	100	75-134	
Vinyl chloride	1.00	0.011 U	0.749	75	51-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: U1248356.D

Lab ID: 240-59150-1 MSD Client ID: D-SD-WC-1 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethene	1.00	0.804	80	5	30	67-139	
1,2-Dichloroethane	1.00	0.916	92	8	30	80-120	
2-Butanone (MEK)	2.00	1.40	70	1	30	49-120	
Benzene	1.00	0.904	90	5	30	80-120	
Carbon tetrachloride	1.00	0.707	71	0	30	60-120	
Chlorobenzene	1.00	0.932	93	3	30	80-120	
Chloroform	1.00	0.917	92	5	30	80-124	
Tetrachloroethene	1.00	0.921	92	3	30	74-138	
Trichloroethene	1.00	1.01	101	1	30	75-134	
Vinyl chloride	1.00	0.714	71	5	30	51-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: U1248337.D Lab Sample ID: LB 240-211257/1-A

Matrix: Solid (TCLP) Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 12/17/2015 17:48

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-211382/9	U1248338.D	12/17/2015 18:12
D-SD-WC-1	240-59150-1	U1248352.D	12/17/2015 23:36
D-SD-WC-1 MS	240-59150-1 MS	U1248355.D	12/18/2015 00:46
D-SD-WC-1 MSD	240-59150-1 MSD	U1248356.D	12/18/2015 01:09

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: BFB3103.D BFB Injection Date: 11/20/2015

Instrument ID: A3UX12 BFB Injection Time: 17:24

Analysis Batch No.: 207869

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.4	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.8	(1.0) 1
174	50.0 - 120.00 % of mass 95	79.1	
175	5.0 - 9.0 % of mass 174	5.6	(7.1) 1
176	95.0 - 101.0 % of mass 174	75.2	(95.1) 1
177	5.0 - 9.0 % of mass 176	5.3	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-207869/7	U1247758.D	11/20/2015	18:16
	STD8260 240-207869/8	U1247759.D	11/20/2015	18:38
	STD8260 240-207869/9	U1247760.D	11/20/2015	19:01
	ICIS 240-207869/10	U1247761.D	11/20/2015	19:26
	STD8260 240-207869/11	U1247762.D	11/20/2015	19:51
	STD8260 240-207869/12	U1247763.D	11/20/2015	20:16
	ICV 240-207869/28	U1247779.D	11/21/2015	03:03

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: BFB3123.D BFB Injection Date: 12/17/2015

Instrument ID: A3UX12 BFB Injection Time: 16:12

Analysis Batch No.: 211382

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	46.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.4) 1
176	95.0 - 101.0 % of mass 174	76.2	(95.5) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-211382/3	U1248334.D	12/17/2015	16:41
	CCV 240-211382/4	U1248336.D	12/17/2015	17:26
	LB 240-211257/1-A	U1248337.D	12/17/2015	17:48
	LCS 240-211382/9	U1248338.D	12/17/2015	18:12
D-SD-WC-1	240-59150-1	U1248352.D	12/17/2015	23:36
D-SD-WC-1 MS	240-59150-1 MS	U1248355.D	12/18/2015	00:46
D-SD-WC-1 MSD	240-59150-1 MSD	U1248356.D	12/18/2015	01:09

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: ICIS 240-207869/10 Date Analyzed: 11/20/2015 19:26

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1247761.D Heated Purge: (Y/N) N

Calibration ID: 31692

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		750762	5.40	580989	8.22	243453	10.61
UPPER LIMIT		1501524	5.90	1161978	8.72	486906	11.11
LOWER LIMIT		375381	4.90	290495	7.72	121727	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-207869/28		825391	5.40	654310	8.22	303122	10.61
CCVIS 240-211382/3		698657	5.40	544074	8.22	226678	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCVIS 240-211382/3 Date Analyzed: 12/17/2015 16:41

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1248334.D Heated Purge: (Y/N) N

Calibration ID: 31689

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		698657	5.40	544074	8.22	226678	10.61
UPPER LIMIT		1397314	5.90	1088148	8.72	453356	11.11
LOWER LIMIT		349329	4.90	272037	7.72	113339	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211382/4		662936	5.40	527660	8.22	207237	10.60
LB 240-211257/1-A MB		659210	5.40	510819	8.22	212120	10.61
LCS 240-211382/9		680074	5.40	535044	8.22	246780	10.61
240-59150-1	D-SD-WC-1	682413	5.40	527288	8.22	221810	10.61
240-59150-1 MS	D-SD-WC-1 MS	650957	5.40	507784	8.22	223331	10.61
240-59150-1 MSD	D-SD-WC-1 MSD	698371	5.40	535767	8.22	226003	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid (TCLP) | Lab File ID: U1248352.D

Analysis Method: 8260B | Date Collected: 12/15/2015 14:00

Sample wt/vol: 0.1(mL) | Date Analyzed: 12/17/2015 23:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211382 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0095	U F2	0.025	0.0095
107-06-2	1,2-Dichloroethane	0.011	U F2	0.025	0.011
78-93-3	2-Butanone (MEK)	0.029	U F2	0.25	0.029
71-43-2	Benzene	0.0065	U F2	0.025	0.0065
56-23-5	Carbon tetrachloride	0.0065	U F2	0.025	0.0065
108-90-7	Chlorobenzene	0.0075	U F2	0.025	0.0075
67-66-3	Chloroform	0.0080	U F2	0.025	0.0080
127-18-4	Tetrachloroethene	0.015	U F2	0.025	0.015
79-01-6	Trichloroethene	0.0085	U F2	0.025	0.0085
75-01-4	Vinyl chloride	0.011	U F2	0.025	0.011

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		80-121
460-00-4	4-Bromofluorobenzene (Surr)	82		70-124
2037-26-5	Toluene-d8 (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		80-128

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-207869/7	U1247758.D
Level 2	STD8260 240-207869/8	U1247759.D
Level 3	STD8260 240-207869/9	U1247760.D
Level 4	ICIS 240-207869/10	U1247761.D
Level 5	STD8260 240-207869/11	U1247762.D
Level 6	STD8260 240-207869/12	U1247763.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.6206 0.5594	0.5654	0.6307	0.6282	0.6063	Ave		0.6018				5.3		15.0			
Chloromethane	0.8289 0.5569	0.5832	0.6046	0.6043	0.5690	Lin1	0.1096	0.5662			0.1000				0.9990		0.9900
Vinyl chloride	0.6550 0.5868	0.6427	0.6260	0.6452	0.6024	Ave		0.6263				4.3		15.0			
Butadiene	+++++ 0.4838	0.6298	0.5281	0.5210	0.5093	Ave		0.5344				10.5		15.0			
Bromomethane	0.4728 0.3663	0.4203	0.3320	0.3446	0.3419	Ave		0.3796				14.6		15.0			
Chloroethane	0.4781 0.3916	0.4251	0.4058	0.4097	0.4000	Ave		0.4184				7.5		15.0			
Dichlorofluoromethane	+++++ 0.8944	1.0413	0.8593	0.9004	0.8745	Ave		0.9140				8.0		15.0			
Trichlorofluoromethane	0.5514 0.6820	0.6094	0.7001	0.7222	0.7027	Ave		0.6613				10.1		15.0			
Ethyl ether	0.3765 0.2805	0.3030	0.2880	0.2998	0.2710	Ave		0.3031				12.5		15.0			
Acrolein	+++++ 0.0305	0.0352	0.0281	0.0298	0.0287	Ave		0.0305				9.2		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4373 0.4237	0.3678	0.4279	0.4089	0.3909	Ave		0.4094				6.4		15.0			
1,1-Dichloroethene	0.7038 0.6789	0.6600	0.6682	0.6680	0.6186	Ave		0.6662				4.2		15.0			
Acetone	+++++ 0.1204	0.3593	0.1466	0.1320	0.1245	Lin1	0.4913	0.1182							1.0000		0.9900
Iodomethane	0.6653 0.6897	0.6872	0.6923	0.7111	0.6745	Ave		0.6867				2.3		15.0			
Carbon disulfide	1.1420 1.0797	1.0373	1.1028	1.1266	1.0500	Ave		1.0897				3.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.3526	0.7881	0.4686	0.4394	0.4038	Lin1	0.5004	0.3716							0.9930		0.9900
Methyl acetate	+++++ 0.2760	0.3844	0.2785	0.2834	0.2654	Lin1	0.5497	0.2714							0.9990		0.9900
Methylene Chloride	+++++ 0.5638	1.0281	0.5824	0.5812	0.5455	Lin1	0.4630	0.5503							1.0000		0.9900
2-Methyl-2-propanol	0.0626 0.0485	0.0602	0.0496	0.0471	0.0477	Ave		0.0526				13.1		15.0			
Acrylonitrile	+++++ 0.1539	0.1704	0.1537	0.1552	0.1478	Ave		0.1562				5.4		15.0			
Methyl tert-butyl ether	1.3751 1.0570	1.2331	1.0540	1.0901	1.0280	Ave		1.1395				12.0		15.0			
trans-1,2-Dichloroethene	0.5545 0.4554	0.4524	0.4559	0.4752	0.4430	Ave		0.4727				8.8		15.0			
Hexane	+++++ 0.2743	0.3188	0.2795	0.2728	0.2560	Ave		0.2803				8.3		15.0			
1,1-Dichloroethane	0.5892 0.5508	0.5541	0.5679	0.5909	0.5355	Ave		0.5647			0.1000	3.9		15.0			
Vinyl acetate	+++++ 0.6255	0.7008	0.6358	0.6281	0.6138	Ave		0.6408				5.4		15.0			
2-Butanone (MEK)	0.2922 0.1681	0.2469	0.1734	0.1693	0.1621	Lin1	0.1384	0.1652							1.0000		0.9900
cis-1,2-Dichloroethene	0.6289 0.4408	0.5569	0.4600	0.4701	0.4391	Lin1	0.1066	0.4426							1.0000		0.9900
2,2-Dichloropropane	0.5236 0.2619	0.3922	0.3056	0.3167	0.2769	Lin1	0.1392	0.2722							0.9960		0.9900
Chlorobromomethane	0.2776 0.2402	0.2558	0.2628	0.2612	0.2474	Ave		0.2575				5.1		15.0			
Tetrahydrofuran	+++++ 0.1056	0.1273	0.1124	0.1070	0.1013	Ave		0.1107				9.1		15.0			
Chloroform	0.6363 0.5174	0.6131	0.5439	0.5625	0.5044	Ave		0.5629				9.3		15.0			
1,1,1-Trichloroethane	0.5570 0.4751	0.5176	0.4982	0.4988	0.4694	Ave		0.5027				6.3		15.0			
Cyclohexane	+++++ 0.4338	0.3779	0.4400	0.4311	0.4193	Ave		0.4204				5.9		15.0			
1,1-Dichloropropene	0.4580 0.3887	0.3725	0.3831	0.4132	0.3733	Ave		0.3981				8.2		15.0			
Carbon tetrachloride	0.4613 0.4167	0.3664	0.4008	0.4310	0.3946	Ave		0.4118				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	+++++ 0.0139	0.0151	0.0135	0.0133	0.0132	Ave		0.0138				5.6		15.0			
Benzene	1.5962 1.2852	1.3226	1.3173	1.3491	1.2506	Ave		1.3535				9.1		15.0			
1,2-Dichloroethane	0.4579 0.4341	0.4750	0.4253	0.4657	0.4201	Ave		0.4463				5.1		15.0			
n-Heptane	+++++ 0.0787	0.0597	0.0740	0.0735	0.0728	Ave		0.0717				9.9		15.0			
Trichloroethene	0.3684 0.3220	0.3192	0.3390	0.3518	0.3139	Ave		0.3357				6.4		15.0			
Methylcyclohexane	0.4595 0.3698	0.3524	0.3663	0.3539	0.3339	Ave		0.3726				11.9		15.0			
1,2-Dichloropropane	0.3571 0.3109	0.3569	0.3157	0.3268	0.3083	Ave		0.3293				6.8		15.0			
Dibromomethane	0.2353 0.2175	0.2508	0.2276	0.2321	0.2175	Ave		0.2302				5.4		15.0			
1,4-Dioxane	+++++ 0.0068	0.0019	0.0066	0.0064	0.0064	Lin1	-0.095	0.0067							0.9990		0.9900
Dichlorobromomethane	0.5241 0.4244	0.4964	0.4176	0.4374	0.4114	Ave		0.4519				10.4		15.0			
2-Chloroethyl vinyl ether	0.2415 0.2403	0.2565	0.2433	0.2484	0.2278	Ave		0.2430				3.9		15.0			
cis-1,3-Dichloropropene	0.5205 0.5474	0.5438	0.5395	0.5626	0.5320	Ave		0.5410				2.6		15.0			
4-Methyl-2-pentanone (MIBK)	0.3880 0.3375	0.3468	0.3401	0.3452	0.3232	Ave		0.3468				6.3		15.0			
Toluene	1.9386 1.6565	1.7579	1.7074	1.7685	1.6641	Ave		1.7488				5.9		15.0			
trans-1,3-Dichloropropene	0.6894 0.6207	0.6144	0.6445	0.6694	0.6224	Ave		0.6435				4.7		15.0			
Ethyl methacrylate	0.7210 0.5860	0.6347	0.5897	0.6196	0.5784	Ave		0.6216				8.6		15.0			
1,1,2-Trichloroethane	0.5199 0.3637	0.4167	0.3934	0.4079	0.3720	Ave		0.4123				13.7		15.0			
Tetrachloroethene	0.3859 0.3158	0.3568	0.3291	0.3528	0.3165	Ave		0.3428				8.0		15.0			
1,3-Dichloropropane	0.7598 0.7082	0.7430	0.7191	0.7472	0.7004	Ave		0.7296				3.3		15.0			
2-Hexanone	0.3390 0.3046	0.3351	0.3131	0.3164	0.2990	Ave		0.3179				5.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.4514 0.4185	0.4638	0.3940	0.4442	0.4166	Ave		0.4314				6.0		15.0			
Ethylene Dibromide	0.5014 0.3993	0.4296	0.4094	0.4115	0.4044	Ave		0.4260				9.0		15.0			
Chlorobenzene	1.3973 1.0954	1.1776	1.1128	1.1940	1.1021	Ave		1.1799			0.3000	9.7		15.0			
1,1,1,2-Tetrachloroethane	0.4941 0.3939	0.4695	0.3992	0.4141	0.3948	Ave		0.4276				10.1		15.0			
Ethylbenzene	0.6203 0.5114	0.5101	0.5190	0.5718	0.5135	Ave		0.5410				8.4		15.0			
m-Xylene & p-Xylene	0.6704 0.6382	0.6331	0.6417	0.6899	0.6301	Ave		0.6506				3.7		15.0			
o-Xylene	0.7874 0.6491	0.6197	0.6463	0.6893	0.6463	Ave		0.6730				9.0		15.0			
Styrene	1.3913 1.2512	1.2565	1.2331	1.2861	1.2395	Ave		1.2763				4.6		15.0			
Bromoform	0.2956 0.3125	0.2372	0.2936	0.3374	0.3085	Ave		0.2975			0.1000	11.2		15.0			
Isopropylbenzene	1.5618 1.3928	1.4364	1.3454	1.4488	1.3490	Ave		1.4224				5.7		15.0			
1,1,2,2-Tetrachloroethane	1.7833 1.2545	1.4148	1.3818	1.3848	1.3428	Ave		1.4270			0.3000	12.8		15.0			
Bromobenzene	1.1816 1.0353	1.1560	1.1460	1.1970	1.0711	Ave		1.1312				5.7		15.0			
1,2,3-Trichloropropane	0.4508 0.4496	0.4687	0.4869	0.5173	0.4875	Ave		0.4768				5.4		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.4412	0.3916	0.4575	0.4659	0.4365	Ave		0.4385				6.6		15.0			
N-Propylbenzene	1.0514 0.8335	0.9476	0.9312	0.9514	0.8657	Ave		0.9301				8.2		15.0			
2-Chlorotoluene	0.8138 0.8184	0.7992	0.8908	0.8947	0.8655	Ave		0.8471				4.9		15.0			
1,3,5-Trimethylbenzene	2.9550 2.6800	2.6640	2.7726	2.9059	2.7079	Ave		2.7809				4.4		15.0			
4-Chlorotoluene	0.9264 0.9068	1.1509	1.0221	0.9916	0.9537	Ave		0.9919				8.9		15.0			
tert-Butylbenzene	2.3694 2.2914	2.3099	2.3419	2.4891	2.3483	Ave		2.3583				3.0		15.0			
1,2,4-Trimethylbenzene	3.5192 2.9332	3.2434	3.0253	3.1540	2.9787	Ave		3.1423				6.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.4659 3.0756	3.4889	3.2127	3.3618	3.1162	Ave		3.2869				5.4		15.0			
1,3-Dichlorobenzene	2.0801 1.7369	1.9025	1.8774	1.9091	1.8027	Ave		1.8848				6.2		15.0			
4-Isopropyltoluene	3.0984 2.9147	2.8174	2.9199	3.0378	2.9361	Ave		2.9540				3.4		15.0			
1,4-Dichlorobenzene	2.1538 1.8217	2.0830	1.9372	2.0289	1.9202	Ave		1.9908				6.1		15.0			
n-Butylbenzene	3.0099 2.4036	2.5796	2.4232	2.5842	2.4471	Ave		2.5746				8.8		15.0			
1,2-Dichlorobenzene	1.6016 1.8050	1.9370	2.0066	1.9950	1.8846	Ave		1.8717				8.1		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.3593	0.3978	0.3815	0.3846	0.3754	Ave		0.3797				3.7		15.0			
1,2,4-Trichlorobenzene	1.3670 1.1754	1.2126	1.2480	1.3346	1.2298	Ave		1.2612				5.9		15.0			
Hexachlorobutadiene	+++++ 0.4532	0.5938	0.4814	0.5120	0.4887	Ave		0.5058				10.6		15.0			
Naphthalene	4.6316 4.0604	4.3638	4.2688	4.4108	4.2838	Ave		4.3365				4.3		15.0			
1,2,3-Trichlorobenzene	1.3656 1.1715	1.2012	1.1918	1.2789	1.2071	Ave		1.2360				5.9		15.0			
Dibromofluoromethane (Surr)	+++++ 0.2712	0.3247	0.2728	0.2806	0.2619	Ave		0.2822				8.7		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3322	0.3645	0.3662	0.3856	0.3389	Ave		0.3575				6.1		15.0			
Toluene-d8 (Surr)	+++++ 1.3617	1.5110	1.3702	1.4539	1.3904	Ave		1.4174				4.5		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5205	0.6629	0.5095	0.5203	0.5164	Ave		0.5459				12.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-207869/7	U1247758.D
Level 2	STD8260 240-207869/8	U1247759.D
Level 3	STD8260 240-207869/9	U1247760.D
Level 4	ICIS 240-207869/10	U1247761.D
Level 5	STD8260 240-207869/11	U1247762.D
Level 6	STD8260 240-207869/12	U1247763.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	11419 1802558	21170	236530	471637	966194	0.500 80.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Lin1	15252 1794575	21835	226735	453666	906817	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	12052 1890734	24062	234768	484371	960087	0.500 80.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1558804	23579	198037	391119	811624	+++++ 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	8700 1180190	15735	124506	258683	544941	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	8797 1261779	15916	152196	307596	637512	0.500 80.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	+++++ 2881960	38989	322258	675985	1393709	+++++ 80.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	10147 2197606	22816	262544	542203	1119857	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	6927 903924	11344	107993	225061	431954	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	+++++ 490956	6584	52714	111853	228933	+++++ 400	5.00	50.0	100	200
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	8046 1365267	13772	160454	307000	622907	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethene	FB	Ave	12950 2187738	24710	250565	501490	985914	0.500 80.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 776105	26902	109983	198160	396937	+++++ 160	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	12241 2222545	25730	259637	533849	1074998	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	21013 3479136	38836	413569	845822	1673341	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Lin1	+++++ 1136063	29507	175722	329900	643575	+++++ 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Lin1	+++++ 4447164	71962	522122	1063694	2114567	+++++ 400	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 1816860	38493	218417	436355	869300	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	11515 1563841	22535	185893	353972	760391	5.00 800	10.0	100	200	400
Acrylonitrile	FB	Ave	+++++ 4958513	63801	576549	1165319	2354650	+++++ 800	10.0	100	200	400
Methyl tert-butyl ether	FB	Ave	25302 3405835	46168	395255	818407	1638239	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,2-Dichloroethene	FB	Ave	10204 1467569	16940	170952	356791	705933	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	+++++ 883810	11935	104828	204816	408016	+++++ 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10842 1774788	20748	212960	443589	853356	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	+++++ 2015641	26238	238427	471539	978177	+++++ 80.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Lin1	10752 1083325	18485	130021	254264	516725	1.00 160	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Lin1	11572 1420306	20852	172492	352927	699792	0.500 80.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Lin1	9634 843837	14686	114585	237749	441275	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5108 773887	9577	98568	196070	394340	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 680732	9534	84317	160703	322779	+++++ 160	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	11708 1667056	22957	203962	422290	803785	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	10250 1530949	19378	186828	374446	747994	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	+++++ 1397767	14150	165020	323629	668160	+++++ 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8427 1252471	13948	143685	310205	594965	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8488 1342582	13719	150309	323569	628933	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	+++++ 1116955	14130	126972	249591	524874	+++++ 2000	25.0	250	500	1000
Benzene	FB	Ave	29371 4141207	49518	493987	1012842	1992976	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8425 1398672	17784	159510	349601	669451	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Ave	+++++ 253750	2236	27745	55168	115949	+++++ 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6778 1037665	11951	127147	264131	500192	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8455 1191598	13193	137377	265659	532100	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6570 1001711	13364	118381	245358	491263	0.500 80.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4330 701006	9392	85364	174283	346677	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	+++++ 435733	1394	49201	96132	202742	+++++ 1600	20.0	200	400	800
Dichlorobromomethane	FB	Ave	9644 1367450	18584	156620	328381	655605	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	8886 1548404	19206	182507	373025	725926	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	9577 1763876	20359	202331	422368	847758	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	14280 2174981	25968	255085	518307	1030108	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBZ	Ave	28361 4272931	52045	506743	1027508	2041620	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBZ	Ave	10086 1601136	18189	191272	388931	763562	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBZ	Ave	10548 1511613	18791	175019	359976	709626	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBZ	Ave	7606 938082	12337	116745	237014	456437	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBZ	Ave	5645 814550	10563	97686	204973	388249	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBZ	Ave	11116 1826809	21999	213407	434103	859331	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBZ	Ave	9920 1571414	19844	185870	367605	733558	1.00 160	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBZ	Ave	6604 1079536	13732	116923	258098	511137	0.500 80.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBZ	Ave	7336 1030123	12718	121514	239088	496201	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBZ	Ave	20442 2825521	34865	330281	693722	1352096	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	7229 1015989	13901	118476	240613	484322	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBZ	Ave	9075 1319294	15102	154023	332198	630031	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBZ	Ave	9808 1646354	18745	190464	400837	773052	0.500 80.0	1.00	10.0	20.0	40.0
o-Xylene	CBZ	Ave	11519 1674276	18347	191822	400451	792988	0.500 80.0	1.00	10.0	20.0	40.0
Styrene	CBZ	Ave	20354 3227504	37200	365965	747181	1520674	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBZ	Ave	4325 806109	7023	87128	196026	378469	0.500 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBZ	Ave	22849 3592917	42527	399293	841723	1655033	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCB	Ave	11552 1435062	17734	167229	337129	696899	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCB	Ave	7654 1184401	14490	138693	291404	555890	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCB	Ave	2920 514341	5875	58928	125941	253013	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 504717	4908	55374	113427	226560	+++++ 80.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCB	Ave	6811 953471	11878	112700	231614	449306	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCB	Ave	5272 936231	10018	107804	217825	449184	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCB	Ave	19142 3065811	33392	335548	707452	1405338	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCB	Ave	6001 1037323	14426	123705	241417	494932	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCB	Ave	15349 2621257	28953	283432	605991	1218744	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCB	Ave	22797 3355496	40655	366134	767860	1545890	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCB	Ave	22452 3518443	43732	388821	818443	1617255	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCB	Ave	13475 1987015	23847	227214	464780	935564	0.500 80.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCB	Ave	20071 3334350	35315	353377	739568	1523798	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCB	Ave	13952 2083968	26110	234455	493941	996528	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207869

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/20/2015 18:16 Calibration End Date: 11/20/2015 20:16 Calibration ID: 31692

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	19498 2749658	32334	293272	629122	1269993	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCB	Ave	10375 2064885	24280	242852	485700	978078	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 411001	4986	46168	93622	194842	+++++ 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCB	Ave	8855 1344661	15200	151042	324917	638236	0.500 80.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCB	Ave	+++++ 518436	7443	58263	124654	253607	+++++ 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCB	Ave	30003 4644944	54698	516630	1073818	2223246	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCB	Ave	8846 1340141	15056	144239	311361	626446	0.500 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 873746	12156	102292	210651	417369	+++++ 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1070518	13649	137337	289479	540027	+++++ 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBZ	Ave	+++++ 3512459	44737	406666	844718	1705806	+++++ 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	+++++ 1342636	19625	151200	302282	633565	+++++ 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-207869/28 Calibration Date: 11/21/2015 03:03

Instrument ID: A3UX12 Calib Start Date: 11/20/2015 18:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/20/2015 20:16

Lab File ID: U1247779.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.6018	0.4356		0.0145	0.0200	-27.6	50.0
Chloromethane	Lin1		0.5306	0.1000	0.0185	0.0200	-7.3	50.0
Vinyl chloride	Ave	0.6263	0.5450		0.0174	0.0200	-13.0	20.0
Bromomethane	Ave	0.3796	0.3407		0.0179	0.0200	-10.3	50.0
Chloroethane	Ave	0.4184	0.3825		0.0183	0.0200	-8.6	50.0
Dichlorofluoromethane	Ave	0.9140	0.8792		0.0192	0.0200	-3.8	50.0
Trichlorofluoromethane	Ave	0.6613	0.6292		0.0190	0.0200	-4.8	50.0
Ethyl ether	Ave	0.3031	0.2834		0.0187	0.0200	-6.5	50.0
Acrolein	Ave	0.0305	0.0458		0.150	0.100	50.5*	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.4094	0.3481		0.0170	0.0200	-15.0	50.0
1,1-Dichloroethene	Ave	0.6662	0.6210		0.0186	0.0200	-6.8	20.0
Acetone	Lin1		0.1174		0.0355	0.0400	-11.1	50.0
Iodomethane	Ave	0.6867	0.7187		0.0209	0.0200	4.7	50.0
Carbon disulfide	Ave	1.090	1.014		0.0186	0.0200	-7.0	50.0
3-Chloro-1-propene	Lin1		0.3618		0.0181	0.0200	-9.4	50.0
Methyl acetate	Lin1		0.2615		0.0943	0.100	-5.7	50.0
Methylene Chloride	Lin1		0.5961		0.0208	0.0200	4.1	50.0
2-Methyl-2-propanol	Ave	0.0526	0.0419		0.159	0.200	-20.3	50.0
Acrylonitrile	Ave	0.1562	0.1425		0.183	0.200	-8.7	50.0
Methyl tert-butyl ether	Ave	1.140	1.079		0.0189	0.0200	-5.3	50.0
trans-1,2-Dichloroethene	Ave	0.4727	0.4718		0.0200	0.0200	-0.2	50.0
Hexane	Ave	0.2803	0.2025		0.0145	0.0200	-27.7*	20.0
1,1-Dichloroethane	Ave	0.5647	0.5856	0.1000	0.0207	0.0200	3.7	50.0
Vinyl acetate	Ave	0.6408	0.5309		0.0166	0.0200	-17.1	50.0
2,2-Dichloropropane	Lin1		0.2724		0.0195	0.0200	-2.5	50.0
2-Butanone (MEK)	Lin1		0.1514		0.0358	0.0400	-10.5	50.0
cis-1,2-Dichloroethene	Lin1		0.4604		0.0206	0.0200	2.8	50.0
Chlorobromomethane	Ave	0.2575	0.2487		0.0193	0.0200	-3.4	50.0
Tetrahydrofuran	Ave	0.1107	0.0979		0.0354	0.0400	-11.6	50.0
Chloroform	Ave	0.5629	0.5421		0.0193	0.0200	-3.7	20.0
1,1,1-Trichloroethane	Ave	0.5027	0.4738		0.0189	0.0200	-5.7	50.0
Cyclohexane	Ave	0.4204	0.3523		0.0168	0.0200	-16.2	50.0
1,1-Dichloropropene	Ave	0.3981	0.4168		0.0209	0.0200	4.7	50.0
Carbon tetrachloride	Ave	0.4118	0.3786		0.0184	0.0200	-8.1	50.0
Isobutyl alcohol	Ave	0.0138	0.0111		0.402	0.500	-19.5	50.0
Benzene	Ave	1.353	1.298		0.0192	0.0200	-4.1	50.0
1,2-Dichloroethane	Ave	0.4463	0.4633		0.0208	0.0200	3.8	50.0
n-Heptane	Ave	0.0717	0.0525		0.0146	0.0200	-26.8	50.0
Trichloroethene	Ave	0.3357	0.3328		0.0198	0.0200	-0.9	50.0
Methylcyclohexane	Ave	0.3726	0.2699		0.0145	0.0200	-27.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-207869/28 Calibration Date: 11/21/2015 03:03

Instrument ID: A3UX12 Calib Start Date: 11/20/2015 18:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/20/2015 20:16

Lab File ID: U1247779.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3293	0.3220		0.0196	0.0200	-2.2	20.0
1,4-Dioxane	Lin1		0.0055		0.341	0.400	-14.6	50.0
Dibromomethane	Ave	0.2302	0.2251		0.0196	0.0200	-2.2	50.0
Dichlorobromomethane	Ave	0.4519	0.4301		0.0190	0.0200	-4.8	50.0
2-Chloroethyl vinyl ether	Ave	0.2430	0.2306		0.0190	0.0200	-5.1	50.0
cis-1,3-Dichloropropene	Ave	0.5410	0.5627		0.0208	0.0200	4.0	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3468	0.3175		0.0366	0.0400	-8.4	50.0
Toluene	Ave	1.749	1.662		0.0190	0.0200	-5.0	20.0
trans-1,3-Dichloropropene	Ave	0.6435	0.6712		0.0209	0.0200	4.3	50.0
Ethyl methacrylate	Ave	0.6216	0.5933		0.0191	0.0200	-4.5	50.0
1,1,2-Trichloroethane	Ave	0.4123	0.3792		0.0184	0.0200	-8.0	50.0
Tetrachloroethene	Ave	0.3428	0.3048		0.0178	0.0200	-11.1	50.0
1,3-Dichloropropane	Ave	0.7296	0.7298		0.0200	0.0200	0.0	50.0
2-Hexanone	Ave	0.3179	0.2847		0.0358	0.0400	-10.4	50.0
Chlorodibromomethane	Ave	0.4314	0.3911		0.0181	0.0200	-9.4	50.0
Ethylene Dibromide	Ave	0.4260	0.4053		0.0190	0.0200	-4.8	50.0
Chlorobenzene	Ave	1.180	1.126	0.3000	0.0191	0.0200	-4.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.4276	0.3837		0.0179	0.0200	-10.3	50.0
Ethylbenzene	Ave	0.5410	0.4886		0.0181	0.0200	-9.7	20.0
m-Xylene & p-Xylene	Ave	0.6506	0.6214		0.0191	0.0200	-4.5	50.0
o-Xylene	Ave	0.6730	0.6504		0.0193	0.0200	-3.4	50.0
Styrene	Ave	1.276	1.152		0.0181	0.0200	-9.7	50.0
Bromoform	Ave	0.2975	0.2594	0.1000	0.0174	0.0200	-12.8	50.0
Isopropylbenzene	Ave	1.422	1.327		0.0187	0.0200	-6.7	50.0
1,1,2,2-Tetrachloroethane	Ave	1.427	1.234	0.3000	0.0173	0.0200	-13.5	50.0
Bromobenzene	Ave	1.131	1.025		0.0181	0.0200	-9.3	50.0
1,2,3-Trichloropropane	Ave	0.4768	0.4568		0.0192	0.0200	-4.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.4385	0.3595		0.0164	0.0200	-18.0	50.0
N-Propylbenzene	Ave	0.9301	0.7557		0.0162	0.0200	-18.8	50.0
2-Chlorotoluene	Ave	0.8471	0.7793		0.0184	0.0200	-8.0	50.0
1,3,5-Trimethylbenzene	Ave	2.781	2.410		0.0173	0.0200	-13.3	50.0
4-Chlorotoluene	Ave	0.9919	0.8725		0.0176	0.0200	-12.0	50.0
tert-Butylbenzene	Ave	2.358	2.081		0.0176	0.0200	-11.8	50.0
1,2,4-Trimethylbenzene	Ave	3.142	2.609		0.0166	0.0200	-17.0	50.0
sec-Butylbenzene	Ave	3.287	2.777		0.0169	0.0200	-15.5	50.0
1,3-Dichlorobenzene	Ave	1.885	1.623		0.0172	0.0200	-13.9	50.0
4-Isopropyltoluene	Ave	2.954	2.521		0.0171	0.0200	-14.7	50.0
1,4-Dichlorobenzene	Ave	1.991	1.760		0.0177	0.0200	-11.6	50.0
n-Butylbenzene	Ave	2.575	2.025		0.0157	0.0200	-21.3	50.0
1,2-Dichlorobenzene	Ave	1.872	1.723		0.0184	0.0200	-8.0	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.3797	0.3179		0.0167	0.0200	-16.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-207869/28 Calibration Date: 11/21/2015 03:03

Instrument ID: A3UX12 Calib Start Date: 11/20/2015 18:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/20/2015 20:16

Lab File ID: U1247779.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	1.261	1.046		0.0166	0.0200	-17.0	50.0
Hexachlorobutadiene	Ave	0.5058	0.3840		0.0152	0.0200	-24.1	50.0
Naphthalene	Ave	4.337	3.608		0.0166	0.0200	-16.8	50.0
1,2,3-Trichlorobenzene	Ave	1.236	0.9723		0.0157	0.0200	-21.3	50.0
Dibromofluoromethane (Surr)	Ave	0.2822	0.2652		0.0155	0.0165	-6.0	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3575	0.3107		0.0144	0.0165	-13.1	50.0
Toluene-d8 (Surr)	Ave	1.417	1.361		0.0159	0.0165	-4.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5459	0.4821		0.0146	0.0165	-11.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVIS 240-211382/3 Calibration Date: 12/17/2015 16:41

Instrument ID: A3UX12 Calib Start Date: 11/20/2015 18:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/20/2015 20:16

Lab File ID: U1248334.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.6018	0.6671		0.0222	0.0200	10.9	50.0
Chloromethane	Lin1		0.4475	0.1000	0.0156	0.0200	-21.9	50.0
Vinyl chloride	Ave	0.6263	0.5551		0.0177	0.0200	-11.4	20.0
Bromomethane	Ave	0.3796	0.3163		0.0167	0.0200	-16.7	50.0
Chloroethane	Ave	0.4184	0.3395		0.0162	0.0200	-18.8	50.0
Dichlorofluoromethane	Ave	0.9140	0.6712		0.0147	0.0200	-26.6	50.0
Trichlorofluoromethane	Ave	0.6613	0.6528		0.0197	0.0200	-1.3	50.0
Ethyl ether	Ave	0.3031	0.2466		0.0163	0.0200	-18.6	50.0
Acrolein	Ave	0.0305	0.0489		0.161	0.100	60.6*	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.4094	0.3863		0.0189	0.0200	-5.7	50.0
1,1-Dichloroethene	Ave	0.6662	0.5958		0.0179	0.0200	-10.6	20.0
Acetone	Lin1		0.0917		0.0269	0.0400	-32.8	50.0
Iodomethane	Ave	0.6867	0.6742		0.0196	0.0200	-1.8	50.0
Carbon disulfide	Ave	1.090	1.006		0.0185	0.0200	-7.7	50.0
3-Chloro-1-propene	Lin1		0.3656		0.0183	0.0200	-8.4	50.0
Methyl acetate	Lin1		0.2043		0.0733	0.100	-26.7	50.0
Methylene Chloride	Lin1		0.4484		0.0155	0.0200	-22.7	50.0
2-Methyl-2-propanol	Ave	0.0526	0.0337		0.128	0.200	-36.0	50.0
Acrylonitrile	Ave	0.1562	0.1210		0.155	0.200	-22.5	50.0
Methyl tert-butyl ether	Ave	1.140	0.9384		0.0165	0.0200	-17.6	50.0
trans-1,2-Dichloroethene	Ave	0.4727	0.4055		0.0172	0.0200	-14.2	50.0
Hexane	Ave	0.2803	0.2349		0.0168	0.0200	-16.2	20.0
1,1-Dichloroethane	Ave	0.5647	0.5207	0.1000	0.0184	0.0200	-7.8	50.0
Vinyl acetate	Ave	0.6408	0.4194		0.0131	0.0200	-34.6	50.0
2,2-Dichloropropane	Lin1		0.2666		0.0191	0.0200	-4.6	50.0
2-Butanone (MEK)	Lin1		0.1205		0.0283	0.0400	-29.1	50.0
cis-1,2-Dichloroethene	Lin1		0.4157		0.0185	0.0200	-7.3	50.0
Chlorobromomethane	Ave	0.2575	0.2018		0.0157	0.0200	-21.6	50.0
Tetrahydrofuran	Ave	0.1107	0.0771		0.0278	0.0400	-30.4	50.0
Chloroform	Ave	0.5629	0.5347		0.0190	0.0200	-5.0	20.0
1,1,1-Trichloroethane	Ave	0.5027	0.3930		0.0156	0.0200	-21.8	50.0
Cyclohexane	Ave	0.4204	0.3985		0.0190	0.0200	-5.2	50.0
1,1-Dichloropropene	Ave	0.3981	0.3721		0.0187	0.0200	-6.5	50.0
Carbon tetrachloride	Ave	0.4118	0.3330		0.0162	0.0200	-19.1	50.0
Isobutyl alcohol	Ave	0.0138	0.0076		0.276	0.500	-44.9	50.0
Benzene	Ave	1.353	1.303		0.0193	0.0200	-3.7	50.0
1,2-Dichloroethane	Ave	0.4463	0.4257		0.0191	0.0200	-4.6	50.0
n-Heptane	Ave	0.0717	0.0650		0.0181	0.0200	-9.4	50.0
Trichloroethene	Ave	0.3357	0.3390		0.0202	0.0200	1.0	50.0
Methylcyclohexane	Ave	0.3726	0.3202		0.0172	0.0200	-14.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVIS 240-211382/3 Calibration Date: 12/17/2015 16:41

Instrument ID: A3UX12 Calib Start Date: 11/20/2015 18:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/20/2015 20:16

Lab File ID: U1248334.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3293	0.2927		0.0178	0.0200	-11.1	20.0
1,4-Dioxane	Lin1		0.0062		0.383	0.400	-4.2	50.0
Dibromomethane	Ave	0.2302	0.2196		0.0191	0.0200	-4.6	50.0
Dichlorobromomethane	Ave	0.4519	0.3610		0.0160	0.0200	-20.1	50.0
2-Chloroethyl vinyl ether	Ave	0.2430	0.2126		0.0350	0.0400	-12.5	50.0
cis-1,3-Dichloropropene	Ave	0.5410	0.4483		0.0166	0.0200	-17.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3468	0.2777		0.0320	0.0400	-19.9	50.0
Toluene	Ave	1.749	1.695		0.0194	0.0200	-3.1	20.0
trans-1,3-Dichloropropene	Ave	0.6435	0.4941		0.0154	0.0200	-23.2	50.0
Ethyl methacrylate	Ave	0.6216	0.5165		0.0166	0.0200	-16.9	50.0
1,1,2-Trichloroethane	Ave	0.4123	0.3764		0.0183	0.0200	-8.7	50.0
Tetrachloroethene	Ave	0.3428	0.3279		0.0191	0.0200	-4.3	50.0
1,3-Dichloropropane	Ave	0.7296	0.7016		0.0192	0.0200	-3.8	50.0
2-Hexanone	Ave	0.3179	0.2570		0.0323	0.0400	-19.1	50.0
Chlorodibromomethane	Ave	0.4314	0.3135		0.0145	0.0200	-27.3	50.0
Ethylene Dibromide	Ave	0.4260	0.4105		0.0193	0.0200	-3.6	50.0
Chlorobenzene	Ave	1.180	1.164	0.3000	0.0197	0.0200	-1.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.4276	0.3427		0.0160	0.0200	-19.8	50.0
Ethylbenzene	Ave	0.5410	0.5103		0.0189	0.0200	-5.7	20.0
m-Xylene & p-Xylene	Ave	0.6506	0.6449		0.0198	0.0200	-0.9	50.0
o-Xylene	Ave	0.6730	0.6562		0.0195	0.0200	-2.5	50.0
Styrene	Ave	1.276	1.216		0.0191	0.0200	-4.7	50.0
Bromoform	Ave	0.2975	0.1811	0.1000	0.0122	0.0200	-39.1	50.0
Isopropylbenzene	Ave	1.422	1.347		0.0189	0.0200	-5.3	50.0
1,1,2,2-Tetrachloroethane	Ave	1.427	1.368	0.3000	0.0192	0.0200	-4.1	50.0
Bromobenzene	Ave	1.131	1.138		0.0201	0.0200	0.6	50.0
1,2,3-Trichloropropane	Ave	0.4768	0.4966		0.0208	0.0200	4.1	50.0
trans-1,4-Dichloro-2-butene	Ave	0.4385	0.1931		0.00881	0.0200	-56.0*	50.0
N-Propylbenzene	Ave	0.9301	0.8729		0.0188	0.0200	-6.2	50.0
2-Chlorotoluene	Ave	0.8471	0.8766		0.0207	0.0200	3.5	50.0
1,3,5-Trimethylbenzene	Ave	2.781	2.702		0.0194	0.0200	-2.8	50.0
4-Chlorotoluene	Ave	0.9919	0.9534		0.0192	0.0200	-3.9	50.0
tert-Butylbenzene	Ave	2.358	2.263		0.0192	0.0200	-4.0	50.0
1,2,4-Trimethylbenzene	Ave	3.142	2.928		0.0186	0.0200	-6.8	50.0
sec-Butylbenzene	Ave	3.287	3.105		0.0189	0.0200	-5.5	50.0
1,3-Dichlorobenzene	Ave	1.885	1.834		0.0195	0.0200	-2.7	50.0
4-Isopropyltoluene	Ave	2.954	2.832		0.0192	0.0200	-4.1	50.0
1,4-Dichlorobenzene	Ave	1.991	2.000		0.0201	0.0200	0.5	50.0
n-Butylbenzene	Ave	2.575	2.273		0.0177	0.0200	-11.7	50.0
1,2-Dichlorobenzene	Ave	1.872	1.918		0.0205	0.0200	2.5	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.3797	0.3107		0.0164	0.0200	-18.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVIS 240-211382/3 Calibration Date: 12/17/2015 16:41

Instrument ID: A3UX12 Calib Start Date: 11/20/2015 18:16

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 11/20/2015 20:16

Lab File ID: U1248334.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	1.261	1.167		0.0185	0.0200	-7.4	50.0
Hexachlorobutadiene	Ave	0.5058	0.4373		0.0173	0.0200	-13.5	50.0
Naphthalene	Ave	4.337	3.972		0.0183	0.0200	-8.4	50.0
1,2,3-Trichlorobenzene	Ave	1.236	1.137		0.0184	0.0200	-8.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2822	0.2615		0.0153	0.0165	-7.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3575	0.3248		0.0150	0.0165	-9.1	50.0
Toluene-d8 (Surr)	Ave	1.417	1.322		0.0154	0.0165	-6.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5459	0.4509		0.0136	0.0165	-17.4	50.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LB 240-211257/1-A MB

Matrix: Solid (TCLP) | Lab File ID: U1248337.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 0.1(mL) | Date Analyzed: 12/17/2015 17:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211382 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0095	U	0.025	0.0095
107-06-2	1,2-Dichloroethane	0.011	U	0.025	0.011
78-93-3	2-Butanone (MEK)	0.029	U	0.25	0.029
71-43-2	Benzene	0.0065	U	0.025	0.0065
56-23-5	Carbon tetrachloride	0.0065	U	0.025	0.0065
108-90-7	Chlorobenzene	0.0075	U	0.025	0.0075
67-66-3	Chloroform	0.0080	U	0.025	0.0080
127-18-4	Tetrachloroethene	0.015	U	0.025	0.015
79-01-6	Trichloroethene	0.0085	U	0.025	0.0085
75-01-4	Vinyl chloride	0.011	U	0.025	0.011

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		80-121
460-00-4	4-Bromofluorobenzene (Surr)	81		70-124
2037-26-5	Toluene-d8 (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	90		80-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211382/9

Matrix: Solid | Lab File ID: U1248338.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 0.1(mL) | Date Analyzed: 12/17/2015 18:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211382 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.921		0.025	0.0095
107-06-2	1,2-Dichloroethane	1.00		0.025	0.011
78-93-3	2-Butanone (MEK)	1.62		0.25	0.029
71-43-2	Benzene	1.00		0.025	0.0065
56-23-5	Carbon tetrachloride	0.807		0.025	0.0065
108-90-7	Chlorobenzene	1.06		0.025	0.0075
67-66-3	Chloroform	1.00		0.025	0.0080
127-18-4	Tetrachloroethene	1.01		0.025	0.015
79-01-6	Trichloroethene	1.10		0.025	0.0085
75-01-4	Vinyl chloride	0.793		0.025	0.011

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		80-121
460-00-4	4-Bromofluorobenzene (Surr)	78		70-124
2037-26-5	Toluene-d8 (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS | Lab Sample ID: 240-59150-1 MS

Matrix: Solid (TCLP) | Lab File ID: U1248355.D

Analysis Method: 8260B | Date Collected: 12/15/2015 14:00

Sample wt/vol: 0.1(mL) | Date Analyzed: 12/18/2015 00:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211382 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.844		0.025	0.0095
107-06-2	1,2-Dichloroethane	0.994		0.025	0.011
78-93-3	2-Butanone (MEK)	1.39		0.25	0.029
71-43-2	Benzene	0.955		0.025	0.0065
56-23-5	Carbon tetrachloride	0.709		0.025	0.0065
108-90-7	Chlorobenzene	0.961		0.025	0.0075
67-66-3	Chloroform	0.965		0.025	0.0080
127-18-4	Tetrachloroethene	0.896		0.025	0.015
79-01-6	Trichloroethene	0.999		0.025	0.0085
75-01-4	Vinyl chloride	0.749		0.025	0.011

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		80-121
460-00-4	4-Bromofluorobenzene (Surr)	77		70-124
2037-26-5	Toluene-d8 (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MSD | Lab Sample ID: 240-59150-1 MSD

Matrix: Solid (TCLP) | Lab File ID: U1248356.D

Analysis Method: 8260B | Date Collected: 12/15/2015 14:00

Sample wt/vol: 0.1(mL) | Date Analyzed: 12/18/2015 01:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211382 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.804		0.025	0.0095
107-06-2	1,2-Dichloroethane	0.916		0.025	0.011
78-93-3	2-Butanone (MEK)	1.40		0.25	0.029
71-43-2	Benzene	0.904		0.025	0.0065
56-23-5	Carbon tetrachloride	0.707		0.025	0.0065
108-90-7	Chlorobenzene	0.932		0.025	0.0075
67-66-3	Chloroform	0.917		0.025	0.0080
127-18-4	Tetrachloroethene	0.921		0.025	0.015
79-01-6	Trichloroethene	1.01		0.025	0.0085
75-01-4	Vinyl chloride	0.714		0.025	0.011

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		80-121
460-00-4	4-Bromofluorobenzene (Surr)	84		70-124
2037-26-5	Toluene-d8 (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	88		80-128

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A3UX12 Start Date: 11/20/2015 17:24

Analysis Batch Number: 207869 End Date: 11/21/2015 03:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-207869/1		11/20/2015 17:24	1	BFB3103.D	DB-624 0.18(mm)
STD8260 240-207869/7 IC		11/20/2015 18:16	1	U1247758.D	DB-624 0.18(mm)
STD8260 240-207869/8 IC		11/20/2015 18:38	1	U1247759.D	DB-624 0.18(mm)
STD8260 240-207869/9 IC		11/20/2015 19:01	1	U1247760.D	DB-624 0.18(mm)
ICIS 240-207869/10		11/20/2015 19:26	1	U1247761.D	DB-624 0.18(mm)
STD8260 240-207869/11 IC		11/20/2015 19:51	1	U1247762.D	DB-624 0.18(mm)
STD8260 240-207869/12 IC		11/20/2015 20:16	1	U1247763.D	DB-624 0.18(mm)
STDA9 240-207869/15 IC		11/20/2015 21:33	1		DB-624 0.18(mm)
STDA9 240-207869/16 IC		11/20/2015 21:58	1		DB-624 0.18(mm)
STDA9 240-207869/17 IC		11/20/2015 22:23	1		DB-624 0.18(mm)
STDA9 240-207869/18 IC		11/20/2015 22:48	1		DB-624 0.18(mm)
STDA9 240-207869/19 IC		11/20/2015 23:13	1		DB-624 0.18(mm)
STDA9 240-207869/20 IC		11/20/2015 23:38	1		DB-624 0.18(mm)
ICV 240-207869/21		11/21/2015 00:03	1		DB-624 0.18(mm)
MRL 240-207869/22 MDLV		11/21/2015 00:29	1		DB-624 0.18(mm)
MDLV 240-207869/23		11/21/2015 00:54	1		DB-624 0.18(mm)
MDLV 240-207869/24		11/21/2015 01:20	1		DB-624 0.18(mm)
MDLV 240-207869/25		11/21/2015 01:46	1		DB-624 0.18(mm)
MDLV 240-207869/26		11/21/2015 02:11	1		DB-624 0.18(mm)
ZZZZZ		11/21/2015 02:37	1		DB-624 0.18(mm)
ICV 240-207869/28		11/21/2015 03:03	1	U1247779.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A3UX12 Start Date: 12/17/2015 16:12

Analysis Batch Number: 211382 End Date: 12/18/2015 02:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-211382/1		12/17/2015 16:12	1	BFB3123.D	DB-624 0.18(mm)
CCVIS 240-211382/3		12/17/2015 16:41	1	U1248334.D	DB-624 0.18(mm)
CCV 240-211382/4		12/17/2015 17:26	1	U1248336.D	DB-624 0.18(mm)
LB 240-211257/1-A MB		12/17/2015 17:48	1	U1248337.D	DB-624 0.18(mm)
LCS 240-211382/9		12/17/2015 18:12	1	U1248338.D	DB-624 0.18(mm)
ZZZZZ		12/17/2015 18:36	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 19:19	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 19:43	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 20:07	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 20:28	2		DB-624 0.18(mm)
ZZZZZ		12/17/2015 20:51	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 21:15	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 21:37	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 22:01	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 22:25	2		DB-624 0.18(mm)
ZZZZZ		12/17/2015 22:48	1		DB-624 0.18(mm)
ZZZZZ		12/17/2015 23:12	1		DB-624 0.18(mm)
240-59150-1	D-SD-WC-1	12/17/2015 23:36	1	U1248352.D	DB-624 0.18(mm)
ZZZZZ		12/17/2015 23:59	2		DB-624 0.18(mm)
ZZZZZ		12/18/2015 00:23	2		DB-624 0.18(mm)
240-59150-1 MS	D-SD-WC-1 MS	12/18/2015 00:46	1	U1248355.D	DB-624 0.18(mm)
240-59150-1 MSD	D-SD-WC-1 MSD	12/18/2015 01:09	1	U1248356.D	DB-624 0.18(mm)
ZZZZZ		12/18/2015 01:33	1		DB-624 0.18(mm)
ZZZZZ		12/18/2015 01:56	1		DB-624 0.18(mm)
ZZZZZ		12/18/2015 02:20	1		DB-624 0.18(mm)
ZZZZZ		12/18/2015 02:43	1		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211257 Batch Start Date: 12/16/15 20:00 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 12/17/15 12:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXSYRFILTERS 00019	EXTCLPBUFF1 00701	EXZHEFILTERS 00012			
240-59150-1	D-SD-WC-1	1311, 8260B	P	1	1 mL	1			

Batch Notes	
Tumbler Rotations per Minute	F, G = 29rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
D-SD-WC-1	240-59150-1	92	95	103	104
	MB 240-211550/6	92	92	93	84
	LCS 240-211550/5	89	85	91	84
	LCS 240-211550/7	85	85	87	84

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 147122.D

Lab ID: LCS 240-211550/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	55.2	110	80-120	
1,1,1-Trichloroethane	50.0	52.3	105	77-126	
1,1,2,2-Tetrachloroethane	50.0	52.0	104	77-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.2	102	80-138	
1,1-Dichloroethane	50.0	49.6	99	76-120	
1,1-Dichloroethene	50.0	46.7	93	75-135	
1,1-Dichloropropene	50.0	55.7	111	80-120	
1,2,3-Trichlorobenzene	50.0	48.3	97	61-121	
1,2,3-Trichloropropane	50.0	55.3	111	80-126	
1,2,4-Trichlorobenzene	50.0	50.2	100	64-124	
1,2,4-Trimethylbenzene	50.0	52.5	105	80-129	
1,2-Dibromo-3-Chloropropane	50.0	52.3	105	61-132	
1,2-Dichlorobenzene	50.0	49.9	100	76-120	
1,2-Dichloroethane	50.0	49.7	99	72-120	
1,2-Dichloropropane	50.0	50.7	101	80-120	
1,3-Dichlorobenzene	50.0	49.7	99	78-120	
1,3-Dichloropropane	50.0	51.2	102	80-120	
1,4-Dichlorobenzene	50.0	48.0	96	75-120	
2,2-Dichloropropane	50.0	51.7	103	69-135	
2-Butanone (MEK)	100	99.9	100	52-131	
2-Chloroethyl vinyl ether	50.0	57.6	115	28-173	
2-Chlorotoluene	50.0	51.4	103	78-120	
2-Hexanone	100	99.6	100	64-136	
4-Chlorotoluene	50.0	51.2	102	79-120	
p-Isopropyltoluene	50.0	51.5	103	77-131	
4-Methyl-2-pentanone (MIBK)	100	99.3	99	67-135	
Acetone	100	94.9	95	41-137	
Benzene	50.0	50.7	101	79-120	
Bromobenzene	50.0	51.5	103	80-120	
Bromoform	50.0	48.6	97	62-133	
Bromomethane	20.0	19.1	95	42-136	
Carbon disulfide	50.0	51.9	104	62-146	
Carbon tetrachloride	50.0	53.0	106	71-129	
Chlorobenzene	50.0	49.6	99	78-120	
Dibromochloromethane	50.0	52.8	106	72-127	
Chloroethane	20.0	17.7	88	58-120	
Chloroform	50.0	47.0	94	77-120	
Chloromethane	20.0	16.9	84	50-120	
cis-1,2-Dichloroethene	50.0	50.7	101	76-120	
cis-1,3-Dichloropropene	50.0	54.4	109	74-128	
Dibromomethane	50.0	52.5	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 147122.D

Lab ID: LCS 240-211550/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	50.0	49.7	99	79-120	
Dichlorodifluoromethane	20.0	13.3	66	26-120	
Bromodichloromethane	50.0	52.1	104	80-122	
tert-Butyl alcohol (TBA)	500	472	94	60-125	
Ethylbenzene	50.0	53.7	107	79-120	
Hexachlorobutadiene	50.0	52.9	106	54-131	
Isopropylbenzene	50.0	54.2	108	76-122	
Methyl tert-butyl ether	50.0	52.5	105	49-165	
Methylene Chloride	50.0	46.9	94	75-120	
m-Xylene & p-Xylene	50.0	52.5	105	80-120	
Naphthalene	50.0	51.6	103	65-123	
n-Butylbenzene	50.0	52.0	104	68-135	
N-Propylbenzene	50.0	52.8	106	80-129	
o-Xylene	50.0	53.9	108	80-120	
sec-Butylbenzene	50.0	53.5	107	74-129	
Styrene	50.0	51.0	102	80-120	
Tetrachloroethene	50.0	50.6	101	79-120	
Toluene	50.0	52.8	106	75-120	
trans-1,2-Dichloroethene	50.0	52.2	104	78-120	
trans-1,3-Dichloropropene	50.0	56.7	113	73-131	
Trichloroethene	50.0	52.2	104	79-120	
Trichlorofluoromethane	20.0	18.7	94	57-146	
Vinyl acetate	50.0	44.4	89	70-130	
Vinyl chloride	20.0	17.5	88	57-120	
Xylenes, Total	100	106	106	80-120	
tert-Butylbenzene	50.0	51.9	104	76-126	
1,2-Dibromoethane	50.0	54.7	109	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 147123.D Lab Sample ID: MB 240-211550/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 12/18/2015 15:12

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-211550/5	147122.D	12/18/2015 14:51
	LCS 240-211550/7	147124.D	12/18/2015 15:34
D-SD-WC-1	240-59150-1	147141.D	12/18/2015 21:39

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 240-209533/3	146837.D	12/04/2015	12:02
	IC 240-209533/4	146838.D	12/04/2015	12:23
	IC 240-209533/5	146839.D	12/04/2015	12:45
	ICIS 240-209533/6	146840.D	12/04/2015	13:06
	IC 240-209533/7	146841.D	12/04/2015	13:28
	IC 240-209533/8	146842.D	12/04/2015	13:49
	IC 240-209533/9	146843.D	12/04/2015	14:10
	IC 240-209533/10	146844.D	12/04/2015	14:32
	IC 240-209533/11	146845.D	12/04/2015	14:53
	IC 240-209533/12	146846.D	12/04/2015	15:15
	IC 240-209533/13	146847.D	12/04/2015	15:36
	IC 240-209533/14	146848.D	12/04/2015	15:58
	IC 240-209533/15	146849.D	12/04/2015	16:19
	IC 240-209533/16	146850.D	12/04/2015	16:41
	IC 240-209533/17	146851.D	12/04/2015	17:02
	IC 240-209533/18	146852.D	12/04/2015	17:24
	IC 240-209533/19	146853.D	12/04/2015	17:45
	IC 240-209533/20	146854.D	12/04/2015	18:07
	ICV 240-209533/21	146855.D	12/04/2015	18:28

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-211550/3	147120.D	12/18/2015	14:08
	CCV 240-211550/4	147121.D	12/18/2015	14:29
	LCS 240-211550/5	147122.D	12/18/2015	14:51
	MB 240-211550/6	147123.D	12/18/2015	15:12
	LCS 240-211550/7	147124.D	12/18/2015	15:34
D-SD-WC-1	240-59150-1	147141.D	12/18/2015	21:39

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: ICIS 240-209533/6 Date Analyzed: 12/04/2015 13:06

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 146840.D Heated Purge: (Y/N) Y

Calibration ID: 31924

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		2531032	6.64	1497194	9.36	732024	11.34
UPPER LIMIT		5062064	7.14	2994388	9.86	1464048	11.84
LOWER LIMIT		1265516	6.14	748597	8.86	366012	10.84
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-209533/21		2528152	6.64	1511963	9.36	729054	11.34
CCVIS 240-211550/3		2589503	6.64	1548644	9.36	727326	11.34

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCVIS 240-211550/3 Date Analyzed: 12/18/2015 14:08

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 147120.D Heated Purge: (Y/N) Y

Calibration ID: 31926

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		2589503	6.64	1548644	9.36	727326	11.34
UPPER LIMIT		5179006	7.14	3097288	9.86	1454652	11.84
LOWER LIMIT		1294752	6.14	774322	8.86	363663	10.84
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211550/4		2832389	6.64	1648181	9.36	803662	11.34
LCS 240-211550/5		2697799	6.64	1637657	9.36	813120	11.34
MB 240-211550/6		2680914	6.64	1541560	9.36	794155	11.34
LCS 240-211550/7		2959941	6.64	1685445	9.36	811775	11.34
240-59150-1	D-SD-WC-1	2410295	6.64	1248430	9.36	463135	11.34

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: 147141.D

Analysis Method: 8260C | Date Collected: 12/15/2015 14:00

Sample wt/vol: 5.05(g) | Date Analyzed: 12/18/2015 21:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 24.6 | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.66	U	6.6	0.66
71-55-6	1,1,1-Trichloroethane	0.85	U	6.6	0.85
79-34-5	1,1,2,2-Tetrachloroethane	0.41	U	6.6	0.41
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.55	U	6.6	0.55
75-34-3	1,1-Dichloroethane	0.45	U	6.6	0.45
75-35-4	1,1-Dichloroethene	1.1	U	6.6	1.1
563-58-6	1,1-Dichloropropene	0.49	U	6.6	0.49
87-61-6	1,2,3-Trichlorobenzene	0.66	U	6.6	0.66
96-18-4	1,2,3-Trichloropropane	1.0	U	6.6	1.0
526-73-8	1,2,3-Trimethylbenzene	0.60	U	6.6	0.60
120-82-1	1,2,4-Trichlorobenzene	0.50	U	6.6	0.50
95-63-6	1,2,4-Trimethylbenzene	0.76	U	6.6	0.76
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	13	3.6
95-50-1	1,2-Dichlorobenzene	0.45	U	6.6	0.45
107-06-2	1,2-Dichloroethane	0.60	U	6.6	0.60
78-87-5	1,2-Dichloropropane	0.18	U	6.6	0.18
541-73-1	1,3-Dichlorobenzene	0.91	U	6.6	0.91
142-28-9	1,3-Dichloropropane	0.53	U	6.6	0.53
106-46-7	1,4-Dichlorobenzene	0.37	U	6.6	0.37
594-20-7	2,2-Dichloropropane	0.58	U	6.6	0.58
78-93-3	2-Butanone (MEK)	52		26	1.5
110-75-8	2-Chloroethyl vinyl ether	0.84	U	66	0.84
95-49-8	2-Chlorotoluene	0.39	U	6.6	0.39
591-78-6	2-Hexanone	0.89	U	26	0.89
106-43-4	4-Chlorotoluene	0.34	U	6.6	0.34
99-87-6	p-Isopropyltoluene	0.54	U	6.6	0.54
108-10-1	4-Methyl-2-pentanone (MIBK)	1.6	U	26	1.6
67-64-1	Acetone	210	B	26	7.5
71-43-2	Benzene	1.2	U	6.6	1.2
108-86-1	Bromobenzene	0.43	U	6.6	0.43
75-25-2	Bromoform	0.32	U	6.6	0.32
74-83-9	Bromomethane	0.55	U	6.6	0.55
75-15-0	Carbon disulfide	11		6.6	0.78
56-23-5	Carbon tetrachloride	0.85	U	6.6	0.85
108-90-7	Chlorobenzene	0.70	U	6.6	0.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: 147141.D

Analysis Method: 8260C | Date Collected: 12/15/2015 14:00

Sample wt/vol: 5.05(g) | Date Analyzed: 12/18/2015 21:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 24.6 | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.49	U	6.6	0.49
75-00-3	Chloroethane	0.58	U	6.6	0.58
67-66-3	Chloroform	0.47	U	6.6	0.47
74-87-3	Chloromethane	1.0	U	6.6	1.0
156-59-2	cis-1,2-Dichloroethene	0.37	U	6.6	0.37
10061-01-5	cis-1,3-Dichloropropene	0.93	U	6.6	0.93
74-95-3	Dibromomethane	0.55	U	6.6	0.55
74-97-5	Bromochloromethane	0.43	U	6.6	0.43
75-71-8	Dichlorodifluoromethane	0.37	U	6.6	0.37
75-27-4	Bromodichloromethane	0.38	U	6.6	0.38
75-65-0	tert-Butyl alcohol (TBA)	7.5	U	260	7.5
100-41-4	Ethylbenzene	0.42	U	6.6	0.42
87-68-3	Hexachlorobutadiene	0.53	U	6.6	0.53
108-20-3	Diisopropyl ether	0.78	U	13	0.78
98-82-8	Isopropylbenzene	0.26	U	6.6	0.26
1634-04-4	Methyl tert-butyl ether	0.56	U	6.6	0.56
75-09-2	Methylene Chloride	0.97	U	6.6	0.97
179601-23-1	m-Xylene & p-Xylene	0.55	U	13	0.55
91-20-3	Naphthalene	2.0	J B	6.6	0.46
104-51-8	n-Butylbenzene	0.78	U	6.6	0.78
103-65-1	N-Propylbenzene	0.79	U	6.6	0.79
95-47-6	o-Xylene	0.75	U	6.6	0.75
135-98-8	sec-Butylbenzene	1.2	U	6.6	1.2
100-42-5	Styrene	0.53	U	6.6	0.53
994-05-8	Tert-amyl methyl ether	0.56	U	6.6	0.56
637-92-3	Ethyl t-butyl ether	0.54	U	6.6	0.54
127-18-4	Tetrachloroethene	1.1	U	6.6	1.1
108-88-3	Toluene	0.35	U	6.6	0.35
156-60-5	trans-1,2-Dichloroethene	0.42	U	6.6	0.42
10061-02-6	trans-1,3-Dichloropropene	0.38	U	6.6	0.38
79-01-6	Trichloroethene	0.50	U	6.6	0.50
75-69-4	Trichlorofluoromethane	0.38	U	6.6	0.38
108-05-4	Vinyl acetate	0.87	U	13	0.87
75-01-4	Vinyl chloride	0.39	U	6.6	0.39
1330-20-7	Xylenes, Total	0.71	U	13	0.71
98-06-6	tert-Butylbenzene	0.88	U	6.6	0.88

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: 147141.D

Analysis Method: 8260C | Date Collected: 12/15/2015 14:00

Sample wt/vol: 5.05(g) | Date Analyzed: 12/18/2015 21:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 24.6 | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.70	U	6.6	0.70

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		67-125
1868-53-7	Dibromofluoromethane (Surr)	92		37-132
460-00-4	4-Bromofluorobenzene (Surr)	104		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		58-123

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-209533/11	146845.D
Level 2	IC 240-209533/10	146844.D
Level 3	IC 240-209533/9	146843.D
Level 4	IC 240-209533/8	146842.D
Level 5	IC 240-209533/7	146841.D
Level 6	ICIS 240-209533/6	146840.D
Level 7	IC 240-209533/5	146839.D
Level 8	IC 240-209533/4	146838.D
Level 9	IC 240-209533/3	146837.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2366 0.3108	0.2476 0.3242	0.2984 0.3259	0.3116 0.3159	0.2959	Ave		0.2963			0.1000	11.0		15.0			
Chloromethane	0.3574 0.3216	0.3214 0.3424	0.2798 0.3297	0.3327 0.3192	0.3109	Ave		0.3239			0.1000	6.7		15.0			
Vinyl chloride	0.2427 0.2799	0.2517 0.2825	0.2635 0.2820	0.2865 0.2657	0.2627	Ave		0.2686			0.1000	5.7		15.0			
Butadiene	0.2637 0.3082	0.2416 0.3138	0.2705 0.3067	0.3032 0.2915	0.2898	Ave		0.2877				8.4		15.0			
Bromomethane	0.1647 0.1441	0.1583 0.1098	0.1619 +++++	0.1579 +++++	0.1418	Ave		0.1483			0.0500	12.9		15.0			
Chloroethane	0.1797 0.1603	0.1366 0.1605	0.1350 0.1435	0.1605 0.1238	0.1528	Ave		0.1503				11.4		15.0			
Dichlorofluoromethane	0.3579 0.3681	0.3579 0.3847	0.3269 0.3770	0.3745 0.3625	0.3630	Ave		0.3636				4.5		15.0			
Trichlorofluoromethane	0.2541 0.3877	0.2972 0.4130	0.3434 0.4061	0.3762 0.3947	0.3747	Ave		0.3608			0.1000	14.8		15.0			
Ethyl ether	0.1574 0.1736	0.1756 0.1822	0.1711 0.1717	0.1724 0.1631	0.1688	Ave		0.1706				4.2		15.0			
Acrolein	0.0299 0.0251	0.0251 0.0263	0.0246 0.0243	0.0253 0.0232	0.0260	Ave		0.0255				7.4		15.0			
1,1-Dichloroethene	0.2207 0.2417	0.2251 0.2358	0.2254 0.2432	0.2453 0.2142	0.2048	Ave		0.2284			0.1000	6.1		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1145 0.1896	0.1637 0.1907	0.1745 0.1888	0.1986 0.1786	0.1711	Ave		0.1744			0.0500	14.4		15.0			
Acetone	+++++ 0.0661	+++++ 0.0663	0.0846 0.0616	0.0702 0.0543	0.0665	Ave		0.0671			0.0500	13.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Iodomethane	0.3245 0.3172	0.3130 0.3354	0.3036 0.3269	0.3270 0.3162	0.3037	Ave		0.3186				3.4		15.0			
Carbon disulfide	+++++ 0.6726	0.4937 0.7376	0.5526 0.7392	0.6203 0.7210	0.5919	Ave		0.6411			0.1000	14.3		15.0			
3-Chloro-1-propene	0.0953 0.1366	0.1107 0.1494	0.1242 0.1496	0.1306 0.1437	0.1275	Ave		0.1297				13.9		15.0			
Methyl acetate	0.1096 0.1214	0.1300 0.1303	0.1111 0.1226	0.1174 0.1145	0.1186	Ave		0.1195			0.1000	6.2		15.0			
Methylene Chloride	+++++ 0.2531	+++++ 0.2581	0.3417 0.2475	0.3094 0.2332	0.2615	Ave		0.2721			0.1000	14.2		15.0			
tert-Butyl alcohol (TBA)	0.0143 0.0173	0.0189 0.0185	0.0152 0.0162	0.0170 0.0156	0.0173	Ave		0.0167				9.1		15.0			
trans-1,2-Dichloroethene	0.2611 0.2618	0.2416 0.2744	0.2442 0.2663	0.2675 0.2565	0.2398	Ave		0.2570			0.1000	4.8		15.0			
Methyl tert-butyl ether	0.5123 0.5787	0.5543 0.6211	0.5331 0.5952	0.5457 0.5594	0.5430	Ave		0.5603			0.1000	5.9		15.0			
Acrylonitrile	0.0551 0.0619	0.0609 0.0644	0.0583 0.0596	0.0607 0.0549	0.0600	Ave		0.0595				5.1		15.0			
Hexane	0.0679 0.0693	0.0731 0.0733	0.0691 0.0734	0.0709 0.0701	0.0670	Ave		0.0704				3.4		15.0			
1,1-Dichloroethane	0.4643 0.4883	0.4619 0.5163	0.4543 0.5132	0.4896 0.4954	0.4524	Ave		0.4817			0.1000	5.1		15.0			
Vinyl acetate	+++++ 0.0329	0.0266 0.0353	0.0249 0.0338	0.0264 0.0327	0.0307	Ave		0.0304				12.9		15.0			
2,2-Dichloropropane	0.2056 0.3024	0.2194 0.3120	0.2414 0.2975	0.2944 0.2865	0.2764	Ave		0.2706				14.3		15.0			
cis-1,2-Dichloroethene	0.2454 0.2717	0.2503 0.2878	0.2494 0.2778	0.2646 0.2640	0.2510	Ave		0.2625			0.1000	5.6		15.0			
2-Butanone (MEK)	0.0747 0.0775	0.0754 0.0803	0.0699 0.0772	0.0721 0.0694	0.0716	Ave		0.0742			0.0500	5.0		15.0			
Bromochloromethane	0.0880 0.1026	0.1103 0.1091	0.0989 0.1055	0.0978 0.0999	0.1010	Ave		0.1015				6.6		15.0			
Tetrahydrofuran	0.0473 0.0468	0.0561 0.0505	0.0468 0.0468	0.0439 0.0425	0.0462	Ave		0.0474				8.3		15.0			
Chloroform	0.5604 0.4577	0.4919 0.4789	0.4274 0.4732	0.4632 0.4652	0.4288	Ave		0.4719				8.4		15.0			
1,1,1-Trichloroethane	0.3072 0.3906	0.3253 0.4210	0.3483 0.4176	0.3547 0.4050	0.3516	Ave		0.3690			0.1000	11.1		15.0			
Cyclohexane	+++++ 0.5079	0.3895 0.5256	0.4518 0.5076	0.5035 0.4791	0.4647	Ave		0.4787			0.1000	9.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Carbon tetrachloride	+++++ 0.3030	0.2147 0.3305	0.2561 0.3352	0.2807 0.3275	0.2666	Ave		0.2893			0.1000	14.7		15.0			
1,1-Dichloropropene	0.2609 0.3450	0.2979 0.3648	0.3052 0.3545	0.3359 0.3430	0.3149	Ave		0.3247				10.1		15.0			
Benzene	0.8809 0.9718	0.9275 1.0353	0.9200 1.0234	0.9477 0.9861	0.9417	Ave		0.9594			0.5000	5.2		15.0			
Isobutyl alcohol	0.0037 0.0055	0.0047 0.0059	0.0052 0.0051	0.0057 0.0045	0.0054	Ave		0.0051				13.2		15.0			
1,2-Dichloroethane	0.3169 0.3216	0.3373 0.3368	0.3113 0.3343	0.3136 0.3170	0.3004	Ave		0.3210			0.1000	4.0		15.0			
n-Heptane	+++++ 0.0695	+++++ 0.0769	0.0592 0.0761	0.0658 0.0735	0.0725	Ave		0.0705				8.9		15.0			
Trichloroethene	0.2420 0.2364	0.2356 0.2522	0.2224 0.2459	0.2432 0.2406	0.2279	Ave		0.2385			0.2000	3.8		15.0			
Methylcyclohexane	+++++ 0.5020	0.3397 0.5306	0.4316 0.5134	0.4929 0.4972	0.4611	Ave		0.4711			0.1000	13.0		15.0			
1,2-Dichloropropane	0.2020 0.2295	0.2225 0.2394	0.2215 0.2375	0.2254 0.2317	0.2114	Ave		0.2245			0.1000	5.4		15.0			
Dibromomethane	0.0936 0.1101	0.1197 0.1175	0.1041 0.1122	0.1043 0.1078	0.1035	Ave		0.1081				7.4		15.0			
1,4-Dioxane	0.0019 0.0014	0.0017 0.0016	0.0018 0.0015	0.0016 0.0013	0.0016	Ave		0.0016				12.0		15.0			
Bromodichloromethane	+++++ 0.2837	+++++ 0.3204	0.2331 0.3245	0.2438 0.3168	0.2488	Ave		0.2816			0.1000	14.1		15.0			
2-Chloroethyl vinyl ether	0.0539 0.0677	0.0582 0.0770	0.0556 0.0782	0.0596 0.0752	0.0653	Ave		0.0656				14.4		15.0			
cis-1,3-Dichloropropene	+++++ 0.3126	+++++ 0.3434	0.2330 0.3487	0.2649 0.3428	0.2854	Ave		0.3044			0.1500	14.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.2527 0.2636	0.2419 0.2856	0.2529 0.2606	0.2635 0.2286	0.2586	Ave		0.2564			0.0500	6.1		15.0			
Toluene	1.4508 1.6441	1.5184 1.7809	1.5290 1.7492	1.6631 1.6411	1.5909	Ave		1.6186			0.4000	6.7		15.0			
trans-1,3-Dichloropropene	+++++ 0.4013	+++++ 0.4475	0.3120 0.4569	0.3457 0.4323	0.3676	Ave		0.3948			0.1000	13.9		15.0			
Ethyl methacrylate	0.2573 0.2915	0.2690 0.3235	0.2662 0.3075	0.2797 0.2821	0.3008	Ave		0.2864				7.5		15.0			
1,1,2-Trichloroethane	0.2582 0.2464	0.2656 0.2699	0.2409 0.2534	0.2505 0.2364	0.2488	Ave		0.2522			0.1000	4.3		15.0			
Tetrachloroethene	0.2564 0.2940	0.2642 0.3133	0.2888 0.3000	0.3075 0.2848	0.2805	Ave		0.2877			0.2000	6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,3-Dichloropropane	0.5047 0.4467	0.3702 0.4689	0.4308 0.4551	0.4597 0.4309	0.4391	Ave		0.4451				8.1		15.0			
2-Hexanone	0.1780 0.1738	0.1726 0.1780	0.1659 0.1618	0.1772 0.1455	0.1766	Ave		0.1699			0.0500	6.4		15.0			
Dibromochloromethane	+++++ 0.2504	+++++ 0.2848	0.2018 0.2850	0.2120 0.2686	0.2167	Ave		0.2456				14.4		15.0			
1,2-Dibromoethane	0.1786 0.2331	0.2066 0.2553	0.2299 0.2447	0.2331 0.2278	0.2373	Ave		0.2274				9.9		15.0			
Chlorobenzene	1.0089 0.9968	1.0496 1.0862	0.9830 1.0773	1.0220 0.9998	0.9907	Ave		1.0238			0.3000	3.7		15.0			
1,1,1,2-Tetrachloroethane	0.2699 0.3212	0.2577 0.3480	0.2840 0.3294	0.2928 0.3186	0.2894	Ave		0.3012				9.9		15.0			
Ethylbenzene	0.4971 0.5560	0.5195 0.5936	0.5236 0.5286	0.5291 0.5247	0.5434	Ave		0.5351				5.1		15.0			
m-Xylene & p-Xylene	0.5735 0.6726	0.6276 0.7292	0.6566 0.7151	0.6932 0.6727	0.6528	Ave		0.6659				7.0		15.0			
o-Xylene	0.4921 0.7075	0.5529 0.7327	0.6199 0.6998	0.6935 0.6446	0.6575	Ave		0.6445				12.2		15.0			
Styrene	0.8908 1.0336	0.8670 1.1182	0.8747 1.0967	0.9926 1.0223	0.9873	Ave		0.9870			0.3000	9.4		15.0			
Bromoform	0.1098 0.1253	0.0920 0.1494	0.0955 0.1503	0.1019 0.1401	0.1069	Lin1	-0.114	0.1430			0.1000				0.9940		0.9900
Isopropylbenzene	1.4055 1.9761	1.5292 2.1407	1.7342 2.0048	1.9084 1.7425	1.8575	Ave		1.8110			0.1000	12.9		15.0			
Bromobenzene	0.6261 0.7495	0.7054 0.7890	0.6766 0.7615	0.7303 0.7159	0.6902	Ave		0.7161				6.8		15.0			
1,1,2,2-Tetrachloroethane	0.5639 0.6205	0.6303 0.6660	0.5727 0.5976	0.5866 0.5355	0.5984	Ave		0.5968			0.3000	6.5		15.0			
1,2,3-Trichloropropane	0.1627 0.1838	0.1645 0.1882	0.1584 0.1795	0.1853 0.1630	0.1772	Ave		0.1736				6.6		15.0			
trans-1,4-Dichloro-2-butene	0.2237 0.1881	0.2161 0.2118	0.1697 0.2121	0.1762 0.1899	0.1813	Ave		0.1965				10.0		15.0			
N-Propylbenzene	0.6946 0.9785	0.7608 1.0410	0.8372 1.0174	0.9499 0.9374	0.9307	Ave		0.9053				12.9		15.0			
2-Chlorotoluene	0.6355 0.8031	0.7433 0.8663	0.7634 0.8300	0.7505 0.7773	0.7681	Ave		0.7708				8.4		15.0			
1,3,5-Trimethylbenzene	+++++ 3.3613	2.4811 3.6554	2.7501 3.5532	3.1587 3.2784	3.0463	Ave		3.1606				12.5		15.0			
4-Chlorotoluene	0.6807 0.7658	0.6358 0.8368	0.7289 0.8188	0.7970 0.7675	0.7561	Ave		0.7542				8.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
tert-Butylbenzene	+++++ 2.8391	2.1307 3.1549	2.3196 3.0240	2.6960 2.7607	2.6087	Ave		2.6917				12.7		15.0			
1,2,4-Trimethylbenzene	2.4419 3.4045	2.6688 3.6188	2.8711 3.5714	3.2958 3.2939	3.1075	Ave		3.1415				12.9		15.0			
sec-Butylbenzene	+++++ 4.4364	3.1582 4.8132	3.7021 4.6045	4.2331 4.0618	3.9351	Ave		4.1181				12.9		15.0			
1,3-Dichlorobenzene	1.3391 1.3735	1.4418 1.4677	1.3602 1.4192	1.4148 1.3188	1.3387	Ave		1.3860			0.6000	3.7		15.0			
p-Isopropyltoluene	+++++ 3.4934	2.4172 3.7948	2.9038 3.6156	3.2951 3.2919	3.1858	Ave		3.2497				13.3		15.0			
1,4-Dichlorobenzene	1.5343 1.3841	1.4025 1.4655	1.4056 1.4446	1.4260 1.3342	1.3332	Ave		1.4144			0.5000	4.5		15.0			
n-Butylbenzene	+++++ 3.3186	2.5883 3.6193	2.8247 3.5877	3.2073 3.2205	3.1216	Ave		3.1860				11.0		15.0			
1,2-Dichlorobenzene	1.4285 1.3430	1.3584 1.4228	1.2411 1.3651	1.3720 1.2446	1.2941	Ave		1.3411			0.4000	5.1		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0939	0.0878 0.1041	0.0759 0.1027	0.0785 0.0882	0.0838	Ave		0.0894			0.0500	11.6		15.0			
1,2,4-Trichlorobenzene	1.0651 1.0094	0.8906 1.0536	0.9927 0.9985	1.0254 0.9070	0.9475	Ave		0.9878			0.2000	6.2		15.0			
Hexachlorobutadiene	0.4285 0.6510	0.6433 0.6933	0.6290 0.6580	0.6781 0.5941	0.6131	Ave		0.6209				12.6		15.0			
Naphthalene	1.7379 2.1362	1.7923 2.2541	1.9115 2.0586	2.0896 1.8279	2.0526	Ave		1.9845				8.8		15.0			
1,2,3-Trichlorobenzene	0.8844 0.9206	0.9904 0.9936	0.9616 0.9027	0.9826 0.8039	0.9005	Ave		0.9267				6.7		15.0			
Dibromofluoromethane (Surr)	+++++ 0.2289	+++++ 0.2272	0.3679 0.2201	0.2903 0.2180	0.2509	Lin1	0.7469	0.2161							1.0000		0.9900
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2741	+++++ 0.2854	0.4712 0.2779	0.3704 0.2813	0.3303	Lin1	0.9538	0.2742							0.9990		0.9900
Toluene-d8 (Surr)	+++++ 1.5233	+++++ 1.5940	2.4072 1.5814	2.0116 1.5077	1.7679	Lin1	4.5226	1.5191							0.9990		0.9900
4-Bromofluorobenzene (Surr)	+++++ 1.0561	+++++ 1.0989	1.7577 1.1312	1.4704 1.0757	1.2667	Lin1	3.4199	1.0752							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-209533/11	146845.D
Level 2	IC 240-209533/10	146844.D
Level 3	IC 240-209533/9	146843.D
Level 4	IC 240-209533/8	146842.D
Level 5	IC 240-209533/7	146841.D
Level 6	ICIS 240-209533/6	146840.D
Level 7	IC 240-209533/5	146839.D
Level 8	IC 240-209533/4	146838.D
Level 9	IC 240-209533/3	146837.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dichlorodifluoromethane	FB	Ave	11361 786650	23755 1576384	74157 3129503	150046 3756088	306123	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chloromethane	FB	Ave	17166 813973	30842 1664633	69545 3166016	160243 3795031	321598	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl chloride	FB	Ave	11656 708410	24150 1373446	65484 2707677	137955 3158598	271721	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Butadiene	FB	Ave	12666 780018	23180 1525784	67219 2945339	146011 3466182	299751	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromomethane	FB	Ave	7909 364731	15187 533908	40231 +++++	76023 +++++	146679	1.00 50.0	2.00 100	5.00 +++++	10.0 +++++	20.0
Chloroethane	FB	Ave	8628 405785	13106 780313	33555 1378278	77295 1471405	158031	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dichlorofluoromethane	FB	Ave	17186 931787	34347 1870559	81249 3620078	180365 4309683	375517	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Trichlorofluoromethane	FB	Ave	12201 981348	28514 2008122	85333 3899614	181189 4693263	387645	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethyl ether	FB	Ave	7558 439348	16846 885744	42519 1648409	83019 1939379	174607	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrolein	FB	Ave	7184 317611	12054 638287	30574 1168012	60968 1377666	134550	5.00 250	10.0 500	25.0 1000	50.0 1250	100
1,1-Dichloroethene	FB	Ave	10599 611718	21598 1146392	56015 2334874	118111 2546648	211833	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	5498 479940	15712 927193	43359 1812447	95633 2122940	177042	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acetone	FB	Ave	+++++ 334704	+++++ 644727	42033 1182973	67609 1292247	137578	+++++ 100	+++++ 200	10.0 400	20.0 500	40.0
Iodomethane	FB	Ave	15583 802849	30035 1630858	75446 3139007	157465 3759930	314181	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Carbon disulfide	FB	Ave	+++++ 1702342	47376 3586169	137339 7097635	298707 8573102	612246	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
3-Chloro-1-propene	FB	Ave	4577 345637	10620 726329	30863 1436555	62908 1708628	131914	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl acetate	FB	Ave	26316 1536862	62396 3166643	138068 5887157	282731 6809873	613351	5.00 250	10.0 500	25.0 1000	50.0 1250	100
Methylene Chloride	FB	Ave	+++++ 640571	+++++ 1254875	84915 2376438	148992 2772966	270529	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
tert-Butyl alcohol (TBA)	FB	Ave	6877 437636	18110 897885	37705 1552841	81723 1850384	179422	10.0 500	20.0 1000	50.0 2000	100 2500	200
trans-1,2-Dichloroethene	FB	Ave	12537 662563	23186 1334029	60698 2556711	128836 3050211	248090	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl tert-butyl ether	FB	Ave	24605 1464755	53186 3019802	132481 5715283	262777 6650617	561661	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Acrylonitrile	FB	Ave	26480 1566777	58401 3131231	144993 5727127	292272 6525717	620662	10.0 500	20.0 1000	50.0 2000	100 2500	200
Hexane	FB	Ave	3259 175291	7014 356193	17178 705221	34132 832895	69276	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1-Dichloroethane	FB	Ave	22300 1235825	44327 2510049	112902 4928292	235775 5889975	467989	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Vinyl acetate	FB	Ave	+++++ 83264	2552 171726	6199 324325	12713 388919	31760	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
2,2-Dichloropropane	FB	Ave	9875 765493	21055 1516870	60001 2856373	141785 3406371	285926	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
cis-1,2-Dichloroethene	FB	Ave	11786 687760	24016 1399528	61976 2667366	127441 3139127	259625	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Butanone (MEK)	FB	Ave	7172 392555	14469 780529	34759 1482132	69407 1651259	148174	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Bromochloromethane	FB	Ave	4227 259690	10584 530370	24585 1012967	47112 1188134	104473	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrahydrofuran	FB	Ave	4543 236979	10771 490829	23271 898288	42276 1010769	95653	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Chloroform	FB	Ave	26911 1158424	47205 2328455	106225 4543930	223058 5531036	443550	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1-Trichloroethane	FB	Ave	14754 988502	31211 2047010	86570 4010074	170805 4815806	363725	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Cyclohexane	FB	Ave	+++++ 1285439	37371 2555522	112284 4874447	242474 5696029	480720	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
Carbon tetrachloride	FB	Ave	+++++ 766927	20603 1606717	63649 3218854	135197 3893761	275819	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1-Dichloropropene	FB	Ave	12529 873160	28590 1773896	75850 3403532	161780 4078414	325716	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzene	FB	Ave	42303 2459603	89004 5033677	228647 9826829	456401 11724724	974098	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isobutyl alcohol	FB	Ave	4474 347703	11333 717290	32033 1231494	68585 1342878	140256	25.0 1250	50.0 2500	125 5000	250 6250	500
1,2-Dichloroethane	FB	Ave	15217 813886	32365 1637350	77367 3209813	151033 3769202	310700	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Heptane	FB	Ave	+++++ 176011	+++++ 374066	14723 731132	31699 874100	75008	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Trichloroethene	FB	Ave	11621 598356	22612 1226399	55276 2360964	117139 2860447	235771	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methylcyclohexane	FB	Ave	+++++ 1270654	32600 2579877	107263 4929676	237358 5911922	476981	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichloropropane	FB	Ave	9701 580866	21353 1164057	55041 2280222	108549 2754724	218649	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromomethane	FB	Ave	4493 278767	11485 571142	25875 1077125	50213 1281126	107073	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dioxane	FB	Ave	1856 71134	3180 154189	8949 281497	14963 313772	32472	20.0 1000	40.0 2000	100 4000	200 5000	400
Bromodichloromethane	FB	Ave	+++++ 718030	+++++ 1557909	57918 3116121	117429 3767119	257409	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
2-Chloroethyl vinyl ether	FB	Ave	5180 342860	11175 748887	27628 1501604	57447 1787500	135026	2.00 100	4.00 200	10.0 400	20.0 500	40.0
cis-1,3-Dichloropropene	FB	Ave	+++++ 791216	+++++ 1669612	57910 3348129	127580 4075839	295235	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	13516 789212	26886 1610780	70864 2972075	144635 3331312	314898	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Toluene	CBZ	Ave	38794 2461471	84375 5022418	214220 9976042	456359 11959129	968505	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,3-Dichloropropene	CBZ	Ave	+++++ 600846	+++++ 1261957	43713 2606097	94865 3149965	223808	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Ethyl methacrylate	CBZ	Ave	6881 436444	14946 912214	37302 1753831	76757 2055438	183113	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2-Trichloroethane	CBZ	Ave	6903 368966	14760 761134	33744 1445319	68739 1722593	151466	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Tetrachloroethene	CBZ	Ave	6856 440111	14684 883467	40463 1711089	84370 2075443	170746	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichloropropane	CBZ	Ave	13496 668825	20570 1322542	60351 2595544	126135 3139793	267334	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Hexanone	CBZ	Ave	9520 520572	19186 1003812	46473 1845504	97271 2119935	214983	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Dibromochloromethane	CBZ	Ave	+++++ 374863	+++++ 803195	28271 1625391	58163 1957310	131906	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dibromoethane	CBZ	Ave	4775 348949	11483 719886	32203 1395762	63971 1660029	144432	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Chlorobenzene	CBZ	Ave	26977 1492427	58325 3063296	137722 6144197	280422 7285860	603101	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	7216 480858	14319 981478	39786 1878473	80357 2321868	176186	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethylbenzene	CBZ	Ave	13291 832506	28866 1674181	73359 3014544	145180 3823509	330789	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
m-Xylene & p-Xylene	CBZ	Ave	15335 1007074	34877 2056479	91984 4078198	190205 4901950	397428	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
o-Xylene	CBZ	Ave	13158 1059303	30725 2066355	86855 3991070	190297 4697557	400255	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Styrene	CBZ	Ave	23820 1547540	48178 3153690	122554 6254870	272360 7450039	601009	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromoform	CBZ	Lin1	2936 187611	5113 421254	13384 856989	27949 1020941	65106	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Isopropylbenzene	CBZ	Ave	37582 2958559	84978 6037322	242966 11434235	523663 12697844	1130747	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Bromobenzene	DCB	Ave	8994 548635	20291 1084490	48864 2067625	102442 2482956	209929	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	8101 454247	18132 915347	41361 1622709	82285 1857354	181991	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichloropropane	DCB	Ave	2337 134578	4733 258706	11440 487301	25992 565308	53883	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	3214 137658	6217 291125	12254 575832	24717 658548	55141	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
N-Propylbenzene	DCB	Ave	9978 716295	21884 1430865	60463 2762367	133232 3251211	283051	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Chlorotoluene	DCB	Ave	9129 587910	21380 1190754	55134 2253596	105263 2696109	233623	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trimethylbenzene	DCB	Ave	+++++ 2460561	71368 5024161	198609 9647876	443063 11370942	926500	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
4-Chlorotoluene	DCB	Ave	9779 560603	18289 1150103	52644 2223324	111794 2661990	229953	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
tert-Butylbenzene	DCB	Ave	+++++ 2078267	61289 4336278	167518 8210916	378152 9575279	793418	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trimethylbenzene	DCB	Ave	35080 2492183	76768 4973828	207348 9697258	462292 11424447	945123	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
sec-Butylbenzene	DCB	Ave	+++++ 3247587	90847 6615484	267365 12502189	593759 14087883	1196820	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3-Dichlorobenzene	DCB	Ave	19237 1005403	41475 2017275	98229 3853533	198449 4574106	407157	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 12:02 Calibration End Date: 12/04/2015 14:53 Calibration ID: 31924

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
p-Isopropyltoluene	DCB	Ave	+++++ 2557233	69530 5215794	209710 9817203	462192 11417515	968921	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,4-Dichlorobenzene	DCB	Ave	22041 1013203	40344 2014247	101509 3922419	200021 4627650	405473	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butylbenzene	DCB	Ave	+++++ 2429325	74454 4974612	203997 9741591	449867 11170125	949391	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dichlorobenzene	DCB	Ave	20521 983100	39074 1955575	89628 3706687	192439 4316651	393593	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 68725	2525 143014	5478 278951	11017 305946	25478	+++++ 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,4-Trichlorobenzene	DCB	Ave	15301 738874	25618 1448061	71694 2711250	143826 3145807	288181	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Hexachlorobutadiene	DCB	Ave	6156 476583	18504 952929	45426 1786626	95119 2060698	186472	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Naphthalene	DCB	Ave	24966 1563772	51557 3098191	138047 5589519	293092 6339766	624279	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,2,3-Trichlorobenzene	DCB	Ave	12705 673892	28489 1365709	69446 2451075	137829 2788230	273868	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Dibromofluoromethane (Surr)	FB	Lin1	+++++ 579364	+++++ 1104582	91422 2113908	139810 2592459	259579	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Lin1	+++++ 693647	+++++ 1387695	117105 2668302	178389 3344361	341689	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
Toluene-d8 (Surr)	CBZ	Lin1	+++++ 2280615	+++++ 4495454	337259 9019534	551966 10987470	1076218	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0
4-Bromofluorobenzene (Surr)	DCB	Lin1	+++++ 773111	+++++ 1510441	126942 3071368	206245 3731122	385240	+++++ 50.0	+++++ 100	5.00 200	10.0 250	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 15:15 Calibration End Date: 12/04/2015 18:07 Calibration ID: 31926

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-209533/20	146854.D
Level 2	IC 240-209533/19	146853.D
Level 3	IC 240-209533/18	146852.D
Level 4	IC 240-209533/17	146851.D
Level 5	IC 240-209533/16	146850.D
Level 6	IC 240-209533/15	146849.D
Level 7	IC 240-209533/14	146848.D
Level 8	IC 240-209533/13	146847.D
Level 9	IC 240-209533/12	146846.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acetonitrile	0.0217 0.0178	0.0211 0.0203	0.0188 0.0179	0.0194 0.0197	0.0178	Ave		0.0194				7.5		15.0			
2-Chloro-1,3-butadiene	0.4197 0.4651	0.3861 0.5276	0.4261 0.4797	0.4497 0.4961	0.4412	Ave		0.4546				9.4		15.0			
Diisopropyl ether	0.2250 0.1934	0.1971 0.2141	0.1871 0.1859	0.1893 0.1914	0.1885	Ave		0.1969				6.9		15.0			
Ethyl t-butyl ether	0.6013 0.6809	0.5915 0.7788	0.6358 0.7053	0.6708 0.7390	0.6629	Ave		0.6740				9.1		15.0			
Ethyl acetate	0.1303 0.1376	0.1344 0.1567	0.1409 0.1342	0.1412 0.1488	0.1298	Ave		0.1393				6.3		15.0			
Propionitrile	0.0243 0.0216	0.0220 0.0242	0.0217 0.0209	0.0221 0.0227	0.0213	Ave		0.0223				5.5		15.0			
Methacrylonitrile	0.0942 0.0990	0.0922 0.1110	0.0945 0.0965	0.1013 0.1045	0.0979	Ave		0.0990				5.9		15.0			
Tert-amyl methyl ether	0.5118 0.5990	0.5522 0.6743	0.5551 0.5992	0.5797 0.6399	0.5649	Ave		0.5862				8.3		15.0			
n-Butanol	+++++ 0.0072	0.0064 0.0085	0.0078 0.0078	0.0071 0.0087	0.0068	Ave		0.0075				10.8		15.0			
Ethyl acrylate	0.1653 0.1799	0.1686 0.2060	0.1604 0.1788	0.1816 0.1989	0.1739	Ave		0.1793				8.4		15.0			
Methyl methacrylate	0.1321 0.1284	0.1251 0.1465	0.1279 0.1276	0.1210 0.1398	0.1193	Ave		0.1297				6.7		15.0			
2-Nitropropane	0.0317 0.0245	0.0327 0.0330	0.0248 0.0303	0.0233 0.0356	0.0231	Qua	0.0061	0.0249	0.0000195						0.9940		0.9900
n-Butyl acetate	0.5171 0.3691	0.4886 0.4212	0.4046 0.3690	0.4214 0.4017	0.3930	Ave		0.4206				12.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 15:15 Calibration End Date: 12/04/2015 18:07 Calibration ID: 31926

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1-Chlorohexane	0.4426 0.4529	0.4052 0.5238	0.4461 0.4793	0.4635 0.4905	0.4518	Ave		0.4618				7.3		15.0			
Cyclohexanone	+++++ 0.0092	0.0074 0.0107	0.0113 0.0095	0.0104 0.0102	0.0096	Ave		0.0098				11.9		15.0			
1,2,3-Trimethylbenzene	2.6932 3.1245	2.7768 3.5564	2.7478 3.3380	2.9128 3.3721	2.9190	Ave		3.0490				10.2		15.0			
1,3,5-Trichlorobenzene	1.0357 1.0413	1.0112 1.1692	1.0101 1.0354	0.9903 1.0277	1.0316	Ave		1.0392				4.9		15.0			
2-Methylnaphthalene	1.0266 1.3364	1.0182 1.5253	1.0295 1.3444	1.1612 1.3820	1.2420	Ave		1.2295				14.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 15:15 Calibration End Date: 12/04/2015 18:07 Calibration ID: 31926

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 240-209533/20	146854.D
Level 2	IC 240-209533/19	146853.D
Level 3	IC 240-209533/18	146852.D
Level 4	IC 240-209533/17	146851.D
Level 5	IC 240-209533/16	146850.D
Level 6	IC 240-209533/15	146849.D
Level 7	IC 240-209533/14	146848.D
Level 8	IC 240-209533/13	146847.D
Level 9	IC 240-209533/12	146846.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acetonitrile	FB	Ave	10699 461618	21153 995083	47153 1968464	97859 2538464	185680	10.0 500	20.0 1000	50.0 2000	100 2500	200
2-Chloro-1,3-butadiene	FB	Ave	20672 1206754	38735 2581359	106682 5280162	226868 6401080	460735	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Diisopropyl ether	FB	Ave	11084 501925	19770 1047568	46852 2046147	95513 2470057	196837	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethyl t-butyl ether	FB	Ave	29620 1766671	59343 3810270	159162 7763012	338404 9534253	692245	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Ethyl acetate	FB	Ave	12833 714139	26964 1532948	70547 2953342	142405 3839443	271015	2.00 100	4.00 200	10.0 400	20.0 500	40.0
Propionitrile	FB	Ave	11989 560572	22101 1185031	54237 2300514	111578 2930389	222941	10.0 500	20.0 1000	50.0 2000	100 2500	200
Methacrylonitrile	FB	Ave	46387 2569238	92474 5428649	236690 10616291	511042 13478692	1022516	10.0 500	20.0 1000	50.0 2000	100 2500	200
Tert-amyl methyl ether	FB	Ave	25212 1554145	55396 3299333	138977 6594951	292407 8255857	589984	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
n-Butanol	CBZ	Ave	+++++ 267212	9177 583307	27766 1139001	50585 1517537	99055	+++++ 1250	50.0 2500	125 5000	250 6250	500
Ethyl acrylate	FB	Ave	8143 466728	16915 1007910	40160 1967987	91600 2566010	181628	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
Methyl methacrylate	FB	Ave	13017 666096	25098 1433770	64034 2809822	122037 3607127	249073	2.00 100	4.00 200	10.0 400	20.0 500	40.0
2-Nitropropane	FB	Qua	3124 126968	6562 323204	12402 666826	23498 919318	48306	2.00 100	4.00 200	10.0 400	20.0 500	40.0
n-Butyl acetate	CBZ	Ave	14630 546384	28209 1158458	57364 2159564	120091 2818445	230598	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1-Chlorohexane	CBZ	Ave	12524 670565	23395 1440864	63256 2805411	132075 3441064	265086	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209533

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/04/2015 15:15 Calibration End Date: 12/04/2015 18:07 Calibration ID: 31926

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Cyclohexanone	CBZ	Ave	+++++ 135539	4293 294027	15962 558774	29618 715769	56376	+++++ 500	20.0 1000	50.0 2000	100 2500	200
1,2,3-Trimethylbenzene	DCB	Ave	38602 2319220	80455 4977175	198864 9865143	429475 11820107	873071	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
1,3,5-Trichlorobenzene	DCB	Ave	14845 772897	29299 1636220	73104 3059928	146014 3602196	308558	1.00 50.0	2.00 100	5.00 200	10.0 250	20.0
2-Methylnaphthalene	DCB	Ave	29429 1983931	59003 4269335	149019 7946801	342423 9688714	742960	2.00 100	4.00 200	10.0 400	20.0 500	40.0

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-209533/21 Calibration Date: 12/04/2015 18:28

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 12:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 14:53

Lab File ID: 146855.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2963	0.3021	0.1000	0.0204	0.0200	2.0	20.0
Chloromethane	Ave	0.3239	0.3243	0.1000	0.0200	0.0200	0.1	20.0
Vinyl chloride	Ave	0.2686	0.2680	0.1000	0.0200	0.0200	-0.2	20.0
Butadiene	Ave	0.2877	0.2839		0.0197	0.0200	-1.3	20.0
Bromomethane	Ave	0.1483	0.1443	0.0500	0.0195	0.0200	-2.7	20.0
Chloroethane	Ave	0.1503	0.1543	0.0500	0.0205	0.0200	2.7	20.0
Dichlorofluoromethane	Ave	0.3636	0.3425		0.0188	0.0200	-5.8	20.0
Trichlorofluoromethane	Ave	0.3608	0.3630	0.1000	0.0201	0.0200	0.6	20.0
Ethyl ether	Ave	0.1706	0.1643		0.0482	0.0500	-3.7	20.0
Acrolein	Ave	0.0255	0.0209		0.204	0.250	-18.3	20.0
1,1-Dichloroethene	Ave	0.2284	0.2290	0.1000	0.0501	0.0500	0.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1744	0.1692	0.0500	0.0485	0.0500	-3.0	20.0
Acetone	Ave	0.0671	0.0589	0.0500	0.0878	0.100	-12.2	20.0
Iodomethane	Ave	0.3186	0.3136		0.0492	0.0500	-1.6	20.0
Carbon disulfide	Ave	0.6411	0.6364	0.1000	0.0496	0.0500	-0.7	20.0
3-Chloro-1-propene	Ave	0.1297	0.1264		0.0487	0.0500	-2.5	20.0
Methyl acetate	Ave	0.1195	0.1231	0.1000	0.257	0.250	3.0	20.0
Methylene Chloride	Ave	0.2721	0.2463	0.1000	0.0453	0.0500	-9.5	20.0
tert-Butyl alcohol (TBA)	Ave	0.0167	0.0165		0.493	0.500	-1.4	20.0
trans-1,2-Dichloroethene	Ave	0.2570	0.2557	0.1000	0.0497	0.0500	-0.5	20.0
Methyl tert-butyl ether	Ave	0.5603	0.5556	0.1000	0.0496	0.0500	-0.8	20.0
Acrylonitrile	Ave	0.0595	0.0598		0.502	0.500	0.4	20.0
Hexane	Ave	0.0704	0.0671		0.0476	0.0500	-4.7	20.0
1,1-Dichloroethane	Ave	0.4817	0.4795	0.1000	0.0498	0.0500	-0.5	20.0
Vinyl acetate	Ave	0.0304	0.0261		0.0428	0.0500	-14.3	20.0
2,2-Dichloropropane	Ave	0.2706	0.2618		0.0484	0.0500	-3.3	20.0
cis-1,2-Dichloroethene	Ave	0.2625	0.2636	0.1000	0.0502	0.0500	0.5	20.0
2-Butanone (MEK)	Ave	0.0742	0.0699	0.0500	0.0941	0.100	-5.9	20.0
Bromochloromethane	Ave	0.1015	0.1036		0.0511	0.0500	2.1	20.0
Tetrahydrofuran	Ave	0.0474	0.0443		0.0935	0.100	-6.5	20.0
Chloroform	Ave	0.4719	0.4422	0.2000	0.0469	0.0500	-6.3	20.0
1,1,1-Trichloroethane	Ave	0.3690	0.3677	0.1000	0.0498	0.0500	-0.4	20.0
Cyclohexane	Ave	0.4787	0.4716	0.1000	0.0493	0.0500	-1.5	20.0
Carbon tetrachloride	Ave	0.2893	0.2971	0.1000	0.0513	0.0500	2.7	20.0
1,1-Dichloropropene	Ave	0.3247	0.3534		0.0544	0.0500	8.8	20.0
Benzene	Ave	0.9594	0.9492	0.5000	0.0495	0.0500	-1.1	20.0
Isobutyl alcohol	Ave	0.0051	0.0056		1.38	1.25	10.6	20.0
1,2-Dichloroethane	Ave	0.3210	0.3084	0.1000	0.0480	0.0500	-3.9	20.0
n-Heptane	Ave	0.0705	0.0704		0.0499	0.0500	-0.2	20.0
Trichloroethene	Ave	0.2385	0.2376	0.2000	0.0498	0.0500	-0.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-209533/21 Calibration Date: 12/04/2015 18:28

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 12:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 14:53

Lab File ID: 146855.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4711	0.4777	0.1000	0.0507	0.0500	1.4	20.0
1,2-Dichloropropane	Ave	0.2245	0.2218	0.1000	0.0494	0.0500	-1.2	20.0
Dibromomethane	Ave	0.1081	0.1095		0.0506	0.0500	1.3	20.0
1,4-Dioxane	Ave	0.0016	0.0016		0.986	1.00	-1.4	20.0
Bromodichloromethane	Ave	0.2816	0.2825	0.1000	0.0502	0.0500	0.3	20.0
2-Chloroethyl vinyl ether	Ave	0.0656	0.0693		0.0528	0.0500	5.6	20.0
cis-1,3-Dichloropropene	Ave	0.3044	0.3087	0.1500	0.0507	0.0500	1.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2564	0.2552	0.0500	0.0995	0.100	-0.5	20.0
Toluene	Ave	1.619	1.608	0.4000	0.0497	0.0500	-0.7	20.0
trans-1,3-Dichloropropene	Ave	0.3948	0.4208	0.1000	0.0533	0.0500	6.6	20.0
Ethyl methacrylate	Ave	0.2864	0.2995		0.0523	0.0500	4.6	20.0
1,1,2-Trichloroethane	Ave	0.2522	0.2381	0.1000	0.0472	0.0500	-5.6	20.0
Tetrachloroethene	Ave	0.2877	0.2838	0.2000	0.0493	0.0500	-1.4	20.0
1,3-Dichloropropane	Ave	0.4451	0.4345		0.0488	0.0500	-2.4	20.0
2-Hexanone	Ave	0.1699	0.1611	0.0500	0.0948	0.100	-5.2	20.0
Dibromochloromethane	Ave	0.2456	0.2442		0.0497	0.0500	-0.6	20.0
1,2-Dibromoethane	Ave	0.2274	0.2341		0.0515	0.0500	3.0	20.0
Chlorobenzene	Ave	1.024	0.9710	0.3000	0.0474	0.0500	-5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3012	0.3064		0.0509	0.0500	1.7	20.0
Ethylbenzene	Ave	0.5351	0.5394		0.0504	0.0500	0.8	20.0
m-Xylene & p-Xylene	Ave	0.6659	0.6526		0.0490	0.0500	-2.0	20.0
o-Xylene	Ave	0.6445	0.6604		0.0512	0.0500	2.5	20.0
Styrene	Ave	0.9870	0.9657	0.3000	0.0489	0.0500	-2.2	20.0
Bromoform	Lin1		0.1198	0.1000	0.0427	0.0500	-14.6	20.0
Isopropylbenzene	Ave	1.811	1.881	0.1000	0.0519	0.0500	3.8	20.0
Bromobenzene	Ave	0.7161	0.7158		0.0500	0.0500	-0.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5968	0.6190	0.3000	0.0519	0.0500	3.7	20.0
1,2,3-Trichloropropane	Ave	0.1736	0.1909		0.0550	0.0500	10.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1965	0.1861		0.0473	0.0500	-5.3	20.0
N-Propylbenzene	Ave	0.9053	0.9455		0.0522	0.0500	4.4	20.0
2-Chlorotoluene	Ave	0.7708	0.7800		0.0506	0.0500	1.2	20.0
1,3,5-Trimethylbenzene	Ave	3.161	3.223		0.0510	0.0500	2.0	20.0
4-Chlorotoluene	Ave	0.7542	0.7572		0.0502	0.0500	0.4	20.0
tert-Butylbenzene	Ave	2.692	2.787		0.0518	0.0500	3.5	20.0
1,2,4-Trimethylbenzene	Ave	3.142	3.218		0.0512	0.0500	2.4	20.0
sec-Butylbenzene	Ave	4.118	4.284		0.0520	0.0500	4.0	20.0
1,3-Dichlorobenzene	Ave	1.386	1.296	0.6000	0.0468	0.0500	-6.5	20.0
p-Isopropyltoluene	Ave	3.250	3.265		0.0502	0.0500	0.5	20.0
1,4-Dichlorobenzene	Ave	1.414	1.304	0.5000	0.0461	0.0500	-7.8	20.0
n-Butylbenzene	Ave	3.186	3.144		0.0493	0.0500	-1.3	20.0
1,2-Dichlorobenzene	Ave	1.341	1.261	0.4000	0.0470	0.0500	-5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-209533/21 Calibration Date: 12/04/2015 18:28

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 12:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 14:53

Lab File ID: 146855.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0894	0.0967	0.0500	0.0541	0.0500	8.2	20.0
1,2,4-Trichlorobenzene	Ave	0.9878	0.8867	0.2000	0.0449	0.0500	-10.2	20.0
Hexachlorobutadiene	Ave	0.6209	0.6199		0.0499	0.0500	-0.2	20.0
Naphthalene	Ave	1.985	1.944		0.0490	0.0500	-2.0	20.0
1,2,3-Trichlorobenzene	Ave	0.9267	0.8347		0.0450	0.0500	-9.9	20.0
Dibromofluoromethane (Surr)	Lin1		0.2187		0.0471	0.0500	-5.7	20.0
1,2-Dichloroethane-d4 (Surr)	Lin1		0.2609		0.0441	0.0500	-11.8	20.0
Toluene-d8 (Surr)	Lin1		1.479		0.0457	0.0500	-8.6	20.0
4-Bromofluorobenzene (Surr)	Lin1		1.034		0.0449	0.0500	-10.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVIS 240-211550/3 Calibration Date: 12/18/2015 14:08

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 12:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 14:53

Lab File ID: 147120.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2963	0.3678	0.1000	0.0248	0.0200	24.1*	20.0
Chloromethane	Ave	0.3239	0.3426	0.1000	0.0212	0.0200	5.8	20.0
Vinyl chloride	Ave	0.2686	0.2801	0.1000	0.0209	0.0200	4.3	20.0
Butadiene	Ave	0.2877	0.2883		0.0200	0.0200	0.2	20.0
Bromomethane	Ave	0.1483	0.1427	0.0500	0.0192	0.0200	-3.8	20.0
Chloroethane	Ave	0.1503	0.1546	0.0500	0.0206	0.0200	2.8	20.0
Dichlorofluoromethane	Ave	0.3636	0.3310		0.0182	0.0200	-9.0	20.0
Trichlorofluoromethane	Ave	0.3608	0.3850	0.1000	0.0213	0.0200	6.7	20.0
Ethyl ether	Ave	0.1706	0.1699		0.0498	0.0500	-0.4	20.0
Acrolein	Ave	0.0255	0.0292		0.286	0.250	14.2	20.0
1,1-Dichloroethene	Ave	0.2284	0.2501	0.1000	0.0547	0.0500	9.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1744	0.1978	0.0500	0.0567	0.0500	13.4	20.0
Acetone	Ave	0.0671	0.0660	0.0500	0.0983	0.100	-1.7	20.0
Iodomethane	Ave	0.3186	0.3200		0.0502	0.0500	0.4	20.0
Carbon disulfide	Ave	0.6411	0.6813	0.1000	0.0531	0.0500	6.3	20.0
3-Chloro-1-propene	Ave	0.1297	0.1413		0.0544	0.0500	8.9	20.0
Methyl acetate	Ave	0.1195	0.1237	0.1000	0.259	0.250	3.5	20.0
Methylene Chloride	Ave	0.2721	0.2629	0.1000	0.0483	0.0500	-3.4	20.0
tert-Butyl alcohol (TBA)	Ave	0.0167	0.0171		0.512	0.500	2.3	20.0
trans-1,2-Dichloroethene	Ave	0.2570	0.2653	0.1000	0.0516	0.0500	3.2	20.0
Methyl tert-butyl ether	Ave	0.5603	0.5933	0.1000	0.0529	0.0500	5.9	20.0
Acrylonitrile	Ave	0.0595	0.0599		0.503	0.500	0.6	20.0
Hexane	Ave	0.0704	0.0735		0.0522	0.0500	4.3	20.0
1,1-Dichloroethane	Ave	0.4817	0.4850	0.1000	0.0503	0.0500	0.7	20.0
Vinyl acetate	Ave	0.0304	0.0289		0.0475	0.0500	-5.1	20.0
2,2-Dichloropropane	Ave	0.2706	0.2885		0.0533	0.0500	6.6	20.0
cis-1,2-Dichloroethene	Ave	0.2625	0.2734	0.1000	0.0521	0.0500	4.2	20.0
2-Butanone (MEK)	Ave	0.0742	0.0756	0.0500	0.102	0.100	1.9	20.0
Bromochloromethane	Ave	0.1015	0.1034		0.0510	0.0500	1.9	20.0
Tetrahydrofuran	Ave	0.0474	0.0477		0.101	0.100	0.6	20.0
Chloroform	Ave	0.4719	0.4571	0.2000	0.0484	0.0500	-3.1	20.0
1,1,1-Trichloroethane	Ave	0.3690	0.4010	0.1000	0.0543	0.0500	8.7	20.0
Cyclohexane	Ave	0.4787	0.4917	0.1000	0.0514	0.0500	2.7	20.0
Carbon tetrachloride	Ave	0.2893	0.3073	0.1000	0.0531	0.0500	6.2	20.0
1,1-Dichloropropene	Ave	0.3247	0.3440		0.0530	0.0500	6.0	20.0
Benzene	Ave	0.9594	0.998	0.5000	0.0520	0.0500	4.0	20.0
Isobutyl alcohol	Ave	0.0051	0.0058		1.43	1.25	14.0	20.0
1,2-Dichloroethane	Ave	0.3210	0.3221	0.1000	0.0502	0.0500	0.4	20.0
n-Heptane	Ave	0.0705	0.0723		0.0512	0.0500	2.4	20.0
Trichloroethene	Ave	0.2385	0.2465	0.2000	0.0517	0.0500	3.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVIS 240-211550/3 Calibration Date: 12/18/2015 14:08

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 12:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 14:53

Lab File ID: 147120.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4711	0.5025	0.1000	0.0533	0.0500	6.7	20.0
1,2-Dichloropropane	Ave	0.2245	0.2227	0.1000	0.0496	0.0500	-0.8	20.0
Dibromomethane	Ave	0.1081	0.1124		0.0520	0.0500	4.0	20.0
1,4-Dioxane	Ave	0.0016	0.0015		0.960	1.00	-4.0	20.0
Bromodichloromethane	Ave	0.2816	0.2999	0.1000	0.0533	0.0500	6.5	20.0
2-Chloroethyl vinyl ether	Ave	0.0656	0.0762		0.116	0.100	16.2	20.0
cis-1,3-Dichloropropene	Ave	0.3044	0.3141	0.1500	0.0516	0.0500	3.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2564	0.2524	0.0500	0.0984	0.100	-1.6	20.0
Toluene	Ave	1.619	1.713	0.4000	0.0529	0.0500	5.9	20.0
trans-1,3-Dichloropropene	Ave	0.3948	0.4213	0.1000	0.0534	0.0500	6.7	20.0
Ethyl methacrylate	Ave	0.2864	0.2963		0.0517	0.0500	3.4	20.0
1,1,2-Trichloroethane	Ave	0.2522	0.2607	0.1000	0.0517	0.0500	3.4	20.0
Tetrachloroethene	Ave	0.2877	0.3109	0.2000	0.0540	0.0500	8.1	20.0
1,3-Dichloropropane	Ave	0.4451	0.4525		0.0508	0.0500	1.7	20.0
2-Hexanone	Ave	0.1699	0.1661	0.0500	0.0977	0.100	-2.3	20.0
Dibromochloromethane	Ave	0.2456	0.2625		0.0534	0.0500	6.9	20.0
1,2-Dibromoethane	Ave	0.2274	0.2551		0.0561	0.0500	12.2	20.0
Chlorobenzene	Ave	1.024	1.021	0.3000	0.0499	0.0500	-0.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3012	0.3444		0.0572	0.0500	14.3	20.0
Ethylbenzene	Ave	0.5351	0.5860		0.0548	0.0500	9.5	20.0
m-Xylene & p-Xylene	Ave	0.6659	0.7071		0.0531	0.0500	6.2	20.0
o-Xylene	Ave	0.6445	0.7125		0.0553	0.0500	10.5	20.0
Styrene	Ave	0.9870	1.083	0.3000	0.0549	0.0500	9.8	20.0
Bromoform	Lin1		0.1354	0.1000	0.0481	0.0500	-3.7	20.0
Isopropylbenzene	Ave	1.811	2.047	0.1000	0.0565	0.0500	13.0	20.0
Bromobenzene	Ave	0.7161	0.7657		0.0535	0.0500	6.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5968	0.6521	0.3000	0.0546	0.0500	9.3	20.0
1,2,3-Trichloropropane	Ave	0.1736	0.2019		0.0581	0.0500	16.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1965	0.2076		0.0528	0.0500	5.6	20.0
N-Propylbenzene	Ave	0.9053	1.031		0.0570	0.0500	13.9	20.0
2-Chlorotoluene	Ave	0.7708	0.8486		0.0550	0.0500	10.1	20.0
1,3,5-Trimethylbenzene	Ave	3.161	3.616		0.0572	0.0500	14.4	20.0
4-Chlorotoluene	Ave	0.7542	0.8156		0.0541	0.0500	8.1	20.0
tert-Butylbenzene	Ave	2.692	3.003		0.0558	0.0500	11.6	20.0
1,2,4-Trimethylbenzene	Ave	3.142	3.607		0.0574	0.0500	14.8	20.0
sec-Butylbenzene	Ave	4.118	4.797		0.0582	0.0500	16.5	20.0
1,3-Dichlorobenzene	Ave	1.386	1.476	0.6000	0.0532	0.0500	6.5	20.0
p-Isopropyltoluene	Ave	3.250	3.714		0.0571	0.0500	14.3	20.0
1,4-Dichlorobenzene	Ave	1.414	1.447	0.5000	0.0512	0.0500	2.3	20.0
n-Butylbenzene	Ave	3.186	3.538		0.0555	0.0500	11.1	20.0
1,2-Dichlorobenzene	Ave	1.341	1.424	0.4000	0.0531	0.0500	6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVIS 240-211550/3 Calibration Date: 12/18/2015 14:08

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 12:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 14:53

Lab File ID: 147120.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0894	0.1020	0.0500	0.0571	0.0500	14.2	20.0
1,2,4-Trichlorobenzene	Ave	0.9878	1.082	0.2000	0.0548	0.0500	9.6	20.0
Hexachlorobutadiene	Ave	0.6209	0.7231		0.0582	0.0500	16.4	20.0
Naphthalene	Ave	1.985	2.219		0.0559	0.0500	11.8	20.0
1,2,3-Trichlorobenzene	Ave	0.9267	1.000		0.0539	0.0500	7.9	20.0
Dibromofluoromethane (Surr)	Lin1		0.2243		0.0484	0.0500	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Lin1		0.2672		0.0452	0.0500	-9.5	20.0
Toluene-d8 (Surr)	Lin1		1.508		0.0466	0.0500	-6.7	20.0
4-Bromofluorobenzene (Surr)	Lin1		1.051		0.0457	0.0500	-8.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211550/4 Calibration Date: 12/18/2015 14:29

Instrument ID: A3UX14 Calib Start Date: 12/04/2015 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/04/2015 18:07

Lab File ID: 147121.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0194	0.0182		0.468	0.500	-6.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4546	0.4599		0.0506	0.0500	1.2	20.0
Diisopropyl ether	Ave	0.1969	0.1902		0.0483	0.0500	-3.4	20.0
Ethyl t-butyl ether	Ave	0.6740	0.6676		0.0495	0.0500	-1.0	20.0
Ethyl acetate	Ave	0.1393	0.1338		0.0961	0.100	-3.9	20.0
Propionitrile	Ave	0.0223	0.0207		0.463	0.500	-7.3	20.0
Methacrylonitrile	Ave	0.0990	0.0968		0.489	0.500	-2.2	20.0
Tert-amyl methyl ether	Ave	0.5862	0.5825		0.0497	0.0500	-0.6	20.0
n-Butanol	Ave	0.0075	0.0073		1.21	1.25	-3.4	20.0
Methyl methacrylate	Ave	0.1297	0.1305		0.101	0.100	0.6	20.0
2-Nitropropane	Qua		0.0276		0.102	0.100	2.3	20.0
1-Chlorohexane	Ave	0.4618	0.4613		0.0500	0.0500	-0.1	20.0
Cyclohexanone	Ave	0.0098	0.0088		0.451	0.500	-9.8	20.0
1,2,3-Trimethylbenzene	Ave	3.049	3.257		0.0534	0.0500	6.8	20.0
1,3,5-Trichlorobenzene	Ave	1.039	1.113		0.0535	0.0500	7.1	20.0
2-Methylnaphthalene	Ave	1.230	1.328		0.108	0.100	8.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211550/6

Matrix: Solid | Lab File ID: 147123.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 12/18/2015 15:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	5.0	0.50
71-55-6	1,1,1-Trichloroethane	0.65	U	5.0	0.65
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	5.0	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.42	U	5.0	0.42
75-34-3	1,1-Dichloroethane	0.34	U	5.0	0.34
75-35-4	1,1-Dichloroethene	0.80	U	5.0	0.80
563-58-6	1,1-Dichloropropene	0.37	U	5.0	0.37
87-61-6	1,2,3-Trichlorobenzene	0.559	J	5.0	0.50
96-18-4	1,2,3-Trichloropropane	0.78	U	5.0	0.78
526-73-8	1,2,3-Trimethylbenzene	0.46	U	5.0	0.46
120-82-1	1,2,4-Trichlorobenzene	0.409	J	5.0	0.38
95-63-6	1,2,4-Trimethylbenzene	0.58	U	5.0	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	2.7	U	10	2.7
95-50-1	1,2-Dichlorobenzene	0.34	U	5.0	0.34
107-06-2	1,2-Dichloroethane	0.46	U	5.0	0.46
78-87-5	1,2-Dichloropropane	0.14	U	5.0	0.14
541-73-1	1,3-Dichlorobenzene	0.69	U	5.0	0.69
142-28-9	1,3-Dichloropropane	0.40	U	5.0	0.40
106-46-7	1,4-Dichlorobenzene	0.28	U	5.0	0.28
594-20-7	2,2-Dichloropropane	0.44	U	5.0	0.44
78-93-3	2-Butanone (MEK)	1.1	U	20	1.1
110-75-8	2-Chloroethyl vinyl ether	0.64	U	50	0.64
95-49-8	2-Chlorotoluene	0.30	U	5.0	0.30
591-78-6	2-Hexanone	0.68	U	20	0.68
106-43-4	4-Chlorotoluene	0.26	U	5.0	0.26
99-87-6	p-Isopropyltoluene	0.41	U	5.0	0.41
108-10-1	4-Methyl-2-pentanone (MIBK)	1.2	U	20	1.2
67-64-1	Acetone	6.77	J	20	5.7
71-43-2	Benzene	0.90	U	5.0	0.90
108-86-1	Bromobenzene	0.33	U	5.0	0.33
75-25-2	Bromoform	0.24	U	5.0	0.24
74-83-9	Bromomethane	0.42	U	5.0	0.42
75-15-0	Carbon disulfide	0.59	U	5.0	0.59
56-23-5	Carbon tetrachloride	0.65	U	5.0	0.65
108-90-7	Chlorobenzene	0.53	U	5.0	0.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211550/6

Matrix: Solid | Lab File ID: 147123.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 12/18/2015 15:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.37	U	5.0	0.37
75-00-3	Chloroethane	0.44	U	5.0	0.44
67-66-3	Chloroform	0.36	U	5.0	0.36
74-87-3	Chloromethane	0.79	U	5.0	0.79
156-59-2	cis-1,2-Dichloroethene	0.28	U	5.0	0.28
10061-01-5	cis-1,3-Dichloropropene	0.71	U	5.0	0.71
74-95-3	Dibromomethane	0.42	U	5.0	0.42
74-97-5	Bromochloromethane	0.33	U	5.0	0.33
75-71-8	Dichlorodifluoromethane	0.28	U	5.0	0.28
75-27-4	Bromodichloromethane	0.29	U	5.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	5.7	U	200	5.7
100-41-4	Ethylbenzene	0.32	U	5.0	0.32
87-68-3	Hexachlorobutadiene	0.40	U	5.0	0.40
108-20-3	Diisopropyl ether	0.59	U	10	0.59
98-82-8	Isopropylbenzene	0.20	U	5.0	0.20
1634-04-4	Methyl tert-butyl ether	0.43	U	5.0	0.43
75-09-2	Methylene Chloride	2.80	J	5.0	0.74
179601-23-1	m-Xylene & p-Xylene	0.42	U	10	0.42
91-20-3	Naphthalene	0.681	J	5.0	0.35
104-51-8	n-Butylbenzene	0.59	U	5.0	0.59
103-65-1	N-Propylbenzene	0.60	U	5.0	0.60
95-47-6	o-Xylene	0.57	U	5.0	0.57
135-98-8	sec-Butylbenzene	0.91	U	5.0	0.91
100-42-5	Styrene	0.40	U	5.0	0.40
994-05-8	Tert-amyl methyl ether	0.43	U	5.0	0.43
637-92-3	Ethyl t-butyl ether	0.41	U	5.0	0.41
127-18-4	Tetrachloroethene	0.80	U	5.0	0.80
108-88-3	Toluene	0.27	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	0.32	U	5.0	0.32
10061-02-6	trans-1,3-Dichloropropene	0.29	U	5.0	0.29
79-01-6	Trichloroethene	0.38	U	5.0	0.38
75-69-4	Trichlorofluoromethane	0.29	U	5.0	0.29
108-05-4	Vinyl acetate	0.66	U	10	0.66
75-01-4	Vinyl chloride	0.30	U	5.0	0.30
1330-20-7	Xylenes, Total	0.54	U	10	0.54
98-06-6	tert-Butylbenzene	0.67	U	5.0	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-211550/6

Matrix: Solid Lab File ID: 147123.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 12/18/2015 15:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211550 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.53	U	5.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		67-125
1868-53-7	Dibromofluoromethane (Surr)	92		37-132
460-00-4	4-Bromofluorobenzene (Surr)	84		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211550/5

Matrix: Solid | Lab File ID: 147122.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 12/18/2015 14:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	55.2		5.0	0.50
71-55-6	1,1,1-Trichloroethane	52.3		5.0	0.65
79-34-5	1,1,2,2-Tetrachloroethane	52.0		5.0	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	51.2		5.0	0.42
75-34-3	1,1-Dichloroethane	49.6		5.0	0.34
75-35-4	1,1-Dichloroethene	46.7		5.0	0.80
563-58-6	1,1-Dichloropropene	55.7		5.0	0.37
87-61-6	1,2,3-Trichlorobenzene	48.3		5.0	0.50
96-18-4	1,2,3-Trichloropropane	55.3		5.0	0.78
120-82-1	1,2,4-Trichlorobenzene	50.2		5.0	0.38
95-63-6	1,2,4-Trimethylbenzene	52.5		5.0	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	52.3		10	2.7
95-50-1	1,2-Dichlorobenzene	49.9		5.0	0.34
107-06-2	1,2-Dichloroethane	49.7		5.0	0.46
78-87-5	1,2-Dichloropropane	50.7		5.0	0.14
541-73-1	1,3-Dichlorobenzene	49.7		5.0	0.69
142-28-9	1,3-Dichloropropane	51.2		5.0	0.40
106-46-7	1,4-Dichlorobenzene	48.0		5.0	0.28
594-20-7	2,2-Dichloropropane	51.7		5.0	0.44
78-93-3	2-Butanone (MEK)	99.9		20	1.1
110-75-8	2-Chloroethyl vinyl ether	57.6		50	0.64
95-49-8	2-Chlorotoluene	51.4		5.0	0.30
591-78-6	2-Hexanone	99.6		20	0.68
106-43-4	4-Chlorotoluene	51.2		5.0	0.26
99-87-6	p-Isopropyltoluene	51.5		5.0	0.41
108-10-1	4-Methyl-2-pentanone (MIBK)	99.3		20	1.2
67-64-1	Acetone	94.9		20	5.7
71-43-2	Benzene	50.7		5.0	0.90
108-86-1	Bromobenzene	51.5		5.0	0.33
75-25-2	Bromoform	48.6		5.0	0.24
74-83-9	Bromomethane	19.1		5.0	0.42
75-15-0	Carbon disulfide	51.9		5.0	0.59
56-23-5	Carbon tetrachloride	53.0		5.0	0.65
108-90-7	Chlorobenzene	49.6		5.0	0.53
124-48-1	Dibromochloromethane	52.8		5.0	0.37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211550/5

Matrix: Solid | Lab File ID: 147122.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 12/18/2015 14:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	17.7		5.0	0.44
67-66-3	Chloroform	47.0		5.0	0.36
74-87-3	Chloromethane	16.9		5.0	0.79
156-59-2	cis-1,2-Dichloroethene	50.7		5.0	0.28
10061-01-5	cis-1,3-Dichloropropene	54.4		5.0	0.71
74-95-3	Dibromomethane	52.5		5.0	0.42
74-97-5	Bromochloromethane	49.7		5.0	0.33
75-71-8	Dichlorodifluoromethane	13.3		5.0	0.28
75-27-4	Bromodichloromethane	52.1		5.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	472		200	5.7
100-41-4	Ethylbenzene	53.7		5.0	0.32
87-68-3	Hexachlorobutadiene	52.9		5.0	0.40
98-82-8	Isopropylbenzene	54.2		5.0	0.20
1634-04-4	Methyl tert-butyl ether	52.5		5.0	0.43
75-09-2	Methylene Chloride	46.9		5.0	0.74
179601-23-1	m-Xylene & p-Xylene	52.5		10	0.42
91-20-3	Naphthalene	51.6		5.0	0.35
104-51-8	n-Butylbenzene	52.0		5.0	0.59
103-65-1	N-Propylbenzene	52.8		5.0	0.60
95-47-6	o-Xylene	53.9		5.0	0.57
135-98-8	sec-Butylbenzene	53.5		5.0	0.91
100-42-5	Styrene	51.0		5.0	0.40
127-18-4	Tetrachloroethene	50.6		5.0	0.80
108-88-3	Toluene	52.8		5.0	0.27
156-60-5	trans-1,2-Dichloroethene	52.2		5.0	0.32
10061-02-6	trans-1,3-Dichloropropene	56.7		5.0	0.29
79-01-6	Trichloroethene	52.2		5.0	0.38
75-69-4	Trichlorofluoromethane	18.7		5.0	0.29
108-05-4	Vinyl acetate	44.4		10	0.66
75-01-4	Vinyl chloride	17.5		5.0	0.30
1330-20-7	Xylenes, Total	106		10	0.54
98-06-6	tert-Butylbenzene	51.9		5.0	0.67
106-93-4	1,2-Dibromoethane	54.7		5.0	0.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-211550/5

Matrix: Solid Lab File ID: 147122.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 12/18/2015 14:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211550 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		67-125
1868-53-7	Dibromofluoromethane (Surr)	89		37-132
460-00-4	4-Bromofluorobenzene (Surr)	84		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211550/7

Matrix: Solid | Lab File ID: 147124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 12/18/2015 15:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 211550 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
526-73-8	1,2,3-Trimethylbenzene	51.7		5.0	0.46
108-20-3	Diisopropyl ether	48.4		10	0.59
994-05-8	Tert-amyl methyl ether	48.3		5.0	0.43
637-92-3	Ethyl t-butyl ether	48.7		5.0	0.41

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132
460-00-4	4-Bromofluorobenzene (Surr)	84		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		58-123

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A3UX14 Start Date: 12/04/2015 11:19

Analysis Batch Number: 209533 End Date: 12/04/2015 20:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-209533/1		12/04/2015 11:19	1	BFB14150.D	DB-624 0.18(mm)
IC 240-209533/3		12/04/2015 12:02	1	146837.D	DB-624 0.18(mm)
IC 240-209533/4		12/04/2015 12:23	1	146838.D	DB-624 0.18(mm)
IC 240-209533/5		12/04/2015 12:45	1	146839.D	DB-624 0.18(mm)
ICIS 240-209533/6		12/04/2015 13:06	1	146840.D	DB-624 0.18(mm)
IC 240-209533/7		12/04/2015 13:28	1	146841.D	DB-624 0.18(mm)
IC 240-209533/8		12/04/2015 13:49	1	146842.D	DB-624 0.18(mm)
IC 240-209533/9		12/04/2015 14:10	1	146843.D	DB-624 0.18(mm)
IC 240-209533/10		12/04/2015 14:32	1	146844.D	DB-624 0.18(mm)
IC 240-209533/11		12/04/2015 14:53	1	146845.D	DB-624 0.18(mm)
IC 240-209533/12		12/04/2015 15:15	1	146846.D	DB-624 0.18(mm)
IC 240-209533/13		12/04/2015 15:36	1	146847.D	DB-624 0.18(mm)
IC 240-209533/14		12/04/2015 15:58	1	146848.D	DB-624 0.18(mm)
IC 240-209533/15		12/04/2015 16:19	1	146849.D	DB-624 0.18(mm)
IC 240-209533/16		12/04/2015 16:41	1	146850.D	DB-624 0.18(mm)
IC 240-209533/17		12/04/2015 17:02	1	146851.D	DB-624 0.18(mm)
IC 240-209533/18		12/04/2015 17:24	1	146852.D	DB-624 0.18(mm)
IC 240-209533/19		12/04/2015 17:45	1	146853.D	DB-624 0.18(mm)
IC 240-209533/20		12/04/2015 18:07	1	146854.D	DB-624 0.18(mm)
ICV 240-209533/21		12/04/2015 18:28	1	146855.D	DB-624 0.18(mm)
ICV 240-209533/22		12/04/2015 18:50	1		DB-624 0.18(mm)
ZZZZZ		12/04/2015 19:11	1		DB-624 0.18(mm)
ZZZZZ		12/04/2015 19:33	1		DB-624 0.18(mm)
ZZZZZ		12/04/2015 19:54	1		DB-624 0.18(mm)
ZZZZZ		12/04/2015 20:16	1		DB-624 0.18(mm)
ZZZZZ		12/04/2015 20:37	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A3UX14 Start Date: 12/18/2015 13:24

Analysis Batch Number: 211550 End Date: 12/18/2015 21:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-211550/24		12/18/2015 13:24	1	BFB14163.D	DB-624 0.18(mm)
CCVIS 240-211550/3		12/18/2015 14:08	1	147120.D	DB-624 0.18(mm)
CCV 240-211550/4		12/18/2015 14:29	1	147121.D	DB-624 0.18(mm)
LCS 240-211550/5		12/18/2015 14:51	1	147122.D	DB-624 0.18(mm)
MB 240-211550/6		12/18/2015 15:12	1	147123.D	DB-624 0.18(mm)
LCS 240-211550/7		12/18/2015 15:34	1	147124.D	DB-624 0.18(mm)
ZZZZZ		12/18/2015 15:55	1		DB-624 0.18(mm)
ZZZZZ		12/18/2015 16:17	1		DB-624 0.18(mm)
ZZZZZ		12/18/2015 21:17	1		DB-624 0.18(mm)
240-59150-1	D-SD-WC-1	12/18/2015 21:39	1	147141.D	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211081 Batch Start Date: 12/16/15 10:40 Batch Analyst: Mancine, Louis

Batch Method: 5035 Batch End Date: 12/16/15 17:21

Lab Sample ID	Client Sample ID	Method Chain	Basis	TareWeight	Vial&SampleWt	InitialAmount	FinalAmount		
240-59150-1	D-SD-WC-1	5035, 8260C	T	35.42 g	40.47 g	5.05 g	5 mL		

Batch Notes	
Balance ID	B035
Blank Sand Lot #	152058

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-SD-WC-1	240-59150-1	55	40	83	77	80	77
	MB 240-211298/3-A	57	40	80	71	83	78
	LCS 240-211298/4-A	74	51	91	80	90	91
D-SD-WC-1 MS	240-59150-1 MS	57	41	74	70	70	75

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	20-110
PHL = Phenol-d5 (Surr)	21-110
NBZ = Nitrobenzene-d5 (Surr)	28-110
FBP = 2-Fluorobiphenyl (Surr)	30-110
TBP = 2,4,6-Tribromophenol (Surr)	23-110
TPH = Terphenyl-d14 (Surr)	48-110

Column to be used to flag recovery values

FORM II 8270C

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 51220006.D

Lab ID: LCS 240-211298/4-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,4-Dichlorobenzene	0.0800	0.0624	78	52-110	
2,4,5-Trichlorophenol	0.0800	0.0737	92	51-110	
2,4,6-Trichlorophenol	0.0800	0.0719	90	46-110	
2,4-Dinitrotoluene	0.0800	0.0685	86	54-110	
Hexachlorobenzene	0.0800	0.0748	93	50-110	
Hexachlorobutadiene	0.0800	0.0601	75	34-110	
Hexachloroethane	0.0800	0.0584	73	41-110	
3 & 4 Methylphenol	0.0800	0.0602	75	48-110	
2-Methylphenol	0.0800	0.0630	79	44-111	
Nitrobenzene	0.0800	0.0696	87	40-110	
Pentachlorophenol	0.160	0.144	90	12-110	
Pyridine	0.0800	0.0510	64	30-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: 51220012.D

Lab ID: 240-59150-1 MS Client ID: D-SD-WC-1 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,4-Dichlorobenzene	0.0800	0.00034 U	0.0504	63	31-110	
2,4,5-Trichlorophenol	0.0800	0.00030 U	0.0578	72	41-110	
2,4,6-Trichlorophenol	0.0800	0.00024 U	0.0586	73	35-110	
2,4-Dinitrotoluene	0.0800	0.00025 U	0.0573	72	42-110	
Hexachlorobenzene	0.0800	0.000085 U	0.0626	78	42-110	
Hexachlorobutadiene	0.0800	0.00027 U	0.0492	61	28-110	
Hexachloroethane	0.0800	0.00019 U	0.0468	59	26-110	
3 & 4 Methylphenol	0.0800	0.0013 J	0.0486	59	29-110	
2-Methylphenol	0.0800	0.00017 U	0.0498	62	33-112	
Nitrobenzene	0.0800	0.000040 U	0.0542	68	32-110	
Pentachlorophenol	0.160	0.00027 U	0.128	80	10-124	
Pyridine	0.0800	0.00035 U	0.0447	56	21-110	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51220005.D Lab Sample ID: MB 240-211298/3-A

Matrix: Water Date Extracted: 12/17/2015 10:39

Instrument ID: A4HP7 Date Analyzed: 12/20/2015 11:38

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-211298/4-A	51220006.D	12/20/2015 12:01
D-SD-WC-1	240-59150-1	51220011.D	12/20/2015 13:57
D-SD-WC-1 MS	240-59150-1 MS	51220012.D	12/20/2015 14:20

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51202001.D DFTPP Injection Date: 12/02/2015

Instrument ID: A4HP7 DFTPP Injection Time: 12:25

Analysis Batch No.: 209109

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	55.0	
68	Less than 2.0% of mass 69	0.8	(1.8) 1
69	Mass 69 relative abundance	45.4	
70	Less than 2.0% of mass 69	0.4	(1.0) 1
127	25.0 - 75.0% of mass 198	53.8	
197	Less than 1.0% of mass 198	0.3	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	20.2	
365	Greater than 0.75% of mass 198	2.2	
441	Present, but less than mass 443	8.3	
442	40.0 - 110.0% of mass 198	59.2	
443	15.0 - 24.0% of mass 442	11.0	(18.6) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-209109/2	51202002.D	12/02/2015	12:51
	STD4 240-209109/3	51202003.D	12/02/2015	13:15
	STD3 240-209109/4	51202004.D	12/02/2015	13:39
	STD2 240-209109/5	51202005.D	12/02/2015	14:02
	STD1 240-209109/6	51202006.D	12/02/2015	14:26
	STD9 240-209109/7	51202007.D	12/02/2015	14:50
	STD8 240-209109/8	51202008.D	12/02/2015	15:14
	STD7 240-209109/9	51202009.D	12/02/2015	15:38
	STD6 240-209109/10	51202010.D	12/02/2015	16:01
	ICV 240-209109/11	51202011.D	12/02/2015	16:25

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51220001.D DFTPP Injection Date: 12/20/2015

Instrument ID: A4HP7 DFTPP Injection Time: 10:08

Analysis Batch No.: 211628

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0- 80.0% of mass 198	73.7
68	Less than 2.0% of mass 69	1.0 (1.9) 1
69	Mass 69 relative abundance	52.0
70	Less than 2.0% of mass 69	0.4 (0.8) 1
127	25.0 - 75.0% of mass 198	57.8
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0- 30.0% of mass 198	19.3
365	Greater than 0.75% of mass 198	2.2
441	Present, but less than mass 443	7.0
442	40.0 - 110.0% of mass 198	49.0
443	15.0 - 24.0% of mass 442	9.6 (19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-211628/2	51220002.D	12/20/2015	10:28
	MB 240-211298/3-A	51220005.D	12/20/2015	11:38
	LCS 240-211298/4-A	51220006.D	12/20/2015	12:01
D-SD-WC-1	240-59150-1	51220011.D	12/20/2015	13:57
D-SD-WC-1 MS	240-59150-1 MS	51220012.D	12/20/2015	14:20

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD6 240-209109/10 Date Analyzed: 12/02/2015 16:01

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 51202010.D Heated Purge: (Y/N) N

Calibration ID: 31870

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		195447	6.03	774911	7.14	443432	8.60
UPPER LIMIT		390894	6.53	1549822	7.64	886864	9.10
LOWER LIMIT		97724	5.53	387456	6.64	221716	8.10
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-209109/11		213066	6.03	847468	7.14	486572	8.60
CCV 240-211628/2 CCVIS		174945	6.03	691663	7.13	394032	8.60

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD6 240-209109/10 Date Analyzed: 12/02/2015 16:01

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 51202010.D Heated Purge: (Y/N) N

Calibration ID: 31870

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		792293	9.83	775935	12.20	655960	14.00
UPPER LIMIT		1584586	10.33	1551870	12.70	1311920	14.50
LOWER LIMIT		396147	9.33	387968	11.70	327980	13.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-209109/11		897252	9.83	869499	12.20	724744	14.00
CCV 240-211628/2 CCVIS		648891	9.83	638888	12.19	518061	14.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211628/2 Date Analyzed: 12/20/2015 10:28

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 51220002.D Heated Purge: (Y/N) N

Calibration ID: 32033

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		174945	6.03	691663	7.13	394032	8.60
UPPER LIMIT		349890	6.53	1383326	7.63	788064	9.10
LOWER LIMIT		87473	5.53	345832	6.63	197016	8.10
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-211298/3-A		164208	6.03	629926	7.12	375371	8.60
LCS 240-211298/4-A		147868	6.03	587090	7.13	348552	8.60
240-59150-1	D-SD-WC-1	167199	6.03	629888	7.12	369291	8.60
240-59150-1 MS	D-SD-WC-1 MS	159031	6.03	632208	7.12	369117	8.60

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211628/2 Date Analyzed: 12/20/2015 10:28

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 51220002.D Heated Purge: (Y/N) N

Calibration ID: 32033

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		648891	9.83	638888	12.19	518061	14.00
UPPER LIMIT		1297782	10.33	1277776	12.69	1036122	14.50
LOWER LIMIT		324446	9.33	319444	11.69	259031	13.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-211298/3-A		662578	9.83	620491	12.19	511667	14.00
LCS 240-211298/4-A		531802	9.83	580979	12.19	477689	14.00
240-59150-1	D-SD-WC-1	624821	9.82	633772	12.19	481906	14.00
240-59150-1 MS	D-SD-WC-1 MS	560512	9.83	628274	12.19	503940	14.00

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid (TCLP) | Lab File ID: 51220011.D

Analysis Method: 8270C | Date Collected: 12/15/2015 14:00

Extract. Method: 3510C | Date Extracted: 12/17/2015 10:39

Sample wt/vol: 250(mL) | Date Analyzed: 12/20/2015 13:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211628 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00034	U	0.0040	0.00034
95-95-4	2,4,5-Trichlorophenol	0.00030	U	0.0040	0.00030
88-06-2	2,4,6-Trichlorophenol	0.00024	U	0.0040	0.00024
121-14-2	2,4-Dinitrotoluene	0.00025	U	0.0040	0.00025
118-74-1	Hexachlorobenzene	0.000085	U	0.00080	0.000085
87-68-3	Hexachlorobutadiene	0.00027	U	0.0040	0.00027
67-72-1	Hexachloroethane	0.00019	U	0.0040	0.00019
15831-10-4	3 & 4 Methylphenol	0.0013	J	0.0040	0.00080
95-48-7	2-Methylphenol	0.00017	U	0.0040	0.00017
98-95-3	Nitrobenzene	0.000040	U	0.0040	0.000040
87-86-5	Pentachlorophenol	0.00027	U	0.016	0.00027
110-86-1	Pyridine	0.00035	U	0.0040	0.00035

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	77		30-110
367-12-4	2-Fluorophenol (Surr)	55		20-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		23-110
4165-60-0	Nitrobenzene-d5 (Surr)	83		28-110
4165-62-2	Phenol-d5 (Surr)	40		21-110
1718-51-0	Terphenyl-d14 (Surr)	77		48-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-209109/6	51202006.D
Level 2	STD2 240-209109/5	51202005.D
Level 3	STD3 240-209109/4	51202004.D
Level 4	STD4 240-209109/3	51202003.D
Level 5	STD5 240-209109/2	51202002.D
Level 6	STD6 240-209109/10	51202010.D
Level 7	STD7 240-209109/9	51202009.D
Level 8	STD8 240-209109/8	51202008.D
Level 9	STD9 240-209109/7	51202007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5642	0.7421 0.5598	0.5401 0.5765	0.5803 0.5430	0.5909	Ave		0.5871				11.1		15.0			
N-Nitrosodimethylamine	0.7662	0.7965 0.7511	0.7337 0.7602	0.7430 0.7433	0.7950	Ave		0.7611				3.1		15.0			
Pyridine	1.2915	1.4096 1.2500	1.1205 1.3294	1.2690 1.2796	1.3090	Ave		1.2823				6.4		15.0			
Benzaldehyde	1.1508	1.1936 1.1200	1.1425 1.1065	1.2064 1.0622	1.1789	Ave		1.1451				4.2		15.0			
Phenol	1.7548	1.7031 1.8078	1.7078 1.8190	1.8158 1.7969	1.8472	Ave		1.7815				3.0		15.0			
Aniline	2.1028	2.0258 2.1257	2.0787 2.0982	2.1436 2.0567	2.1448	Ave		2.0970				2.0		15.0			
Bis(2-chloroethyl)ether	1.2375	1.2610 1.2659	1.1684 1.3127	1.2665 1.2509	1.2956	Ave		1.2573				3.4		15.0			
2-Chlorophenol	1.3694	1.2683 1.3700	1.2995 1.3807	1.4262 1.3175	1.3747	Ave		1.3508				3.8		15.0			
n-Decane	1.9682	1.8830 1.9549	1.9482 1.9866	2.1077 1.8971	2.1181	Ave		1.9830				4.4		15.0			
1,3-Dichlorobenzene	1.5201	1.4242 1.4791	1.5117 1.4931	1.5512 1.4676	1.5510	Ave		1.4998				2.9		15.0			
1,4-Dichlorobenzene	1.5278	1.5618 1.5415	1.4825 1.5471	1.5652 1.4907	1.5474	Ave		1.5330				2.0		15.0			
Benzyl alcohol	0.9339	1.0220 0.9645	0.9077 0.9678	0.9545 0.9242	0.9863	Ave		0.9576				3.8		15.0			
1,2-Dichlorobenzene	1.4382	1.4166 1.4489	1.4394 1.4770	1.4698 1.3999	1.4965	Ave		1.4483				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.3141	1.2410 1.3504	1.1708 1.3759	1.3454 1.3649	1.3206	Ave		1.3104				5.4		15.0			
Indene	2.4129	2.2986 2.5037	2.2568 2.5826	2.4920 2.5489	2.4768	Ave		2.4465				4.7		15.0			
bis (2-chloroisopropyl) ether	2.6845	2.6598 2.6404	2.5138 2.6529	2.6821 2.5388	2.6542	Ave		2.6283				2.5		15.0			
Acetophenone	2.0649	2.0670 2.0532	1.9249 2.0971	2.0186 2.0317	2.0397	Ave		2.0371				2.5		15.0			
N-Nitrosodi-n-propylamine	1.0643	1.0670 1.0782	1.0255 1.0880	1.0671 1.0571	1.0958	Ave		1.0679			0.0500	2.0		15.0			
3 & 4 Methylphenol	1.3768	1.4758 1.3999	1.3568 1.4564	1.4264 1.4019	1.4263	Ave		1.4150				2.8		15.0			
Hexachloroethane	0.6337	0.6088 0.6270	0.5735 0.6292	0.6117 0.6093	0.6358	Ave		0.6161				3.3		15.0			
Nitrobenzene	0.4060	0.4103 0.4191	0.4275 0.4165	0.4165 0.4204	0.4245	Ave		0.4176				1.7		15.0			
Isophorone	0.7034	0.7052 0.6822	0.6907 0.6815	0.7366 0.6865	0.7255	Ave		0.7014				2.9		15.0			
2-Nitrophenol	0.1870	0.1802 0.1931	0.1846 0.1896	0.2063 0.1920	0.1808	Ave		0.1892				4.4		15.0			
2,4-Dimethylphenol	0.4132	0.4226 0.4141	0.4232 0.4117	0.4352 0.4130	0.4213	Ave		0.4193				1.9		15.0			
Bis(2-chloroethoxy)methane	0.3810	0.4009 0.3843	0.3799 0.3789	0.3909 0.3853	0.3835	Ave		0.3856				1.9		15.0			
Benzoic acid	0.2092	+++++ 0.2199	0.1147 0.2233	0.1464 0.2313	0.1727	Lin1	-0.301	0.2303							0.9980		0.9900
2,4-Dichlorophenol	0.2859	0.2635 0.2859	0.2851 0.2831	0.3006 0.2908	0.2970	Ave		0.2865				3.9		15.0			
1,2,4-Trichlorobenzene	0.3236	0.3461 0.3213	0.3427 0.3159	0.3312 0.3174	0.3129	Ave		0.3264				3.8		15.0			
Naphthalene	1.0684 1.0220	1.0307 1.0285	1.0077 1.0435	1.0075 1.0402	1.0275	Ave		1.0307				1.8		15.0			
4-Chloroaniline	0.4180	0.4167 0.3967	0.4123 0.3960	0.4336 0.4109	0.4147	Ave		0.4124				2.9		15.0			
2,6-Dichlorophenol	0.2757	0.2688 0.2824	0.2819 0.2833	0.2930 0.2857	0.2756	Ave		0.2808				2.6		15.0			
Hexachlorobutadiene	0.1856	0.1783 0.1873	0.1903 0.1862	0.1954 0.1830	0.1816	Ave		0.1860				2.9		15.0			
Caprolactam	0.0956	0.0948 0.1073	0.0947 0.1063	0.0992 0.1055	0.1023	Ave		0.1007				5.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3474	0.3452 0.3565	0.3519 0.3478	0.3506 0.3489	0.3509	Ave		0.3499				1.0		15.0			
2-Methylnaphthalene	0.7964 0.7027	0.6878 0.7131	0.7145 0.7182	0.7276 0.7389	0.6871	Ave		0.7207				4.6		15.0			
1-Methylnaphthalene	0.7978 0.6039	0.6092 0.6134	0.5982 0.6150	0.6305 0.6282	0.6162	Ave		0.6347				9.8		15.0			
Hexachlorocyclopentadiene	0.3577	0.2768 0.3652	0.3455 0.3588	0.3491 0.3629	0.3574	Ave		0.3467			0.0500	8.4		15.0			
1,2,4,5-Tetrachlorobenzene	0.5045	0.5285 0.4914	0.5635 0.5077	0.5192 0.5119	0.5115	Ave		0.5173				4.2		15.0			
2,4,6-Trichlorophenol	0.3666	0.2993 0.3653	0.3764 0.3684	0.3672 0.3668	0.3711	Ave		0.3601				6.9		15.0			
2,4,5-Trichlorophenol	0.3765	0.3463 0.3808	0.3839 0.3870	0.3500 0.3860	0.3481	Ave		0.3698				4.9		15.0			
1,1'-Biphenyl	1.3921 1.4411	1.4638 1.4336	1.4538 1.4691	1.5000 1.4731	1.4085	Ave		1.4483				2.3		15.0			
2-Chloronaphthalene	1.2963 1.0914	1.1018 1.0616	1.1106 1.0686	1.1182 1.0937	1.0768	Ave		1.1132				6.4		15.0			
2-Nitroaniline	0.4400	0.4362 0.4286	0.4447 0.4298	0.4425 0.4340	0.4447	Ave		0.4376				1.5		15.0			
Dimethyl phthalate	1.2422	1.3309 1.2171	1.2799 1.2401	1.2842 1.2561	1.2332	Ave		1.2605				2.9		15.0			
1,3-Dinitrobenzene	0.2126	0.1893 0.2139	0.2093 0.2109	0.1922 0.2168	0.2094	Ave		0.2068				4.9		15.0			
2,6-Dinitrotoluene	0.2889	0.2501 0.2744	0.2790 0.2829	0.3050 0.2828	0.2855	Ave		0.2811				5.5		15.0			
Acenaphthylene	1.9619 1.7943	1.7770 1.7895	1.7942 1.8061	1.7824 1.8384	1.7657	Ave		1.8122				3.3		15.0			
3-Nitroaniline	0.2899	0.3285 0.2892	0.3121 0.2902	0.3183 0.2991	0.3047	Ave		0.3040				4.8		15.0			
Acenaphthene	1.1348 1.1113	1.1134 1.1100	1.1515 1.1021	1.1055 1.1141	1.0936	Ave		1.1151				1.6		15.0			
2,4-Dinitrophenol	0.2075	0.1146 0.2178	0.1552 0.2228	0.1771 0.2273	0.1998	Lin1	-0.137	0.2241			0.0500				0.9990		0.9900
4-Nitrophenol	0.2927	0.2643 0.2841	0.2995 0.2897	0.2844 0.2853	0.2898	Ave		0.2862			0.0500	3.6		15.0			
2,4-Dinitrotoluene	0.3904	0.3772 0.4037	0.4000 0.4050	0.4009 0.4033	0.3778	Ave		0.3948				2.9		15.0			
Dibenzofuran	1.5719 1.5538	1.6000 1.5336	1.5884 1.5456	1.5205 1.5705	1.5195	Ave		1.5560				1.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.2961	0.2785 0.3049	0.2803 0.3061	0.2908 0.3169	0.2855	Ave		0.2949				4.6		15.0			
Diethyl phthalate	1.3227	1.3474 1.3377	1.3597 1.3445	1.2895 1.3412	1.2410	Ave		1.3230				3.0		15.0			
Hexadecane	1.0266	1.0760 1.0247	1.0954 1.0381	1.1021 1.0404	1.0859	Ave		1.0612				3.0		15.0			
4-Chlorophenyl phenyl ether	0.6106	0.6297 0.5980	0.6068 0.6084	0.5987 0.6137	0.6002	Ave		0.6083				1.7		15.0			
Fluorene	1.3857 1.2672	1.2542 1.2759	1.2488 1.3255	1.2806 1.3386	1.2154	Ave		1.2880				4.1		15.0			
4-Nitroaniline	0.3238	0.3350 0.3263	0.3381 0.3227	0.3096 0.3189	0.3340	Ave		0.3261				2.9		15.0			
4,6-Dinitro-2-methylphenol	0.1434	0.0815 0.1442	0.1181 0.1463	0.1183 0.1480	0.1374	Lin1	-0.073	0.1477							1.0000		0.9900
N-Nitrosodiphenylamine	0.5065	0.5118 0.5398	0.5330 0.5625	0.4988 0.5750	0.5122	Ave		0.5300				5.2		15.0			
1,2-Diphenylhydrazine	0.7515	0.7770 0.7681	0.8099 0.8007	0.7704 0.8012	0.7763	Ave		0.7819				2.6		15.0			
Azobenzene	0.7517	0.7770 0.7681	0.8099 0.8007	0.7704 0.8015	0.7763	Ave		0.7819				2.6		15.0			
4-Bromophenyl phenyl ether	0.1714	0.1827 0.1772	0.1800 0.1837	0.1765 0.1798	0.1722	Ave		0.1779				2.5		15.0			
Hexachlorobenzene	0.1652 0.1524	0.1659 0.1561	0.1686 0.1606	0.1556 0.1570	0.1596	Ave		0.1601				3.4		15.0			
Atrazine	0.1996	0.2295 0.1985	0.2171 0.2001	0.2217 0.1980	0.2192	Ave		0.2105				6.0		15.0			
Pentachlorophenol	0.1232	0.0775 0.1222	0.1082 0.1265	0.1058 0.1260	0.1206	Ave		0.1137				14.6		15.0			
n-Octadecane	0.6209	0.6008 0.6141	0.6864 0.6396	0.6572 0.6318	0.6621	Ave		0.6391				4.4		15.0			
Phenanthrene	1.2494 1.0810	1.0477 1.0812	1.1602 1.0820	1.0740 1.0690	1.1100	Ave		1.1060				5.6		15.0			
Anthracene	1.2748 1.1002	1.1308 1.1149	1.1383 1.1257	1.1159 1.1128	1.1179	Ave		1.1368				4.7		15.0			
Carbazole	0.9565	0.9817 0.9566	0.9917 0.9921	1.0016 0.9983	0.9898	Ave		0.9836				1.8		15.0			
Di-n-butyl phthalate	1.2397	1.2553 1.2611	1.3382 1.2904	1.2752 1.2952	1.2724	Ave		1.2784				2.4		15.0			
Fluoranthene	1.2442 1.1418	1.1496 1.1494	1.1625 1.1774	1.1563 1.1712	1.1453	Ave		1.1664				2.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.8138	0.7430 0.7961	0.7799 0.8021	0.7953 0.7854	0.8340	Ave		0.7937				3.3		15.0			
Pyrene	1.2698 1.2059	1.1790 1.2068	1.2032 1.1952	1.2619 1.1794	1.2211	Ave		1.2136				2.7		15.0			
Butyl benzyl phthalate	0.6019	0.6012 0.5950	0.5988 0.5907	0.6317 0.5821	0.6107	Ave		0.6015				2.5		15.0			
3,3'-Dichlorobenzidine	0.3811	0.3764 0.3796	0.3816 0.3787	0.3927 0.3706	0.3786	Ave		0.3799				1.6		15.0			
Benzo[a]anthracene	1.3675 1.0851	1.1421 1.1028	1.1269 1.1167	1.1520 1.1072	1.0998	Ave		1.1445				7.5		15.0			
Bis(2-ethylhexyl) phthalate	0.8629	0.8831 0.8583	0.8875 0.8628	0.8740 0.8651	0.8783	Ave		0.8715				1.2		15.0			
Chrysene	1.3061 1.0054	1.0613 1.0043	1.0225 1.0016	1.0403 0.9923	1.0206	Ave		1.0505				9.4		15.0			
Di-n-octyl phthalate	1.8174	1.8238 1.8344	1.8068 1.8209	1.8976 1.8554	1.8310	Ave		1.8359				1.6		15.0			
Benzo[b]fluoranthene	1.3313 1.1309	1.1880 1.1842	1.1123 1.2169	1.1241 1.1681	1.1375	Ave		1.1770				5.7		15.0			
Benzo[k]fluoranthene	1.2383 1.1510	1.1495 1.1280	1.1945 1.1181	1.2015 1.2064	1.1157	Ave		1.1670				3.8		15.0			
Benzo[a]pyrene	1.3587 1.1107	1.0931 1.1232	1.1496 1.1253	1.1212 1.1389	1.1083	Ave		1.1477				7.0		15.0			
Indeno[1,2,3-cd]pyrene	1.3312 1.2275	1.0453 1.1787	1.2918 1.1562	1.2621 1.1553	1.2465	Ave		1.2105				7.1		15.0			
Dibenz(a,h)anthracene	1.1603 1.0538	1.0415 1.0141	1.0833 1.0034	1.0685 1.0163	1.0811	Ave		1.0580				4.6		15.0			
Benzo[g,h,i]perylene	1.2137 1.0222	0.9922 0.9672	1.0745 0.9467	1.0893 0.9349	1.0554	Ave		1.0329				8.5		15.0			
2-Fluorophenol (Surr)	1.1819	1.0462 1.1732	1.1395 1.1875	1.2080 1.1398	1.1960	Ave		1.1590				4.5		15.0			
Phenol-d5 (Surr)	1.5746	1.5559 1.5962	1.4854 1.6021	1.6153 1.5423	1.5975	Ave		1.5712				2.7		15.0			
Nitrobenzene-d5 (Surr)	0.3913 0.4154	0.3974 0.4199	0.4049 0.4166	0.4159 0.4150	0.4152	Ave		0.4102				2.4		15.0			
2-Fluorobiphenyl (Surr)	1.3411 1.2131	1.2431 1.2090	1.2690 1.2217	1.2313 1.2349	1.1729	Ave		1.2373				3.8		15.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1231 0.1297	0.1171 0.1278	0.1284 0.1266	0.1149	Ave		0.1239				4.4		15.0			
Terphenyl-d14 (Surr)	0.8926 0.7677	0.8111 0.7687	0.8093 0.7494	0.8000 0.7523	0.7786	Ave		0.7922				5.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-209109/6	51202006.D
Level 2	STD2 240-209109/5	51202005.D
Level 3	STD3 240-209109/4	51202004.D
Level 4	STD4 240-209109/3	51202003.D
Level 5	STD5 240-209109/2	51202002.D
Level 6	STD6 240-209109/10	51202010.D
Level 7	STD7 240-209109/9	51202009.D
Level 8	STD8 240-209109/8	51202008.D
Level 9	STD9 240-209109/7	51202007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	275689	18132 447744	29710 596304	57021 682015	142759	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	374396	19460 600761	40364 786200	73006 933533	192074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	631052	34439 999792	61642 1374986	124698 1607148	316245	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1124618	58323 1791666	125700 2288878	237077 2668264	569626	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	857440	41609 1445913	93950 1881291	178422 2256903	446282	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1027466	49494 1700178	114354 2170105	210630 2583189	518161	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	604670	30808 1012462	64277 1357637	124452 1571064	313009	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	669121	30986 1095769	71488 1428028	140139 1654727	332123	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	961703	46006 1563615	107177 2054676	207101 2382741	511733	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	742727	34796 1183047	83163 1544301	152424 1843283	374708	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	746519	38157 1232946	81556 1600062	153797 1872320	373853	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	456339	24969 771403	49936 1001011	93788 1160779	238280	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	702712	34610 1158855	79183 1527618	144428 1758271	361540	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	642084	30319 1080119	64408 1423067	132197 1714347	319048	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Indene	DCB	Ave	2358016	112319 4005125	248304 5342149	489731 6402668	1196747	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
bis (2-chloroisopropyl) ether	DCB	Ave	1311699	64984 2111831	138290 2743780	263544 3188628	641238	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1008937	50501 1642164	105891 2168924	198351 2551763	492793	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	520052	26068 862406	56415 1125306	104852 1327681	264740	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3 & 4 Methylphenol	DCB	Ave	672751	36057 1119648	74643 1506350	140161 1760711	344577	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	309650	14874 501459	31547 650779	60110 765232	153611	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	786464	39856 1317992	88419 1720441	159686 2031935	407305	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1362593	68501 2145304	142858 2815251	282423 3318211	696156	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	362340	17504 607320	38187 783180	79089 928250	173483	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	800410	41053 1302241	87516 1700766	166836 1996050	404317	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethoxy)methane	NPT	Ave	738029	38946 1208552	78576 1565316	149864 1862446	367990	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	810490	+++++ 1383135	47441 1844980	112280 2235851	331521	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dichlorophenol	NPT	Ave	553964	25593 899115	58973 1169401	115245 1405392	285036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	626991	33619 1010245	70871 1305037	126984 1534182	300240	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	22365 1979988	100123 3234338	208412 4310837	386252 5027801	985967	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	809692	40481 1247358	85270 1635935	166223 1986229	397918	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	534073	26110 888076	58303 1170387	112350 1380905	264446	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	359555	17319 589042	39357 769356	74929 884316	174221	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	370501	18418 674796	39169 878478	76081 1019758	196380	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	673083	33532 1121194	72770 1436793	134413 1686528	336757	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16671 1361305	66806 2242291	147766 2967030	278957 3571483	659367	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	16700 1169975	59174 1928873	123720 2540788	241727 3036607	591294	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 396519	15358 676440	39437 857272	76820 1016646	199122	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 559287	29325 910222	64316 1213183	114244 1434062	285028	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 406453	16610 676644	42966 880279	80790 1027641	206760	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 417383	19214 705345	43815 924765	77001 1081395	193942	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	17162 1597602	81227 2655148	165933 3510453	330032 4126962	784844	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15981 1209854	61143 1966191	126766 2553371	246039 3064004	599996	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 487802	24206 793903	50756 1026996	97349 1215838	247806	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1377026	73855 2254208	146091 2963409	282554 3518948	687168	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 235661	10504 396196	23888 503992	42292 607321	116674	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 320299	13880 508183	31849 675925	67106 792203	159108	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	24186 1989130	98609 3314442	204791 4315733	392159 5150302	983887	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 321419	18228 535663	35629 693476	70041 837877	169782	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthene	ANT	Ave	13989 1231917	61786 2055921	131436 2633609	243231 3120972	609371	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 460008	12721 806607	35439 1064855	77915 1273700	222637	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Nitrophenol	ANT	Ave	 648902	29335 1052388	68372 1384423	125129 1598409	322953	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 432760	20929 747626	45657 967853	88217 1129883	210535	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	19378 1722510	88786 2840454	181307 3693266	334534 4399609	846694	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 328283	15455 564774	31991 731496	63981 887700	159107	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1466331	74770 2477510	155196 3212783	283722 3757356	691475	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 1138072	59708 1897937	125033 2480635	242495 2914743	605092	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	676883	34943 1107580	69258 1453923	131717 1719314	334439	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	17083 1404743	69600 2363135	142540 3167460	281752 3750046	677248	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	359012	18589 604295	38589 771159	68110 893382	186131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	568183	16160 940827	47944 1214131	92702 1455333	265128	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2006534	101418 3522304	216353 4667656	390776 5655745	988620	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine	PHN	Ave	1488475	76985 2506103	164379 3322076	301765 3940374	749086	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1489002	76985 2506103	164379 3322076	301765 3941667	749086	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	339533	18103 578243	36528 762305	69135 884222	166153	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	3521 301857	16438 509416	34225 666200	60931 771946	154057	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	790810	45480 1295434	88146 1660491	173646 1947806	423085	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	488231	15356 797257	43914 1049949	82849 1239476	232703	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	1229800	59532 2003791	139314 2653470	257437 3107100	638948	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	26631 2141091	103813 3527656	235487 4489114	420673 5257464	1071103	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	27173 2179270	112047 3637515	231024 4670199	437104 5472899	1078784	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1894594	97276 3121315	201289 4115920	392338 4909722	955108	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2455499	124382 4114794	271603 5353593	499473 6369615	1227881	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	26521 2261583	113907 3750140	235953 4884850	452907 5759915	1105228	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3157428	141037 5160766	311864 6769955	595883 7927220	1577602	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	25840 2339345	111903 3911220	240558 5044054	472731 5951917	1154903	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1167636	57063 1928513	119728 2492896	236648 2937383	577610	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1478681	71446 2460314	152571 3196285	294185 3740876	716146	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 209109

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/02/2015 12:51 Calibration End Date: 12/02/2015 16:01 Calibration ID: 31870

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzo[a]anthracene	CRY	Ave	27827 2104825	108399 3574339	225314 4713037	431572 5587476	1040205	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	 1673927	83824 2781864	177449 3641208	327418 4365760	830713	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	26579 1950300	100736 3255144	204426 4227137	389726 5007803	965256	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	 2980282	145185 4928630	301664 6299904	605803 7525663	1475127	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	22581 1854609	94572 3181644	185702 4210274	358856 4737601	916440	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	21003 1887570	91509 3030541	199437 3868510	383569 4893041	898821	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	23046 1821449	87013 3017722	191931 3893431	357941 4619436	892879	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	22580 2012961	83209 3166770	215679 4000336	402917 4685737	1004257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	19680 1728045	82909 2724660	180864 3471545	341116 4122190	870979	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	20587 1676374	78980 2598612	179402 3275351	347743 3791959	850289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	 577474	25561 938328	62688 1228207	118698 1431571	288952	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	 769371	38014 1276680	81714 1656995	158725 1937100	385947	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	8190 804778	38601 1320405	83743 1721036	159443 2005738	398444	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	16533 1344813	68984 2239231	144842 2919291	270918 3459468	653539	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	 137224	6830 240134	13371 305464	28259 354715	64015	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18164 1489143	76989 2491528	161798 3162623	299705 3796671	736420	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID (1): CCV 240-211628/2 CCVIS Instrument ID (1): A4HP7

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 12/20/2015 10:28

ANALYTE	RT	RESOLUTION (%)
Pyridine	3.09	100.0
2-Fluorophenol (Surr)	4.83	100.0
Phenol-d5 (Surr)	5.75	100.0
1,4-Dichlorobenzene	6.04	100.0
2-Methylphenol	6.28	100.0
3 & 4 Methylphenol	6.42	100.0
Hexachloroethane	6.47	100.0
Nitrobenzene-d5 (Surr)	6.51	100.0
Nitrobenzene	6.53	100.0
Hexachlorobutadiene	7.25	100.0
2,4,6-Trichlorophenol	7.97	100.0
2,4,5-Trichlorophenol	8.02	100.0
2-Fluorobiphenyl (Surr)	8.03	100.0
2,4-Dinitrotoluene	8.75	100.0
2,4,6-Tribromophenol (Surr)	9.25	100.0
Hexachlorobenzene	9.51	100.0
Pentachlorophenol	9.68	100.0
Terphenyl-d14 (Surr)	11.15	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-209109/11 Calibration Date: 12/02/2015 16:25

Instrument ID: A4HP7 Calib Start Date: 12/02/2015 12:51

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 12/02/2015 16:01

Lab File ID: 51202011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5871	0.5142		8.76	10.0	-12.4	50.0
Pyridine	Ave	1.282	1.260		9.83	10.0	-1.7	50.0
N-Nitrosodimethylamine	Ave	0.7611	0.6065		7.97	10.0	-20.3	50.0
Benzaldehyde	Ave	1.145	1.102		19.2	20.0	-3.8	50.0
Phenol	Ave	1.782	1.711		9.60	10.0	-4.0	20.0
Aniline	Ave	2.097	1.979		9.44	10.0	-5.6	50.0
Bis(2-chloroethyl)ether	Ave	1.257	1.175		9.35	10.0	-6.5	50.0
2-Chlorophenol	Ave	1.351	1.325		9.81	10.0	-1.9	50.0
1,3-Dichlorobenzene	Ave	1.500	1.450		9.67	10.0	-3.3	50.0
1,4-Dichlorobenzene	Ave	1.533	1.495		9.76	10.0	-2.4	20.0
Benzyl alcohol	Ave	0.9576	0.9436		9.85	10.0	-1.5	50.0
1,2-Dichlorobenzene	Ave	1.448	1.381		9.53	10.0	-4.7	50.0
2-Methylphenol	Ave	1.310	1.281		9.78	10.0	-2.2	50.0
Indene	Ave	2.447	2.200		18.0	20.0	-10.1	50.0
bis (2-chloroisopropyl) ether	Ave	2.628	2.536		9.65	10.0	-3.5	50.0
Acetophenone	Ave	2.037	1.970		9.67	10.0	-3.3	50.0
N-Nitrosodi-n-propylamine	Ave	1.068	1.028	0.0500	9.63	10.0	-3.7	50.0
3 & 4 Methylphenol	Ave	1.415	1.338		9.46	10.0	-5.4	50.0
Hexachloroethane	Ave	0.6161	0.6141		9.97	10.0	-0.3	50.0
Nitrobenzene	Ave	0.4176	0.3994		9.56	10.0	-4.4	50.0
Isophorone	Ave	0.7014	0.6894		9.83	10.0	-1.7	50.0
2-Nitrophenol	Ave	0.1892	0.1843		9.74	10.0	-2.6	20.0
2,4-Dimethylphenol	Ave	0.4193	0.3853		9.19	10.0	-8.1	50.0
Bis(2-chloroethoxy)methane	Ave	0.3856	0.3650		9.47	10.0	-5.3	50.0
Benzoic acid	Lin1		0.1986		18.6	20.0	-7.2	50.0
2,4-Dichlorophenol	Ave	0.2865	0.2703		9.44	10.0	-5.6	20.0
1,2,4-Trichlorobenzene	Ave	0.3264	0.3087		9.46	10.0	-5.4	50.0
Naphthalene	Ave	1.031	0.9772		9.48	10.0	-5.2	50.0
4-Chloroaniline	Ave	0.4124	0.3838		9.31	10.0	-6.9	50.0
2,6-Dichlorophenol	Ave	0.2808	0.2700		9.62	10.0	-3.8	50.0
Hexachlorobutadiene	Ave	0.1860	0.1816		9.77	10.0	-2.3	20.0
Caprolactam	Ave	0.1007	0.0938		18.6	20.0	-6.9	50.0
4-Chloro-3-methylphenol	Ave	0.3499	0.3394		9.70	10.0	-3.0	20.0
2-Methylnaphthalene	Ave	0.7207	0.6477		8.99	10.0	-10.1	50.0
1-Methylnaphthalene	Ave	0.6347	0.6077		9.57	10.0	-4.3	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5173	0.4849		9.37	10.0	-6.3	50.0
Hexachlorocyclopentadiene	Ave	0.3467	0.3507	0.0500	10.1	10.0	1.2	50.0
2,4,6-Trichlorophenol	Ave	0.3601	0.3597		9.99	10.0	-0.1	20.0
2,4,5-Trichlorophenol	Ave	0.3698	0.3776		10.2	10.0	2.1	50.0
1,1'-Biphenyl	Ave	1.448	1.406		9.71	10.0	-2.9	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-209109/11 Calibration Date: 12/02/2015 16:25

Instrument ID: A4HP7 Calib Start Date: 12/02/2015 12:51

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 12/02/2015 16:01

Lab File ID: 51202011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.113	1.048		9.41	10.0	-5.9	50.0
2-Nitroaniline	Ave	0.4376	0.4268		9.75	10.0	-2.5	50.0
Dimethyl phthalate	Ave	1.260	1.203		9.55	10.0	-4.5	50.0
1,3-Dinitrobenzene	Ave	0.2068	0.2040		9.87	10.0	-1.3	50.0
2,6-Dinitrotoluene	Ave	0.2811	0.2769		9.85	10.0	-1.5	50.0
Acenaphthylene	Ave	1.812	1.682		9.28	10.0	-7.2	50.0
3-Nitroaniline	Ave	0.3040	0.2913		9.58	10.0	-4.2	50.0
Acenaphthene	Ave	1.115	1.085		9.73	10.0	-2.7	20.0
2,4-Dinitrophenol	Lin1		0.2043	0.0500	18.8	20.0	-5.8	50.0
4-Nitrophenol	Ave	0.2862	0.2916	0.0500	20.4	20.0	1.9	50.0
2,4-Dinitrotoluene	Ave	0.3948	0.3833		9.71	10.0	-2.9	50.0
Dibenzofuran	Ave	1.556	1.467		9.43	10.0	-5.7	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.2949	0.2962		10.0	10.0	0.5	50.0
Diethyl phthalate	Ave	1.323	1.284		9.71	10.0	-2.9	50.0
4-Chlorophenyl phenyl ether	Ave	0.6083	0.5898		9.70	10.0	-3.0	50.0
Fluorene	Ave	1.288	1.228		9.53	10.0	-4.7	50.0
4-Nitroaniline	Ave	0.3261	0.3202		9.82	10.0	-1.8	50.0
4,6-Dinitro-2-methylphenol	Lin1		0.1393		19.4	20.0	-3.2	50.0
N-Nitrosodiphenylamine	Ave	0.5300	0.4746		17.9	20.0	-10.4	20.0
1,2-Diphenylhydrazine	Ave	0.7819	0.7556		9.66	10.0	-3.4	50.0
4-Bromophenyl phenyl ether	Ave	0.1779	0.1674		9.41	10.0	-5.9	50.0
Hexachlorobenzene	Ave	0.1601	0.1444		9.02	10.0	-9.8	50.0
Atrazine	Ave	0.2105	0.1752		16.6	20.0	-16.8	50.0
Pentachlorophenol	Ave	0.1137	0.1193		21.0	20.0	4.9	20.0
Phenanthrene	Ave	1.106	1.003		9.07	10.0	-9.3	50.0
Anthracene	Ave	1.137	1.048		9.22	10.0	-7.8	50.0
Carbazole	Ave	0.9836	0.8970		9.12	10.0	-8.8	50.0
Di-n-butyl phthalate	Ave	1.278	1.187		9.29	10.0	-7.1	50.0
Fluoranthene	Ave	1.166	1.081		9.27	10.0	-7.3	20.0
Benzidine	Ave	0.7937	0.7631		19.2	20.0	-3.9	50.0
Pyrene	Ave	1.214	1.147		9.45	10.0	-5.5	50.0
Butyl benzyl phthalate	Ave	0.6015	0.5804		9.65	10.0	-3.5	50.0
3,3'-Dichlorobenzidine	Ave	0.3799	0.3630		19.1	20.0	-4.5	50.0
Benzo[a]anthracene	Ave	1.144	1.066		9.31	10.0	-6.9	50.0
Bis(2-ethylhexyl) phthalate	Ave	0.8715	0.8343		9.57	10.0	-4.3	50.0
Chrysene	Ave	1.051	1.010		9.61	10.0	-3.9	50.0
Di-n-octyl phthalate	Ave	1.836	1.793		9.76	10.0	-2.4	20.0
Benzo[b]fluoranthene	Ave	1.177	1.081		9.19	10.0	-8.1	50.0
Benzo[k]fluoranthene	Ave	1.167	1.150		9.85	10.0	-1.5	50.0
Benzo[a]pyrene	Ave	1.148	1.062		9.25	10.0	-7.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.211	1.142		9.43	10.0	-5.7	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-209109/11 Calibration Date: 12/02/2015 16:25

Instrument ID: A4HP7 Calib Start Date: 12/02/2015 12:51

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 12/02/2015 16:01

Lab File ID: 51202011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibenz(a,h)anthracene	Ave	1.058	1.004		9.49	10.0	-5.1	50.0
Benzo[g,h,i]perylene	Ave	1.033	0.9760		9.45	10.0	-5.5	50.0
2-Fluorophenol (Surr)	Ave	1.159	1.231		10.6	10.0	6.3	50.0
Phenol-d5 (Surr)	Ave	1.571	1.638		10.4	10.0	4.3	50.0
Nitrobenzene-d5 (Surr)	Ave	0.4102	0.4287		10.5	10.0	4.5	50.0
2-Fluorobiphenyl (Surr)	Ave	1.237	1.273		10.3	10.0	2.9	50.0
2,4,6-Tribromophenol (Surr)	Ave	0.1239	0.1312		10.6	10.0	5.8	50.0
Terphenyl-d14 (Surr)	Ave	0.7922	0.7803		9.85	10.0	-1.5	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211628/2 Calibration Date: 12/20/2015 10:28

Instrument ID: A4HP7 Calib Start Date: 12/02/2015 12:51

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 12/02/2015 16:01

Lab File ID: 51220002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5871	0.5392		9.18	10.0	-8.2	50.0
N-Nitrosodimethylamine	Ave	0.7611	0.7373		9.69	10.0	-3.1	50.0
Pyridine	Ave	1.282	1.207		9.41	10.0	-5.9	50.0
Benzaldehyde	Ave	1.145	1.117		19.5	20.0	-2.5	50.0
Aniline	Ave	2.097	1.982		9.45	10.0	-5.5	50.0
Phenol	Ave	1.782	1.704		9.56	10.0	-4.4	20.0
Bis(2-chloroethyl)ether	Ave	1.257	1.221		9.71	10.0	-2.9	50.0
2-Chlorophenol	Ave	1.351	1.387		10.3	10.0	2.7	50.0
1,3-Dichlorobenzene	Ave	1.500	1.532		10.2	10.0	2.1	50.0
1,4-Dichlorobenzene	Ave	1.533	1.553		10.1	10.0	1.3	50.0
Benzyl alcohol	Ave	0.9576	0.9252		9.66	10.0	-3.4	50.0
1,2-Dichlorobenzene	Ave	1.448	1.450		10.0	10.0	0.1	50.0
Indene	Ave	2.447	2.291		18.7	20.0	-6.4	50.0
bis (2-chloroisopropyl) ether	Ave	2.628	2.683		10.2	10.0	2.1	50.0
2-Methylphenol	Ave	1.310	1.236		9.43	10.0	-5.7	50.0
Acetophenone	Ave	2.037	1.959		9.62	10.0	-3.8	50.0
N-Nitrosodi-n-propylamine	Ave	1.068	1.008	0.0500	9.44	10.0	-5.6	50.0
3 & 4 Methylphenol	Ave	1.415	1.340		9.47	10.0	-5.3	50.0
Hexachloroethane	Ave	0.6161	0.6087		9.88	10.0	-1.2	50.0
Nitrobenzene	Ave	0.4176	0.4006		9.59	10.0	-4.1	50.0
Isophorone	Ave	0.7014	0.6758		9.63	10.0	-3.7	50.0
2-Nitrophenol	Ave	0.1892	0.1951		10.3	10.0	3.1	20.0
2,4-Dimethylphenol	Ave	0.4193	0.4033		9.62	10.0	-3.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3856	0.3605		9.35	10.0	-6.5	50.0
Benzoic acid	Lin1		0.1920		18.0	20.0	-10.1	50.0
2,4-Dichlorophenol	Ave	0.2865	0.2882		10.1	10.0	0.6	20.0
1,2,4-Trichlorobenzene	Ave	0.3264	0.3157		9.67	10.0	-3.3	50.0
Naphthalene	Ave	1.031	0.997		9.68	10.0	-3.2	50.0
4-Chloroaniline	Ave	0.4124	0.4072		9.87	10.0	-1.3	50.0
2,6-Dichlorophenol	Ave	0.2808	0.2716		9.67	10.0	-3.3	50.0
Hexachlorobutadiene	Ave	0.1860	0.1861		10.0	10.0	0.0	20.0
Caprolactam	Ave	0.1007	0.0698		13.9	20.0	-30.7	50.0
4-Chloro-3-methylphenol	Ave	0.3499	0.3293		9.41	10.0	-5.9	20.0
2-Methylnaphthalene	Ave	0.7207	0.6814		9.45	10.0	-5.5	50.0
1-Methylnaphthalene	Ave	0.6347	0.5852		9.22	10.0	-7.8	50.0
Hexachlorocyclopentadiene	Ave	0.3467	0.3437	0.0500	9.92	10.0	-0.8	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5173	0.4756		9.19	10.0	-8.1	50.0
2,4,6-Trichlorophenol	Ave	0.3601	0.3682		10.2	10.0	2.2	20.0
2,4,5-Trichlorophenol	Ave	0.3698	0.3602		9.74	10.0	-2.6	50.0
1,1'-Biphenyl	Ave	1.448	1.404		9.69	10.0	-3.1	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211628/2 | Calibration Date: 12/20/2015 10:28

Instrument ID: A4HP7 | Calib Start Date: 12/02/2015 12:51

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 12/02/2015 16:01

Lab File ID: 51220002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.113	1.038		9.32	10.0	-6.8	50.0
2-Nitroaniline	Ave	0.4376	0.4260		9.73	10.0	-2.7	50.0
Dimethyl phthalate	Ave	1.260	1.196		9.49	10.0	-5.1	50.0
1,3-Dinitrobenzene	Ave	0.2068	0.2070		10.0	10.0	0.1	50.0
2,6-Dinitrotoluene	Ave	0.2811	0.2790		9.93	10.0	-0.7	50.0
Acenaphthylene	Ave	1.812	1.809		9.98	10.0	-0.2	50.0
3-Nitroaniline	Ave	0.3040	0.2893		9.52	10.0	-4.8	50.0
Acenaphthene	Ave	1.115	1.108		9.94	10.0	-0.6	20.0
2,4-Dinitrophenol	Lin1		0.2153	0.0500	19.8	20.0	-0.9	50.0
4-Nitrophenol	Ave	0.2862	0.2943	0.0500	20.6	20.0	2.8	50.0
2,4-Dinitrotoluene	Ave	0.3948	0.3900		9.88	10.0	-1.2	50.0
Dibenzofuran	Ave	1.556	1.521		9.78	10.0	-2.2	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.2949	0.2766		9.38	10.0	-6.2	50.0
Diethyl phthalate	Ave	1.323	1.274		9.63	10.0	-3.7	50.0
4-Chlorophenyl phenyl ether	Ave	0.6083	0.5333		8.77	10.0	-12.3	50.0
Fluorene	Ave	1.288	1.181		9.17	10.0	-8.3	50.0
4-Nitroaniline	Ave	0.3261	0.2854		8.75	10.0	-12.5	50.0
4,6-Dinitro-2-methylphenol	Lin1		0.1444		20.0	20.0	0.2	50.0
N-Nitrosodiphenylamine	Ave	0.5300	0.5058		19.1	20.0	-4.6	20.0
1,2-Diphenylhydrazine	Ave	0.7819	0.7523		9.62	10.0	-3.8	50.0
4-Bromophenyl phenyl ether	Ave	0.1779	0.1680		9.44	10.0	-5.6	50.0
Hexachlorobenzene	Ave	0.1601	0.1594		9.96	10.0	-0.4	50.0
Atrazine	Ave	0.2105	0.2060		19.6	20.0	-2.1	50.0
Pentachlorophenol	Ave	0.1137	0.1237		21.7	20.0	8.7	20.0
Phenanthrene	Ave	1.106	1.083		9.79	10.0	-2.1	50.0
Anthracene	Ave	1.137	1.113		9.79	10.0	-2.1	50.0
Carbazole	Ave	0.9836	1.008		10.2	10.0	2.5	50.0
Di-n-butyl phthalate	Ave	1.278	1.272		9.95	10.0	-0.5	50.0
Fluoranthene	Ave	1.166	1.147		9.83	10.0	-1.7	20.0
Benzidine	Ave	0.7937	0.8311		20.9	20.0	4.7	50.0
Pyrene	Ave	1.214	1.234		10.2	10.0	1.6	50.0
Butyl benzyl phthalate	Ave	0.6015	0.6370		10.6	10.0	5.9	50.0
3,3'-Dichlorobenzidine	Ave	0.3799	0.3637		19.1	20.0	-4.3	50.0
Bis(2-ethylhexyl) phthalate	Ave	0.8715	0.8688		9.97	10.0	-0.3	50.0
Benzo[a]anthracene	Ave	1.144	1.113		9.73	10.0	-2.7	50.0
Chrysene	Ave	1.051	1.073		10.2	10.0	2.2	50.0
Di-n-octyl phthalate	Ave	1.836	1.943		10.6	10.0	5.8	20.0
Benzo[b]fluoranthene	Ave	1.177	1.210		10.3	10.0	2.8	50.0
Benzo[k]fluoranthene	Ave	1.167	1.224		10.5	10.0	4.9	50.0
Benzo[a]pyrene	Ave	1.148	1.179		10.3	10.0	2.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.211	1.147		9.47	10.0	-5.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211628/2 Calibration Date: 12/20/2015 10:28

Instrument ID: A4HP7 Calib Start Date: 12/02/2015 12:51

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 12/02/2015 16:01

Lab File ID: 51220002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibenz(a,h)anthracene	Ave	1.058	0.9869		9.33	10.0	-6.7	50.0
Benzo[g,h,i]perylene	Ave	1.033	0.9293		9.00	10.0	-10.0	50.0
2-Fluorophenol (Surr)	Ave	1.159	1.185		10.2	10.0	2.3	50.0
Phenol-d5 (Surr)	Ave	1.571	1.495		9.52	10.0	-4.8	50.0
Nitrobenzene-d5 (Surr)	Ave	0.4102	0.4068		9.92	10.0	-0.8	50.0
2-Fluorobiphenyl (Surr)	Ave	1.237	1.161		9.38	10.0	-6.2	50.0
2,4,6-Tribromophenol (Surr)	Ave	0.1239	0.1130		9.12	10.0	-8.8	50.0
Terphenyl-d14 (Surr)	Ave	0.7922	0.7982		10.1	10.0	0.8	50.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211298/3-A

Matrix: Solid | Lab File ID: 51220005.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 12/17/2015 10:39

Sample wt/vol: 250(mL) | Date Analyzed: 12/20/2015 11:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211628 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00034	U	0.0040	0.00034
95-95-4	2,4,5-Trichlorophenol	0.00030	U	0.0040	0.00030
88-06-2	2,4,6-Trichlorophenol	0.00024	U	0.0040	0.00024
121-14-2	2,4-Dinitrotoluene	0.00025	U	0.0040	0.00025
118-74-1	Hexachlorobenzene	0.000085	U	0.00080	0.000085
87-68-3	Hexachlorobutadiene	0.00027	U	0.0040	0.00027
67-72-1	Hexachloroethane	0.00019	U	0.0040	0.00019
15831-10-4	3 & 4 Methylphenol	0.00080	U	0.0040	0.00080
95-48-7	2-Methylphenol	0.00017	U	0.0040	0.00017
98-95-3	Nitrobenzene	0.000040	U	0.0040	0.000040
87-86-5	Pentachlorophenol	0.00027	U	0.016	0.00027
110-86-1	Pyridine	0.00035	U	0.0040	0.00035

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		30-110
367-12-4	2-Fluorophenol (Surr)	57		20-110
118-79-6	2,4,6-Tribromophenol (Surr)	83		23-110
4165-60-0	Nitrobenzene-d5 (Surr)	80		28-110
4165-62-2	Phenol-d5 (Surr)	40		21-110
1718-51-0	Terphenyl-d14 (Surr)	78		48-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211298/4-A

Matrix: Solid | Lab File ID: 51220006.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 12/17/2015 10:39

Sample wt/vol: 250(mL) | Date Analyzed: 12/20/2015 12:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211628 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.0624		0.0040	0.00034
95-95-4	2,4,5-Trichlorophenol	0.0737		0.0040	0.00030
88-06-2	2,4,6-Trichlorophenol	0.0719		0.0040	0.00024
121-14-2	2,4-Dinitrotoluene	0.0685		0.0040	0.00025
118-74-1	Hexachlorobenzene	0.0748		0.00080	0.000085
87-68-3	Hexachlorobutadiene	0.0601		0.0040	0.00027
67-72-1	Hexachloroethane	0.0584		0.0040	0.00019
15831-10-4	3 & 4 Methylphenol	0.0602		0.0040	0.00080
95-48-7	2-Methylphenol	0.0630		0.0040	0.00017
98-95-3	Nitrobenzene	0.0696		0.0040	0.000040
87-86-5	Pentachlorophenol	0.144		0.016	0.00027
110-86-1	Pyridine	0.0510		0.0040	0.00035

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	80		30-110
367-12-4	2-Fluorophenol (Surr)	74		20-110
118-79-6	2,4,6-Tribromophenol (Surr)	90		23-110
4165-60-0	Nitrobenzene-d5 (Surr)	91		28-110
4165-62-2	Phenol-d5 (Surr)	51		21-110
1718-51-0	Terphenyl-d14 (Surr)	91		48-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS | Lab Sample ID: 240-59150-1 MS

Matrix: Solid (TCLP) | Lab File ID: 51220012.D

Analysis Method: 8270C | Date Collected: 12/15/2015 14:00

Extract. Method: 3510C | Date Extracted: 12/17/2015 10:39

Sample wt/vol: 250(mL) | Date Analyzed: 12/20/2015 14:20

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211628 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.0504		0.0040	0.00034
95-95-4	2,4,5-Trichlorophenol	0.0578		0.0040	0.00030
88-06-2	2,4,6-Trichlorophenol	0.0586		0.0040	0.00024
121-14-2	2,4-Dinitrotoluene	0.0573		0.0040	0.00025
118-74-1	Hexachlorobenzene	0.0626		0.00080	0.000085
87-68-3	Hexachlorobutadiene	0.0492		0.0040	0.00027
67-72-1	Hexachloroethane	0.0468		0.0040	0.00019
15831-10-4	3 & 4 Methylphenol	0.0486		0.0040	0.00080
95-48-7	2-Methylphenol	0.0498		0.0040	0.00017
98-95-3	Nitrobenzene	0.0542		0.0040	0.000040
87-86-5	Pentachlorophenol	0.128		0.016	0.00027
110-86-1	Pyridine	0.0447		0.0040	0.00035

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		30-110
367-12-4	2-Fluorophenol (Surr)	57		20-110
118-79-6	2,4,6-Tribromophenol (Surr)	70		23-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		28-110
4165-62-2	Phenol-d5 (Surr)	41		21-110
1718-51-0	Terphenyl-d14 (Surr)	75		48-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP7 Start Date: 12/02/2015 12:25

Analysis Batch Number: 209109 End Date: 12/02/2015 22:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-209109/1		12/02/2015 12:25	1	51202001.D	RXI-5SILMS 0.45(mm)
STD5 240-209109/2 IC		12/02/2015 12:51	1	51202002.D	RXI-5SILMS 0.45(mm)
STD4 240-209109/3 IC		12/02/2015 13:15	1	51202003.D	RXI-5SILMS 0.45(mm)
STD3 240-209109/4 IC		12/02/2015 13:39	1	51202004.D	RXI-5SILMS 0.45(mm)
STD2 240-209109/5 IC		12/02/2015 14:02	1	51202005.D	RXI-5SILMS 0.45(mm)
STD1 240-209109/6 IC		12/02/2015 14:26	1	51202006.D	RXI-5SILMS 0.45(mm)
STD9 240-209109/7 IC		12/02/2015 14:50	1	51202007.D	RXI-5SILMS 0.45(mm)
STD8 240-209109/8 IC		12/02/2015 15:14	1	51202008.D	RXI-5SILMS 0.45(mm)
STD7 240-209109/9 IC		12/02/2015 15:38	1	51202009.D	RXI-5SILMS 0.45(mm)
STD6 240-209109/10 ICIS		12/02/2015 16:01	1	51202010.D	RXI-5SILMS 0.45(mm)
ICV 240-209109/11		12/02/2015 16:25	1	51202011.D	RXI-5SILMS 0.45(mm)
STD9 240-209109/12 IC		12/02/2015 16:49	1		RXI-5SILMS 0.45(mm)
STD8 240-209109/13 IC		12/02/2015 17:13	1		RXI-5SILMS 0.45(mm)
STD7 240-209109/14 IC		12/02/2015 17:37	1		RXI-5SILMS 0.45(mm)
STD6 240-209109/15 IC		12/02/2015 18:00	1		RXI-5SILMS 0.45(mm)
STD5 240-209109/16 IC		12/02/2015 18:24	1		RXI-5SILMS 0.45(mm)
STD4 240-209109/17 IC		12/02/2015 18:48	1		RXI-5SILMS 0.45(mm)
STD3 240-209109/18 IC		12/02/2015 19:12	1		RXI-5SILMS 0.45(mm)
STD2 240-209109/19 IC		12/02/2015 19:36	1		RXI-5SILMS 0.45(mm)
ICV 240-209109/20		12/02/2015 19:59	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 20:23	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 20:47	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 21:11	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 21:34	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 21:58	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 22:22	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/02/2015 22:46	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP7 Start Date: 12/20/2015 10:08

Analysis Batch Number: 211628 End Date: 12/20/2015 20:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-211628/1		12/20/2015 10:08	1	51220001.D	RXI-5SILMS 0.45(mm)
CCV 240-211628/2 CCVIS		12/20/2015 10:28	1	51220002.D	RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 10:51	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 11:14	1		RXI-5SILMS 0.45(mm)
MB 240-211298/3-A		12/20/2015 11:38	1	51220005.D	RXI-5SILMS 0.45(mm)
LCS 240-211298/4-A		12/20/2015 12:01	1	51220006.D	RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 12:24	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 12:47	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 13:11	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 13:34	1		RXI-5SILMS 0.45(mm)
240-59150-1	D-SD-WC-1	12/20/2015 13:57	1	51220011.D	RXI-5SILMS 0.45(mm)
240-59150-1 MS	D-SD-WC-1 MS	12/20/2015 14:20	1	51220012.D	RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 14:44	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 15:07	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 15:31	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 15:54	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 16:18	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 16:42	1		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 17:05	10		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 17:29	50		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 17:52	20		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 18:16	10		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 18:39	20		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 19:03	20		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 19:26	20		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 19:50	25		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 20:13	25		RXI-5SILMS 0.45(mm)
ZZZZZ		12/20/2015 20:37	20		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211244 Batch Start Date: 12/16/15 18:35 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 12/17/15 10:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXPESTBUFF1 00046	EXpH(0-14) 00011	EXTCLPFILTERS 00029	EXTCLPHCLW 00050	AnalysisComment	
240-59150-1	D-SD-WC-1	1311, 3510C, 8270C	P	1 mL	1 mL	1	1 mL	MS for BNA, Pest, Herb; MS/MSD for Metals	

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211298 Batch Start Date: 12/17/15 10:39 Batch Analyst: Ross, Justin

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	FirstAdjustpH	SecondAdjustpH	exBNA TCLPspk 00005
240-59150-1	D-SD-WC-1	3510C, 8270C	P	5	250 mL	2 mL	2	12	
240-59150-1 MS	D-SD-WC-1	3510C, 8270C	P	5	250 mL	2 mL	2	12	1 mL
MB 240-211298/3-A		3510C, 8270C		5	250 mL	2 mL	2	12	
LCS 240-211298/4-A		3510C, 8270C		5	250 mL	2 mL	2	12	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00029					
240-59150-1	D-SD-WC-1	3510C, 8270C	P	1 mL					
240-59150-1 MS	D-SD-WC-1	3510C, 8270C	P	1 mL					
MB 240-211298/3-A		3510C, 8270C		1 mL					
LCS 240-211298/4-A		3510C, 8270C		1 mL					

Batch Notes	
Acid used for pH adjust Lot #	2284783
Base used for pH adjust Lot #	2199611
Na2SO4, Acidified Lot #	2305855
Na2SO4 Lot Number	2204508
NaCl Lot #	2290129
pH Paper Lot Number	2305859 2092070
Prep Solvent Lot #	2333900

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-SD-WC-1	240-59150-1	54	61	50	61	61	66
	MB 240-211448/17-A	65	73	76	82	43	91
	LCS 240-211448/18-A	79	84	80	73	35	87

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 51221010.D

Lab ID: LCS 240-211448/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	491	74	35-110	
bis (2-chloroisopropyl) ether	667	538	81	29-110	
2,4,5-Trichlorophenol	667	341	51	25-110	
2,4,6-Trichlorophenol	667	234	35	12-110	
2,4-Dichlorophenol	667	496	74	39-110	
2,4-Dimethylphenol	667	487	73	29-110	
2,4-Dinitrophenol	1330	311 J	23	10-110	
2,4-Dinitrotoluene	667	593	89	48-110	
2,6-Dinitrotoluene	667	557	84	45-110	
2-Chloronaphthalene	667	492	74	32-110	
2-Chlorophenol	667	529	79	37-110	
2-Methylnaphthalene	667	519	78	36-110	
2-Methylphenol	667	551	83	41-110	
2-Nitroaniline	667	561	84	45-110	
2-Nitrophenol	667	557	84	34-110	
3,3'-Dichlorobenzidine	1330	1130	85	28-110	
3-Nitroaniline	667	579	87	44-110	
4,6-Dinitro-2-methylphenol	1330	560	42	10-110	
4-Bromophenyl phenyl ether	667	581	87	39-110	
4-Chloro-3-methylphenol	667	554	83	48-110	
4-Chloroaniline	667	476	71	30-110	
4-Chlorophenyl phenyl ether	667	554	83	40-110	
4-Nitroaniline	667	621	93	48-110	
4-Nitrophenol	1330	888	67	28-110	
Acenaphthene	667	517	78	38-110	
Acenaphthylene	667	515	77	40-110	
Acetophenone	667	520	78	40-110	
Anthracene	667	568	85	48-110	
Atrazine	1330	1230	92	54-120	
Benzaldehyde	1330	1070	81	32-110	
Benzo[a]anthracene	667	587	88	50-110	
Benzo[a]pyrene	667	602	90	44-110	
Benzo[b]fluoranthene	667	605	91	43-110	
Benzo[g,h,i]perylene	667	599	90	51-110	
Benzo[k]fluoranthene	667	626	94	38-105	
Bis(2-chloroethoxy)methane	667	526	79	32-110	
Bis(2-chloroethyl)ether	667	517	78	34-110	
Bis(2-ethylhexyl) phthalate	667	625	94	50-110	
Butyl benzyl phthalate	667	622	93	51-110	
Caprolactam	1330	1220	92	44-114	
Carbazole	667	590	89	50-110	
Chrysene	667	596	89	50-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 51221010.D

Lab ID: LCS 240-211448/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibenz(a,h)anthracene	667	645	97	51-110	
Dibenzofuran	667	522	78	43-110	
Diethyl phthalate	667	562	84	52-110	
Dimethyl phthalate	667	546	82	50-110	
Di-n-butyl phthalate	667	624	94	51-110	
Di-n-octyl phthalate	667	602	90	48-110	
Fluoranthene	667	599	90	51-110	
Fluorene	667	501	75	46-110	
Hexachlorobenzene	667	571	86	43-110	
Hexachlorobutadiene	667	511	77	29-110	
Hexachlorocyclopentadiene	667	385	58	12-110	
Hexachloroethane	667	494	74	30-110	
Indeno[1,2,3-cd]pyrene	667	627	94	50-110	
Isophorone	667	526	79	36-110	
N-Nitrosodi-n-propylamine	667	527	79	38-110	
N-Nitrosodiphenylamine	1330	1150	86	46-110	
Naphthalene	667	505	76	36-110	
Nitrobenzene	667	521	78	32-110	
Pentachlorophenol	1330	770	58	10-110	
Phenanthrene	667	567	85	49-110	
Phenol	667	521	78	38-110	
Pyrene	667	577	87	49-110	
3 & 4 Methylphenol	667	521	78	40-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51221009.D Lab Sample ID: MB 240-211448/17-A

Matrix: Solid Date Extracted: 12/18/2015 07:26

Instrument ID: A4HP10 Date Analyzed: 12/21/2015 13:27

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-211448/18-A	51221010.D	12/21/2015 13:51
D-SD-WC-1	240-59150-1	51222024.D	12/22/2015 18:17

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51217001.D DFTPP Injection Date: 12/17/2015

Instrument ID: A4HP10 DFTPP Injection Time: 11:45

Analysis Batch No.: 211271

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	53.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	47.4	
70	Less than 2.0% of mass 69	0.3	(0.5) 1
127	25.0 - 75.0% of mass 198	47.3	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	24.1	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	13.5	
442	40.0 - 110.0% of mass 198	85.3	
443	15.0 - 24.0% of mass 442	16.5	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-211271/2	51217002.D	12/17/2015	12:07
	STD4 240-211271/3	51217003.D	12/17/2015	12:31
	STD3 240-211271/4	51217004.D	12/17/2015	12:55
	STD2 240-211271/5	51217005.D	12/17/2015	13:20
	STD1 240-211271/6	51217006.D	12/17/2015	13:44
	STD9 240-211271/7	51217007.D	12/17/2015	14:08
	STD8 240-211271/8	51217008.D	12/17/2015	14:32
	STD7 240-211271/9	51217009.D	12/17/2015	14:57
	STD6 240-211271/10	51217010.D	12/17/2015	15:21
	ICV 240-211271/11	51217011.D	12/17/2015	15:45

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51221001.D DFTPP Injection Date: 12/21/2015

Instrument ID: A4HP10 DFTPP Injection Time: 10:22

Analysis Batch No.: 211748

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0- 80.0% of mass 198	47.7
68	Less than 2.0% of mass 69	0.1 (0.2) 1
69	Mass 69 relative abundance	44.5
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	25.0 - 75.0% of mass 198	47.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0- 30.0% of mass 198	26.5
365	Greater than 0.75% of mass 198	3.7
441	Present, but less than mass 443	15.8
442	40.0 - 110.0% of mass 198	94.4
443	15.0 - 24.0% of mass 442	17.1 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-211748/2	51221002.D	12/21/2015	10:44
	CCV 240-211748/4	51221004.D	12/21/2015	11:31
	MB 240-211448/17-A	51221009.D	12/21/2015	13:27
	LCS 240-211448/18-A	51221010.D	12/21/2015	13:51

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab File ID: 51222001.D DFTPP Injection Date: 12/22/2015

Instrument ID: A4HP10 DFTPP Injection Time: 09:23

Analysis Batch No.: 211902

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.1	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	46.4	
70	Less than 2.0% of mass 69	0.4	(0.9) 1
127	25.0 - 75.0% of mass 198	49.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	24.2	
365	Greater than 0.75% of mass 198	3.8	
441	Present, but less than mass 443	13.9	
442	40.0 - 110.0% of mass 198	87.9	
443	15.0 - 24.0% of mass 442	15.9	(18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-211902/2	51222002.D	12/22/2015	09:44
D-SD-WC-1	240-59150-1	51222024.D	12/22/2015	18:17

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD6 240-211271/10 Date Analyzed: 12/17/2015 15:21

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51217010.D Heated Purge: (Y/N) N

Calibration ID: 32180

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		230450	5.98	910520	7.10	469081	8.60
UPPER LIMIT		460900	6.48	1821040	7.60	938162	9.10
LOWER LIMIT		115225	5.48	455260	6.60	234541	8.10
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-211271/11		246696	5.98	954864	7.10	518363	8.60
CCV 240-211748/2 CCVIS		210120	5.96	810495	7.08	412873	8.58
CCV 240-211902/2 CCVIS		191844	5.91	749250	7.02	396488	8.50

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD6 240-211271/10 Date Analyzed: 12/17/2015 15:21

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51217010.D Heated Purge: (Y/N) N

Calibration ID: 32180

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		905999	9.87	964931	12.45	759439	14.55
UPPER LIMIT		1811998	10.37	1929862	12.95	1518878	15.05
LOWER LIMIT		453000	9.37	482466	11.95	379720	14.05
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-211271/11		966915	9.87	1008197	12.45	771617	14.55
CCV 240-211748/2 CCVIS		761323	9.85	822207	12.42	617850	14.50
CCV 240-211902/2 CCVIS		736229	9.74	752835	12.24	585787	14.26

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211748/2 Date Analyzed: 12/21/2015 10:44

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51221002.D Heated Purge: (Y/N) N

Calibration ID: 32184

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		210120	5.96	810495	7.08	412873	8.58
UPPER LIMIT		420240	6.46	1620990	7.58	825746	9.08
LOWER LIMIT		105060	5.46	405248	6.58	206437	8.08
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211748/4		192335	5.96	762760	7.08	397588	8.58
MB 240-211448/17-A		173856	5.96	640207	7.08	336012	8.58
LCS 240-211448/18-A		164270	5.96	651838	7.08	361889	8.58

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211748/2 Date Analyzed: 12/21/2015 10:44

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51221002.D Heated Purge: (Y/N) N

Calibration ID: 32184

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		761323	9.85	822207	12.42	617850	14.50
UPPER LIMIT		1522646	10.35	1644414	12.92	1235700	15.00
LOWER LIMIT		380662	9.35	411104	11.92	308925	14.00
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211748/4		760495	9.84	784144	12.42	631635	14.50
MB 240-211448/17-A		646737	9.84	669115	12.42	530170	14.49
LCS 240-211448/18-A		671652	9.84	712751	12.42	551991	14.50

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211902/2 Date Analyzed: 12/22/2015 09:44

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51222002.D Heated Purge: (Y/N) N

Calibration ID: 32184

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		191844	5.91	749250	7.02	396488	8.50
UPPER LIMIT		383688	6.41	1498500	7.52	792976	9.00
LOWER LIMIT		95922	5.41	374625	6.52	198244	8.00
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-59150-1	D-SD-WC-1	178208	5.91	696251	7.02	382734	8.50

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211902/2 Date Analyzed: 12/22/2015 09:44

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 51222002.D Heated Purge: (Y/N) N

Calibration ID: 32184

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		736229	9.74	752835	12.24	585787	14.26
UPPER LIMIT		1472458	10.24	1505670	12.74	1171574	14.76
LOWER LIMIT		368115	9.24	376418	11.74	292894	13.76
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-59150-1	D-SD-WC-1	708249	9.74	675921	12.24	554133	14.27

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: 51222024.D

Analysis Method: 8270D | Date Collected: 12/15/2015 14:00

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 29.61(g) | Date Analyzed: 12/22/2015 18:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 24.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211902 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	51	J	130	9.4
108-60-1	bis (2-chloroisopropyl) ether	26	U	270	26
95-95-4	2,4,5-Trichlorophenol	67	U	400	67
88-06-2	2,4,6-Trichlorophenol	24	U	400	24
120-83-2	2,4-Dichlorophenol	54	U	400	54
105-67-9	2,4-Dimethylphenol	54	U	400	54
51-28-5	2,4-Dinitrophenol	56	U	890	56
121-14-2	2,4-Dinitrotoluene	46	U	540	46
606-20-2	2,6-Dinitrotoluene	56	U	540	56
91-58-7	2-Chloronaphthalene	1.2	U	130	1.2
95-57-8	2-Chlorophenol	22	U	130	22
91-57-6	2-Methylnaphthalene	200		18	1.3
95-48-7	2-Methylphenol	30	U	540	30
88-74-4	2-Nitroaniline	24	U	540	24
88-75-5	2-Nitrophenol	22	U	130	22
91-94-1	3,3'-Dichlorobenzidine	48	U	270	48
99-09-2	3-Nitroaniline	43	U	540	43
534-52-1	4,6-Dinitro-2-methylphenol	25	U	400	25
101-55-3	4-Bromophenyl phenyl ether	35	U	130	35
59-50-7	4-Chloro-3-methylphenol	56	U	400	56
106-47-8	4-Chloroaniline	46	U	400	46
7005-72-3	4-Chlorophenyl phenyl ether	35	U	130	35
100-01-6	4-Nitroaniline	70	U	540	70
100-02-7	4-Nitrophenol	46	U	890	46
83-32-9	Acenaphthene	490		18	2.0
208-96-8	Acenaphthylene	130		18	0.94
98-86-2	Acetophenone	25	U	270	25
120-12-7	Anthracene	330		18	2.1
1912-24-9	Atrazine	24	U	540	24
100-52-7	Benzaldehyde	32	U	270	32
56-55-3	Benzo[a]anthracene	890		18	1.7
50-32-8	Benzo[a]pyrene	820		18	1.7
205-99-2	Benzo[b]fluoranthene	1100		18	1.6
191-24-2	Benzo[g,h,i]perylene	460		18	0.94

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: 51222024.D

Analysis Method: 8270D | Date Collected: 12/15/2015 14:00

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 29.61(g) | Date Analyzed: 12/22/2015 18:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 24.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211902 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	440		18	1.8
111-91-1	Bis(2-chloroethoxy)methane	59	U	270	59
111-44-4	Bis(2-chloroethyl)ether	5.4	U	270	5.4
117-81-7	Bis(2-ethylhexyl) phthalate	51	U	190	51
85-68-7	Butyl benzyl phthalate	27	U	190	27
105-60-2	Caprolactam	99	U	890	99
86-74-8	Carbazole	130		130	73
218-01-9	Chrysene	1000		18	3.0
53-70-3	Dibenz(a,h)anthracene	120		18	1.8
132-64-9	Dibenzofuran	280		130	1.8
84-66-2	Diethyl phthalate	43	U	190	43
131-11-3	Dimethyl phthalate	46	U	190	46
84-74-2	Di-n-butyl phthalate	40	U	190	40
117-84-0	Di-n-octyl phthalate	21	U	190	21
206-44-0	Fluoranthene	2000		18	1.5
86-73-7	Fluorene	370		18	1.4
118-74-1	Hexachlorobenzene	5.6	U	18	5.6
87-68-3	Hexachlorobutadiene	15	U	130	15
77-47-4	Hexachlorocyclopentadiene	22	U	890	22
67-72-1	Hexachloroethane	24	U	130	24
193-39-5	Indeno[1,2,3-cd]pyrene	410		18	0.94
78-59-1	Isophorone	35	U	130	35
621-64-7	N-Nitrosodi-n-propylamine	17	U	130	17
86-30-6	N-Nitrosodiphenylamine	56	U	130	56
91-20-3	Naphthalene	830		18	2.2
98-95-3	Nitrobenzene	5.9	U	270	5.9
87-86-5	Pentachlorophenol	24	U	400	24
85-01-8	Phenanthrene	1700		18	2.0
108-95-2	Phenol	20	U	130	20
129-00-0	Pyrene	2200		18	1.2
15831-10-4	3 & 4 Methylphenol	54	U	1100	54

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: 51222024.D

Analysis Method: 8270D | Date Collected: 12/15/2015 14:00

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 29.61(g) | Date Analyzed: 12/22/2015 18:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 24.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211902 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	66		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	50		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	61		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	61		10-110

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-211271/6	51217006.D
Level 2	STD2 240-211271/5	51217005.D
Level 3	STD3 240-211271/4	51217004.D
Level 4	STD4 240-211271/3	51217003.D
Level 5	STD5 240-211271/2	51217002.D
Level 6	STD6 240-211271/10	51217010.D
Level 7	STD7 240-211271/9	51217009.D
Level 8	STD8 240-211271/8	51217008.D
Level 9	STD9 240-211271/7	51217007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6425	0.8237 0.6016	0.7053 0.6190	0.7149 0.6400	0.6391	Ave		0.6733				10.8		20.0			
N-Nitrosodimethylamine	1.0023	0.9681 0.9373	0.9889 0.9411	0.9101 0.9774	0.9075	Ave		0.9541				3.7		20.0			
Pyridine	1.7776	2.0182 1.7157	1.7549 1.7040	1.8389 1.7757	1.7804	Ave		1.7957				5.5		20.0			
Benzaldehyde	1.3947	1.4091 1.2209	1.3349 1.1938	1.3944 1.2097	1.3368	Ave		1.3118			0.0100	6.9		20.0			
Phenol	1.9088	1.9388 1.7857	1.8462 1.8266	2.0412 1.9016	1.8638	Ave		1.8891			0.8000	4.2		20.0			
Aniline	2.3975	2.5010 2.2774	2.3526 2.2846	2.5046 2.4031	2.3140	Ave		2.3794				3.8		20.0			
Bis(2-chloroethyl)ether	1.5968	1.6136 1.4769	1.5752 1.4698	1.6472 1.5160	1.4831	Ave		1.5473			0.7000	4.5		20.0			
2-Chlorophenol	1.2887	1.2044 1.2171	1.2206 1.2080	1.3451 1.2828	1.2098	Ave		1.2471			0.8000	4.2		20.0			
n-Decane	2.0537	2.0418 1.9243	2.0874 1.9060	2.1076 1.9944	2.0424	Ave		2.0197				3.6		20.0			
1,3-Dichlorobenzene	1.3663	1.3972 1.3116	1.3865 1.3096	1.3949 1.3778	1.3665	Ave		1.3638				2.6		20.0			
1,4-Dichlorobenzene	1.4343	1.3615 1.3290	1.4427 1.3345	1.4789 1.3493	1.3884	Ave		1.3898				4.0		20.0			
Benzyl alcohol	0.9422	0.9511 0.8978	0.8217 0.8923	0.9538 0.9175	0.9068	Ave		0.9104				4.7		20.0			
1,2-Dichlorobenzene	1.3168	1.3956 1.2431	1.2984 1.2576	1.3168 1.3230	1.3103	Ave		1.3077				3.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.3184	1.2404 1.2206	1.3417 1.2469	1.2769 1.2895	1.2784	Ave		1.2766			0.7000	3.2		20.0			
bis (2-chloroisopropyl) ether	2.4769	2.6525 2.2648	2.6014 2.1478	2.7228 2.2172	2.5651	Ave		2.4561				8.9		20.0			
Indene	2.2688	2.4047 2.1383	2.2792 2.0885	2.4917 2.1174	2.2269	Ave		2.2519				6.3		20.0			
3 & 4 Methylphenol	1.3338	1.3052 1.2339	1.3825 1.2393	1.3201 1.2913	1.2996	Ave		1.3007				3.7		20.0			
N-Nitrosodi-n-propylamine	1.0561	1.1419 0.9724	1.0347 0.9572	1.1646 0.9969	1.0439	Ave		1.0460			0.5000	7.2		20.0			
Acetophenone	1.9208	1.8518 1.7912	1.9266 1.7621	2.1309 1.7962	1.9089	Ave		1.8861			0.0100	6.2		20.0			
Hexachloroethane	0.6252	0.5687 0.5770	0.6492 0.5856	0.6167 0.6175	0.6358	Ave		0.6094			0.3000	4.8		20.0			
Nitrobenzene	0.4497	0.4538 0.4462	0.4491 0.4524	0.4664 0.4366	0.4620	Ave		0.4520			0.2000	2.0		20.0			
Isophorone	0.8457	0.7790 0.8226	0.7940 0.8222	0.8219 0.8221	0.8220	Ave		0.8162			0.4000	2.5		20.0			
2-Nitrophenol	0.1715	0.1218 0.1685	0.1286 0.1756	0.1464 0.1707	0.1598	Ave		0.1554			0.1000	13.4		20.0			
2,4-Dimethylphenol	0.3617	0.3545 0.3519	0.3738 0.3566	0.3798 0.3470	0.3505	Ave		0.3595			0.2000	3.2		20.0			
Benzoic acid	0.1965	0.0905 0.1956	0.1169 0.1998	0.1407 0.2043	0.1648	Lin1	-0.157	0.2026							0.9980		0.9900
Bis(2-chloroethoxy)methane	0.4720	0.4474 0.4379	0.4800 0.4487	0.4768 0.4468	0.4780	Ave		0.4609			0.3000	3.8		20.0			
2,4-Dichlorophenol	0.2657	0.2475 0.2626	0.2463 0.2644	0.2631 0.2598	0.2682	Ave		0.2597			0.2000	3.2		20.0			
1,2,4-Trichlorobenzene	0.2928	0.2843 0.2854	0.3057 0.2918	0.3123 0.2805	0.2990	Ave		0.2940				3.8		20.0			
Naphthalene	0.8657 0.9351	0.9846 0.9070	0.9541 0.9039	0.9522 0.9096	0.9342	Ave		0.9274			0.7000	3.8		20.0			
4-Chloroaniline	0.4076	0.4284 0.3951	0.4164 0.3987	0.4026 0.3997	0.4094	Ave		0.4072			0.0100	2.7		20.0			
2,6-Dichlorophenol	0.2622	0.2410 0.2558	0.2575 0.2605	0.2656 0.2570	0.2612	Ave		0.2576				2.9		20.0			
Hexachlorobutadiene	0.1959	0.1759 0.1916	0.1946 0.1932	0.2172 0.1896	0.1999	Ave		0.1947			0.0100	5.9		20.0			
Caprolactam	0.1042	0.1048 0.1066	0.1032 0.1064	0.0999 0.1052	0.1060	Ave		0.1045			0.0100	2.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3005	0.2524 0.3028	0.3032 0.2970	0.3153 0.3003	0.3085	Ave		0.2975			0.2000	6.4		20.0			
2-Methylnaphthalene	0.7246 0.6685	0.6145 0.6412	0.6280 0.6517	0.6669 0.6425	0.6518	Ave		0.6544			0.4000	4.8		20.0			
1-Methylnaphthalene	0.6059 0.5650	0.5360 0.5650	0.5894 0.5651	0.5943 0.5612	0.5817	Ave		0.5737				3.7		20.0			
Hexachlorocyclopentadiene	0.3618	0.2278 0.3689	0.2780 0.3709	0.3017 0.3657	0.3253	Ave		0.3250			0.0500	16.1		20.0			
1,2,4,5-Tetrachlorobenzene	0.5685	0.5324 0.5640	0.5877 0.5417	0.5665 0.5449	0.5546	Ave		0.5575			0.0100	3.2		20.0			
2,4,6-Trichlorophenol	0.3846	0.3324 0.3768	0.3124 0.3661	0.3562 0.3530	0.3535	Ave		0.3544			0.2000	6.6		20.0			
2,4,5-Trichlorophenol	0.4135	0.3411 0.4013	0.3797 0.3644	0.3683 0.3745	0.3555	Ave		0.3748			0.2000	6.3		20.0			
1,1'-Biphenyl	1.4989 1.5768	1.5918 1.5341	1.5561 1.4646	1.5538 1.4705	1.4587	Ave		1.5228			0.0100	3.3		20.0			
2-Chloronaphthalene	1.3321 1.1367	1.1506 1.1255	1.1513 1.0776	1.1673 1.0543	1.1013	Ave		1.1441			0.8000	7.0		20.0			
2-Nitroaniline	0.4840	0.4037 0.4667	0.3939 0.4556	0.4591 0.4461	0.4531	Ave		0.4453			0.0100	6.9		20.0			
Dimethyl phthalate	1.2933	1.1728 1.2688	1.2380 1.2180	1.2846 1.2340	1.2304	Ave		1.2425			0.0100	3.2		20.0			
1,3-Dinitrobenzene	0.2300	0.1261 0.2149	0.1396 0.2090	0.1704 0.2110	0.1882	Lin1	-0.060	0.2159							0.9980		0.9900
2,6-Dinitrotoluene	0.2883	0.1761 0.2868	0.2420 0.2672	0.2796 0.2583	0.2592	Ave		0.2572				14.2		20.0			
Acenaphthylene	1.8402 1.9709	1.6982 1.9241	1.7274 1.8941	1.8941 1.9030	1.8421	Ave		1.8549			0.9000	4.9		20.0			
3-Nitroaniline	0.3634	0.2491 0.3546	0.3209 0.3321	0.3073 0.3321	0.3156	Ave		0.3219			0.0100	10.9		20.0			
2,4-Dinitrophenol	0.1648	0.0389 0.1742	0.0550 0.1747	0.0839 0.1698	0.1059	Lin1	-0.213	0.1736			0.0100				0.9900		0.9900
Acenaphthene	1.2517 1.1760	1.1561 1.1272	1.1533 1.0780	1.2310 1.0870	1.1166	Ave		1.1530			0.9000	5.2		20.0			
4-Nitrophenol	0.2413	0.1765 0.2331	0.1715 0.2214	0.2091 0.2191	0.2159	Ave		0.2110				11.8		20.0			
2,4-Dinitrotoluene	0.3846	0.2678 0.3709	0.2928 0.3566	0.3430 0.3593	0.3282	Ave		0.3379			0.2000	11.8		20.0			
Dibenzofuran	1.9069 1.7917	1.8077 1.7402	1.6217 1.6848	1.8024 1.6680	1.6415	Ave		1.7405			0.8000	5.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3596	0.2844 0.3564	0.3004 0.3440	0.3391 0.3416	0.2975	Ave		0.3279			0.0100	8.9		20.0			
Diethyl phthalate	1.5183	1.4074 1.4629	1.5007 1.3870	1.4775 1.3864	1.4316	Ave		1.4465			0.0100	3.5		20.0			
Hexadecane	0.6218	0.6088 0.5957	0.6195 0.5820	0.6698 0.5755	0.6459	Ave		0.6149				5.2		20.0			
4-Chlorophenyl phenyl ether	0.6846	0.6523 0.6855	0.6481 0.6595	0.6825 0.6611	0.6459	Ave		0.6649			0.4000	2.5		20.0			
4-Nitroaniline	0.3545	0.2424 0.3443	0.2712 0.3144	0.3219 0.3163	0.3200	Ave		0.3106			0.0100	11.9		20.0			
Fluorene	1.7384 1.4640	1.4485 1.4273	1.4663 1.3634	1.4646 1.3696	1.3818	Ave		1.4582			0.9000	7.8		20.0			
4,6-Dinitro-2-methylphenol	0.1069	0.0441 0.1087	0.0517 0.1114	0.0638 0.1123	0.0832	Lin1	-0.108	0.1119			0.0100				0.9950		0.9900
N-Nitrosodiphenylamine	0.5380	0.5132 0.5332	0.5251 0.5266	0.5439 0.5266	0.5095	Ave		0.5270			0.0100	2.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.9689	0.9478 0.9320	0.9573 0.9324	1.0118 0.9338	0.9771	Ave		0.9595				2.9		20.0			
Azobenzene	0.9689	0.9623 0.9320	0.9573 0.9324	1.0118 0.9338	0.9771	Ave		0.9595				2.9		20.0			
4-Bromophenyl phenyl ether	0.1945	0.1749 0.1888	0.1995 0.1940	0.1899 0.1949	0.1900	Ave		0.1908			0.1000	3.8		20.0			
Hexachlorobenzene	0.2109 0.2039	0.1932 0.1933	0.1998 0.1953	0.1850 0.1936	0.1953	Ave		0.1967			0.1000	3.8		20.0			
Atrazine	0.1951	0.1639 0.1844	0.1760 0.1827	0.1881 0.1826	0.1903	Ave		0.1829			0.0100	5.2		20.0			
Pentachlorophenol	0.1394	0.0863 0.1401	0.1167 0.1458	0.1091 0.1452	0.1340	Ave		0.1271			0.0500	16.7		20.0			
n-Octadecane	1.2673	1.1825 1.2170	1.2175 1.1135	1.3072 1.1267	1.2089	Ave		1.2051				5.4		20.0			
Phenanthrene	1.1922 1.0321	0.9543 1.0167	1.0338 1.0282	1.0282 1.0418	1.0158	Ave		1.0381			0.7000	6.1		20.0			
Anthracene	0.9617 1.0490	0.8924 1.0256	0.9740 1.0320	1.0081 1.0331	1.0474	Ave		1.0026			0.7000	5.1		20.0			
Carbazole	1.0358	0.9713 1.0323	1.0039 1.0178	1.0108 1.0230	1.0145	Ave		1.0137			0.0100	2.0		20.0			
Di-n-butyl phthalate	1.4031	1.2054 1.3581	1.2726 1.3453	1.3067 +++++	1.3225	Ave		1.3163			0.0100	4.8		20.0			
Fluoranthene	1.0457 1.2490	1.0168 1.2354	1.1514 1.2717	1.1861 +++++	1.1796	Ave		1.1670			0.6000	8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7406	0.3976 0.6960	0.4805 0.7285	0.5745 +++++	0.6260	Lin1	-0.431	0.7268							0.9980		0.9900
Pyrene	1.4554 1.2347	1.1246 1.2256	1.1943 1.2478	1.2214 1.2878	1.2003	Ave		1.2435			0.6000	7.3		20.0			
Butyl benzyl phthalate	0.5996	0.4675 0.5772	0.5126 0.5631	0.5291 0.5898	0.5727	Ave		0.5514			0.0100	8.1		20.0			
3,3'-Dichlorobenzidine	0.3920	0.2398 0.3920	0.3078 0.4133	0.3299 0.4400	0.3541	Ave		0.3586			0.0100	18.1		20.0			
Bis(2-ethylhexyl) phthalate	0.8298	0.7039 0.8029	0.7305 0.7920	0.7871 0.8237	0.8135	Ave		0.7854			0.0100	5.7		20.0			
Benzo[a]anthracene	1.2921 1.0852	0.9743 1.0792	1.0769 1.0943	1.0917 1.1447	1.0717	Ave		1.1011			0.8000	7.6		20.0			
Chrysene	1.2448 1.0017	0.9333 1.0119	1.0327 1.0116	1.0127 1.0636	1.0099	Ave		1.0358			0.7000	8.3		20.0			
Di-n-octyl phthalate	1.8543	1.3564 1.8331	1.6264 1.9136	1.7531 1.8825	1.7124	Ave		1.7415			0.0100	10.5		20.0			
Benzo[b]fluoranthene	1.0892 1.2620	0.9369 1.2080	1.0845 1.3227	1.1601 1.2678	1.1943	Ave		1.1695			0.7000	10.1		20.0			
Benzo[k]fluoranthene	1.2490 1.2439	1.1281 1.2756	1.2648 1.3307	1.3417 1.3431	1.2269	Ave		1.2671			0.7000	5.4		20.0			
Benzo[a]pyrene	0.8350 1.1715	1.0166 1.1711	1.0708 1.2517	1.1138 1.2389	1.1116	Ave		1.1090			0.7000	11.5		20.0			
Indeno[1,2,3-cd]pyrene	1.0450 1.2162	0.9663 1.2017	1.0224 1.3124	1.1580 1.3009	1.2020	Ave		1.1583			0.5000	10.5		20.0			
Dibenz(a,h)anthracene	0.7768 0.9812	0.8247 0.9828	0.7760 1.0556	0.8936 1.0840	0.9369	Ave		0.9235			0.4000	12.4		20.0			
Benzo[g,h,i]perylene	1.0535 0.9947	0.8274 1.0122	0.9801 1.0763	1.0344 1.0743	0.9658	Ave		1.0021			0.5000	7.6		20.0			
2-Fluorophenol (Surr)	1.3081	1.2915 1.2744	1.2568 1.2514	1.3444 1.3101	1.2612	Ave		1.2872				2.5		20.0			
Phenol-d5 (Surr)	1.6898	1.5086 1.6026	1.6397 1.5786	1.7786 1.6489	1.6105	Ave		1.6322				4.9		20.0			
Nitrobenzene-d5 (Surr)	0.4059 0.4628	0.4535 0.4532	0.4560 0.4625	0.4732 0.4541	0.4634	Ave		0.4538				4.2		20.0			
2-Fluorobiphenyl (Surr)	1.5279 1.3527	1.2696 1.3255	1.4245 1.2643	1.3539 1.2728	1.2692	Ave		1.3400				6.6		20.0			
2,4,6-Tribromophenol (Surr)	0.1775	0.1312 0.1785	0.1409 0.1793	0.1519 0.1777	0.1579	Ave		0.1619				11.8		20.0			
Terphenyl-d14 (Surr)	0.7574 0.7615	0.7316 0.7594	0.7517 0.7803	0.7366 0.8188	0.7705	Ave		0.7631				3.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-211271/6	51217006.D
Level 2	STD2 240-211271/5	51217005.D
Level 3	STD3 240-211271/4	51217004.D
Level 4	STD4 240-211271/3	51217003.D
Level 5	STD5 240-211271/2	51217002.D
Level 6	STD6 240-211271/10	51217010.D
Level 7	STD7 240-211271/9	51217009.D
Level 8	STD8 240-211271/8	51217008.D
Level 9	STD9 240-211271/7	51217007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	370186	22396 505258	39321 728722	71475 853205	172756	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577430	26323 787168	55131 1107952	90985 1303138	245340	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	1024117	54875 1440906	97831 2006144	183848 2367437	481305	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1607097	76624 2050742	148837 2810994	278818 3225598	722760	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	1099709	52717 1499658	102922 2150476	204077 2535338	503855	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1381280	68003 1912625	131153 2689689	250403 3203953	625556	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	919936	43873 1240350	87814 1730375	164684 2021154	400939	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	742451	32747 1022177	68045 1422191	134476 1710300	327053	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	1183183	55516 1616052	116370 2243994	210708 2658969	552139	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	787139	37991 1101547	77295 1541835	139458 1836915	369397	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	826350	37020 1116115	80429 1571159	147857 1798914	375337	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	542821	25860 754021	45808 1050528	95355 1223303	245150	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	758644	37945 1043977	72384 1480610	131651 1763890	354223	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	759559	33725 1025123	74799 1467963	127664 1719199	345606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	1427014	72121 1901995	145024 2528644	272215 2956014	693441	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2614193	130767 3591617	254127 4917748	498224 5646093	1204008	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	768443	35489 1036272	77071 1459115	131979 1721553	351337	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	608446	31047 816612	57682 1126965	116434 1329148	282206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1106627	50349 1504330	107405 2074555	213039 2394719	516049	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	360193	15462 484553	36191 689437	61652 823225	171869	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1023539	47339 1436870	94817 2024132	181686 2335726	471571	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1925138	81254 2649064	167635 3679031	320130 4397815	839084	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	390410	12708 542594	27140 785921	57023 913210	163162	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	823421	36973 1133278	78917 1595630	147946 1856230	357832	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	894508	18888 1259998	49373 1788406	109601 2186150	336405	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	1074434	46669 1410177	101334 2007614	185732 2390196	487897	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	604749	25817 845647	51990 1183263	102472 1389688	273816	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	666459	29660 919051	64533 1305616	121656 1500500	305258	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	18865 2128566	102701 2921072	201426 4044633	370881 4865993	953649	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	927727	44686 1272361	87899 1783837	156811 2138336	417958	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	596738	25134 823931	54355 1165498	103459 1374879	266641	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	445889	18350 617071	41086 864680	84593 1014148	204013	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	474514	21861 686619	43569 952126	77809 1125413	216406	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	684017	26330 975273	64006 1329071	122820 1606257	314892	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	15790 1521696	64104 2064993	132574 2915987	259752 3437099	665322	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	13203 1286038	55908 1819677	124431 2528726	231469 3002118	593761	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 424260	12572 610476	30915 902742	60975 1071860	181000	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 666710	29377 933306	65351 1318391	114498 1596884	308617	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 451029	18344 623500	34733 890858	71991 1034521	196737	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 484944	18821 664172	42218 886806	74443 1097418	197827	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	16903 1849099	87836 2538777	173028 3564326	314074 4309369	811706	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15022 1333003	63489 1862579	128018 2622556	235955 3089754	612852	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 567610	22276 772356	43804 1108644	92791 1307430	252116	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1516669	64716 2099780	137660 2964064	259661 3616356	684698	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Lin1	 269715	6960 355710	15521 508711	34438 618422	104724	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 338122	9715 474705	26904 650143	56521 756891	144212	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	20752 2311251	93707 3184165	192076 4609467	382849 5576900	1025076	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 426136	13744 586785	35682 808241	62123 973342	175618	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 386544	4295 576547	12236 850458	33899 995346	117856	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	14116 1379149	63794 1865362	128247 2623331	248818 3185474	621344	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 565960	19479 771574	38132 1077511	84538 1284232	240239	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 451036	14779 613772	32554 867737	69327 1052838	182610	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	21504 2101177	99750 2879847	180331 4100099	364321 4888194	913421	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 421739	15694 589770	33399 837111	68550 1001145	165522	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1780484	77664 2420901	166876 3375550	298652 4063116	796610	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 1408367	64089 1920123	128281 2621055	258102 3165155	644683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	802825	35997 1134404	72063 1604999	137953 1937310	359408	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	415769	13374 569790	30154 765121	65065 926988	178089	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	19604 1716873	79930 2361984	163047 3318071	296044 4013828	768937	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	484134	9294 700548	21410 1003670	49143 1235636	166036	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2436925	108036 3437138	217493 4743448	419143 5792161	1017144	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	2194614	99770 3004203	198236 4199442	389878 5135902	975279	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	2194614	101298 3004203	198236 4199442	389878 5135902	975279	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	440450	18413 608468	41322 873581	73167 1072057	189601	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	4418 461927	20342 623098	41375 879517	71269 1065036	194969	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	883748	34501 1188912	72879 1645924	144975 2008112	379792	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	631685	18178 903009	48326 1313656	84080 1596752	267511	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1486209	65253 2014011	135376 2709734	264221 3301889	672724	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	24973 2337712	100453 3277371	214084 4630727	396188 5729933	1013889	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	20144 2376046	93936 3305788	201689 4647854	388440 5682204	1045365	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	2345989	102249 3327463	207881 4583707	389498 5626465	1012546	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	3178070	126893 4377617	263538 6058680	503527 +++++	1319950	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Fluoranthene	PHN	Ave	21904 2828986	107037 3982138	238437 5727271	457038 +++++	1177377	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Benzidine	CRY	Lin1	3573106	87381 4769587	204684 6916179	460813 +++++	1310103	20.0	1.00 30.0	2.00 40.0	4.00 +++++	10.0
Pyrene	CRY	Ave	29597 2978518	123572 4199638	254349 5922744	489888 7247302	1255942	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1446315	51368 1977704	109177 2673056	212221 3319267	599223	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1891433	52686 2686418	131098 3923862	264595 4952163	741146	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 211271

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/17/2015 12:07 Calibration End Date: 12/17/2015 15:21 Calibration ID: 32180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	2001743	77346 2751180	155582 3759396	315683 4635731	851253	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	26276 2617898	107054 3698012	229359 5194445	437853 6441934	1121385	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	25314 2416432	102547 3467548	219948 4801793	406191 5985940	1056732	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	3520565	109922 4916148	263496 6804669	527624 8474185	1399360	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	17571 2396067	75927 3239605	175706 4703511	349144 5707105	975991	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20148 2361643	91419 3420993	204916 4731986	403808 6045788	1002595	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	13470 2224176	82383 3140832	173487 4451000	335197 5577027	908357	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	16858 2309105	78304 3222874	165639 4666672	348503 5855818	982269	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12532 1862919	66835 2635766	125719 3753508	268929 4879604	765588	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	16995 1888547	67052 2714534	158787 3827327	311305 4836134	789239	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	753617	35115 1070248	70067 1473305	134414 1746607	340956	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	973538	41020 1345880	91410 1858583	177815 2198313	435378	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	8844 1053422	47308 1459668	96259 2069443	184325 2429136	473055	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	17230 1586305	70059 2193515	158400 3076903	273670 3730231	706252	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	208162	7240 295412	15662 436360	30699 520704	87863	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	15402 1836950	80389 2602200	160102 3703548	295457 4608137	806182	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-211271/11 Calibration Date: 12/17/2015 15:45

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51217011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6733	0.5913		8.78	10.0	-12.2	30.0
N-Nitrosodimethylamine	Ave	0.9541	0.7739		8.11	10.0	-18.9	30.0
Pyridine	Ave	1.796	1.681		9.36	10.0	-6.4	30.0
Benzaldehyde	Ave	1.312	1.250	0.0100	19.1	20.0	-4.7	30.0
Phenol	Ave	1.889	1.800	0.8000	9.53	10.0	-4.7	30.0
Aniline	Ave	2.379	2.269		9.54	10.0	-4.6	30.0
Bis(2-chloroethyl)ether	Ave	1.547	1.430	0.7000	9.24	10.0	-7.6	30.0
2-Chlorophenol	Ave	1.247	1.171	0.8000	9.39	10.0	-6.1	30.0
n-Decane	Ave	2.020	1.869		9.25	10.0	-7.5	30.0
1,3-Dichlorobenzene	Ave	1.364	1.275		9.35	10.0	-6.5	30.0
1,4-Dichlorobenzene	Ave	1.390	1.314		9.45	10.0	-5.5	30.0
Benzyl alcohol	Ave	0.9104	0.8755		9.62	10.0	-3.8	30.0
1,2-Dichlorobenzene	Ave	1.308	1.209		9.25	10.0	-7.5	30.0
2-Methylphenol	Ave	1.277	1.215	0.7000	9.52	10.0	-4.8	30.0
bis (2-chloroisopropyl) ether	Ave	2.456	2.258		9.19	10.0	-8.1	30.0
Indene	Ave	2.252	1.998		17.7	20.0	-11.3	30.0
3 & 4 Methylphenol	Ave	1.301	1.257		9.66	10.0	-3.4	30.0
Acetophenone	Ave	1.886	1.779	0.0100	9.43	10.0	-5.7	30.0
N-Nitrosodi-n-propylamine	Ave	1.046	1.000	0.5000	9.56	10.0	-4.4	30.0
Hexachloroethane	Ave	0.6094	0.5904	0.3000	9.69	10.0	-3.1	30.0
Nitrobenzene	Ave	0.4520	0.4273	0.2000	9.45	10.0	-5.5	30.0
Isophorone	Ave	0.8162	0.8107	0.4000	9.93	10.0	-0.7	30.0
2-Nitrophenol	Ave	0.1554	0.1648	0.1000	10.6	10.0	6.1	30.0
2,4-Dimethylphenol	Ave	0.3595	0.3388	0.2000	9.42	10.0	-5.8	30.0
Benzoic acid	Lin1		0.1952		20.0	20.0	0.2	30.0
Bis(2-chloroethoxy)methane	Ave	0.4609	0.4435	0.3000	9.62	10.0	-3.8	30.0
2,4-Dichlorophenol	Ave	0.2597	0.2521	0.2000	9.71	10.0	-2.9	30.0
1,2,4-Trichlorobenzene	Ave	0.2940	0.2665		9.06	10.0	-9.4	30.0
Naphthalene	Ave	0.9274	0.9023	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4072	0.3903	0.0100	9.58	10.0	-4.2	30.0
2,6-Dichlorophenol	Ave	0.2576	0.2469		9.59	10.0	-4.1	30.0
Hexachlorobutadiene	Ave	0.1947	0.1849	0.0100	9.50	10.0	-5.0	30.0
Caprolactam	Ave	0.1045	0.0984	0.0100	18.8	20.0	-5.8	30.0
4-Chloro-3-methylphenol	Ave	0.2975	0.2950	0.2000	9.92	10.0	-0.8	30.0
2-Methylnaphthalene	Ave	0.6544	0.5868	0.4000	8.97	10.0	-10.3	30.0
1-Methylnaphthalene	Ave	0.5737	0.5681		9.90	10.0	-1.0	30.0
Hexachlorocyclopentadiene	Ave	0.3250	0.3466	0.0500	10.7	10.0	6.6	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5575	0.5171	0.0100	9.27	10.0	-7.3	30.0
2,4,6-Trichlorophenol	Ave	0.3544	0.3711	0.2000	10.5	10.0	4.7	30.0
2,4,5-Trichlorophenol	Ave	0.3748	0.3768	0.2000	10.1	10.0	0.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-211271/11 Calibration Date: 12/17/2015 15:45

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51217011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.523	1.387	0.0100	9.11	10.0	-8.9	30.0
2-Chloronaphthalene	Ave	1.144	1.032	0.8000	9.02	10.0	-9.8	30.0
2-Nitroaniline	Ave	0.4453	0.4449	0.0100	9.99	10.0	-0.0	30.0
Dimethyl phthalate	Ave	1.242	1.194	0.0100	9.61	10.0	-3.9	30.0
1,3-Dinitrobenzene	Lin1		0.1973		9.42	10.0	-5.8	30.0
2,6-Dinitrotoluene	Ave	0.2572	0.2629		10.2	10.0	2.2	30.0
Acenaphthylene	Ave	1.855	1.778	0.9000	9.59	10.0	-4.1	30.0
3-Nitroaniline	Ave	0.3219	0.3317	0.0100	10.3	10.0	3.0	30.0
2,4-Dinitrophenol	Lin1		0.1468	0.0100	18.1	20.0	-9.3	30.0
Acenaphthene	Ave	1.153	1.081	0.9000	9.37	10.0	-6.3	30.0
4-Nitrophenol	Ave	0.2110	0.2131		20.2	20.0	1.0	30.0
2,4-Dinitrotoluene	Ave	0.3379	0.3410	0.2000	10.1	10.0	0.9	30.0
Dibenzofuran	Ave	1.741	1.624	0.8000	9.33	10.0	-6.7	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3279	0.3312	0.0100	10.1	10.0	1.0	30.0
Diethyl phthalate	Ave	1.446	1.372	0.0100	9.48	10.0	-5.2	30.0
Hexadecane	Ave	0.6149	0.5857		9.53	10.0	-4.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6649	0.6303	0.4000	9.48	10.0	-5.2	30.0
4-Nitroaniline	Ave	0.3106	0.3182	0.0100	10.2	10.0	2.4	30.0
Fluorene	Ave	1.458	1.306	0.9000	8.95	10.0	-10.5	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.0981	0.0100	18.5	20.0	-7.5	30.0
N-Nitrosodiphenylamine	Ave	0.5270	0.5086	0.0100	19.3	20.0	-3.5	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9576	0.9417		9.82	10.0	-1.7	30.0
Azobenzene	Ave	0.9595	0.9422		9.82	10.0	-1.8	30.0
4-Bromophenyl phenyl ether	Ave	0.1908	0.1855	0.1000	9.72	10.0	-2.8	30.0
Hexachlorobenzene	Ave	0.1967	0.1825	0.1000	9.28	10.0	-7.2	30.0
Atrazine	Ave	0.1829	0.1713	0.0100	18.7	20.0	-6.3	30.0
Pentachlorophenol	Ave	0.1271	0.1363	0.0500	21.5	20.0	7.3	30.0
n-Octadecane	Ave	1.205	1.133		9.40	10.0	-6.0	30.0
Phenanthrene	Ave	1.038	0.9191	0.7000	8.85	10.0	-11.5	30.0
Anthracene	Ave	1.003	0.9909	0.7000	9.88	10.0	-1.2	30.0
Carbazole	Ave	1.014	0.9826	0.0100	9.69	10.0	-3.1	30.0
Di-n-butyl phthalate	Ave	1.316	1.330	0.0100	10.1	10.0	1.0	30.0
Fluoranthene	Ave	1.167	1.161	0.6000	9.94	10.0	-0.6	30.0
Benzidine	Lin1		0.6152		17.5	20.0	-12.4	30.0
Pyrene	Ave	1.244	1.153	0.6000	9.27	10.0	-7.3	30.0
Butyl benzyl phthalate	Ave	0.5514	0.5607	0.0100	10.2	10.0	1.7	30.0
3,3'-Dichlorobenzidine	Ave	0.3586	0.3643	0.0100	20.3	20.0	1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7854	0.7995	0.0100	10.2	10.0	1.8	30.0
Benzo[a]anthracene	Ave	1.101	1.073	0.8000	9.75	10.0	-2.5	30.0
Chrysene	Ave	1.036	1.011	0.7000	9.76	10.0	-2.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-211271/11 Calibration Date: 12/17/2015 15:45

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51217011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.741	1.849	0.0100	10.6	10.0	6.2	30.0
Benzo[b]fluoranthene	Ave	1.170	1.221	0.7000	10.4	10.0	4.4	30.0
Benzo[k]fluoranthene	Ave	1.267	1.249	0.7000	9.86	10.0	-1.4	30.0
Benzo[a]pyrene	Ave	1.109	1.153	0.7000	10.4	10.0	4.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.158	1.154	0.5000	9.96	10.0	-0.4	30.0
Dibenz(a,h)anthracene	Ave	0.9235	0.9652	0.4000	10.5	10.0	4.5	30.0
Benzo[g,h,i]perylene	Ave	1.002	0.9856	0.5000	9.84	10.0	-1.6	30.0
2-Fluorophenol (Surr)	Ave	1.287	1.296		10.1	10.0	0.7	30.0
Phenol-d5 (Surr)	Ave	1.632	1.726		10.6	10.0	5.8	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4538	0.4753		10.5	10.0	4.7	30.0
2-Fluorobiphenyl (Surr)	Ave	1.340	1.328		9.91	10.0	-0.9	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1619	0.1774		11.0	10.0	9.6	30.0
Terphenyl-d14 (Surr)	Ave	0.7631	0.7955		10.4	10.0	4.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211748/2 Calibration Date: 12/21/2015 10:44

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51221002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6733	0.6478		9.62	10.0	-3.8	20.0
N-Nitrosodimethylamine	Ave	0.9541	0.9754		10.2	10.0	2.2	20.0
Pyridine	Ave	1.796	1.800		10.0	10.0	0.2	20.0
Benzaldehyde	Ave	1.312	1.289	0.0100	19.6	20.0	-1.8	20.0
Phenol	Ave	1.889	1.844	0.8000	9.76	10.0	-2.4	20.0
Aniline	Ave	2.379	2.419		10.2	10.0	1.7	20.0
Bis(2-chloroethyl)ether	Ave	1.547	1.482	0.7000	9.58	10.0	-4.2	20.0
2-Chlorophenol	Ave	1.247	1.290	0.8000	10.3	10.0	3.4	20.0
n-Decane	Ave	2.020	2.045		10.1	10.0	1.2	20.0
1,3-Dichlorobenzene	Ave	1.364	1.375		10.1	10.0	0.8	20.0
1,4-Dichlorobenzene	Ave	1.390	1.367		9.84	10.0	-1.6	20.0
Benzyl alcohol	Ave	0.9104	0.8484		9.32	10.0	-6.8	20.0
1,2-Dichlorobenzene	Ave	1.308	1.306		9.99	10.0	-0.1	20.0
2-Methylphenol	Ave	1.277	1.245	0.7000	9.75	10.0	-2.5	20.0
bis (2-chloroisopropyl) ether	Ave	2.456	2.374		9.66	10.0	-3.4	20.0
Indene	Ave	2.252	2.212		19.6	20.0	-1.8	20.0
3 & 4 Methylphenol	Ave	1.301	1.282		9.85	10.0	-1.5	20.0
N-Nitrosodi-n-propylamine	Ave	1.046	0.9640	0.5000	9.22	10.0	-7.8	20.0
Acetophenone	Ave	1.886	1.841	0.0100	9.76	10.0	-2.4	20.0
Hexachloroethane	Ave	0.6094	0.6116	0.3000	10.0	10.0	0.4	20.0
Nitrobenzene	Ave	0.4520	0.4481	0.2000	9.91	10.0	-0.9	20.0
Isophorone	Ave	0.8162	0.7961	0.4000	9.75	10.0	-2.5	20.0
2-Nitrophenol	Ave	0.1554	0.1772	0.1000	11.4	10.0	14.1	20.0
2,4-Dimethylphenol	Ave	0.3595	0.3532	0.2000	9.83	10.0	-1.7	20.0
Benzoic acid	Lin1		0.1691		17.5	20.0	-12.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.4609	0.4539	0.3000	9.85	10.0	-1.5	20.0
2,4-Dichlorophenol	Ave	0.2597	0.2707	0.2000	10.4	10.0	4.3	20.0
1,2,4-Trichlorobenzene	Ave	0.2940	0.2931		9.97	10.0	-0.3	20.0
Naphthalene	Ave	0.9274	0.9129	0.7000	9.84	10.0	-1.6	20.0
4-Chloroaniline	Ave	0.4072	0.4036	0.0100	9.91	10.0	-0.9	20.0
2,6-Dichlorophenol	Ave	0.2576	0.2509		9.74	10.0	-2.6	20.0
Hexachlorobutadiene	Ave	0.1947	0.1946	0.0100	9.99	10.0	-0.0	20.0
Caprolactam	Ave	0.1045	0.1038	0.0100	19.9	20.0	-0.7	20.0
4-Chloro-3-methylphenol	Ave	0.2975	0.2888	0.2000	9.71	10.0	-2.9	20.0
2-Methylnaphthalene	Ave	0.6544	0.6447	0.4000	9.85	10.0	-1.5	20.0
1-Methylnaphthalene	Ave	0.5737	0.5490		9.57	10.0	-4.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5575	0.5778	0.0100	10.4	10.0	3.6	20.0
Hexachlorocyclopentadiene	Ave	0.3250	0.3771	0.0500	11.6	10.0	16.0	20.0
2,4,6-Trichlorophenol	Ave	0.3544	0.3756	0.2000	10.6	10.0	6.0	20.0
2,4,5-Trichlorophenol	Ave	0.3748	0.3815	0.2000	10.2	10.0	1.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211748/2 Calibration Date: 12/21/2015 10:44

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51221002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.523	1.513	0.0100	9.94	10.0	-0.6	20.0
2-Chloronaphthalene	Ave	1.144	1.116	0.8000	9.76	10.0	-2.4	20.0
2-Nitroaniline	Ave	0.4453	0.4584	0.0100	10.3	10.0	3.0	20.0
Dimethyl phthalate	Ave	1.242	1.271	0.0100	10.2	10.0	2.3	20.0
1,3-Dinitrobenzene	Lin1		0.2132		10.2	10.0	1.5	20.0
2,6-Dinitrotoluene	Ave	0.2572	0.2785		10.8	10.0	8.3	20.0
Acenaphthylene	Ave	1.855	1.913	0.9000	10.3	10.0	3.1	20.0
3-Nitroaniline	Ave	0.3219	0.3517	0.0100	10.9	10.0	9.3	20.0
2,4-Dinitrophenol	Lin1		0.1659	0.0100	20.3	20.0	1.7	20.0
Acenaphthene	Ave	1.153	1.146	0.9000	9.94	10.0	-0.6	20.0
4-Nitrophenol	Ave	0.2110	0.2146		20.3	20.0	1.7	20.0
2,4-Dinitrotoluene	Ave	0.3379	0.3648	0.2000	10.8	10.0	8.0	20.0
Dibenzofuran	Ave	1.741	1.757	0.8000	10.1	10.0	0.9	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3279	0.3380	0.0100	10.3	10.0	3.1	20.0
Diethyl phthalate	Ave	1.446	1.387	0.0100	9.59	10.0	-4.1	20.0
Hexadecane	Ave	0.6149	0.6426		10.5	10.0	4.5	20.0
4-Chlorophenyl phenyl ether	Ave	0.6649	0.6611	0.4000	9.94	10.0	-0.6	20.0
4-Nitroaniline	Ave	0.3106	0.3599	0.0100	11.6	10.0	15.9	20.0
Fluorene	Ave	1.458	1.393	0.9000	9.55	10.0	-4.5	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1144	0.0100	21.4	20.0	7.0	20.0
N-Nitrosodiphenylamine	Ave	0.5270	0.5388	0.0100	20.4	20.0	2.2	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9576	0.9385		9.78	10.0	-2.0	20.0
Azobenzene	Ave	0.9595	0.9385		9.78	10.0	-2.2	20.0
4-Bromophenyl phenyl ether	Ave	0.1908	0.1988	0.1000	10.4	10.0	4.2	20.0
Hexachlorobenzene	Ave	0.1967	0.2048	0.1000	10.4	10.0	4.1	20.0
Atrazine	Ave	0.1829	0.1943	0.0100	21.3	20.0	6.3	20.0
Pentachlorophenol	Ave	0.1271	0.1398	0.0500	22.0	20.0	10.0	20.0
n-Octadecane	Ave	1.205	1.246		10.3	10.0	3.4	20.0
Phenanthrene	Ave	1.038	1.027	0.7000	9.89	10.0	-1.1	20.0
Anthracene	Ave	1.003	1.056	0.7000	10.5	10.0	5.3	20.0
Carbazole	Ave	1.014	1.066	0.0100	10.5	10.0	5.1	20.0
Di-n-butyl phthalate	Ave	1.316	1.362	0.0100	10.3	10.0	3.5	20.0
Fluoranthene	Ave	1.167	1.256	0.6000	10.8	10.0	7.6	20.0
Benzidine	Lin1		0.7107		20.2	20.0	0.8	20.0
Pyrene	Ave	1.244	1.199	0.6000	9.64	10.0	-3.6	20.0
Butyl benzyl phthalate	Ave	0.5514	0.5787	0.0100	10.5	10.0	4.9	20.0
3,3'-Dichlorobenzidine	Ave	0.3586	0.3973	0.0100	22.2	20.0	10.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7854	0.8164	0.0100	10.4	10.0	3.9	20.0
Benzo[a]anthracene	Ave	1.101	1.081	0.8000	9.82	10.0	-1.8	20.0
Chrysene	Ave	1.036	1.022	0.7000	9.86	10.0	-1.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211748/2 Calibration Date: 12/21/2015 10:44

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51221002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.741	1.909	0.0100	11.0	10.0	9.6	20.0
Benzo[b]fluoranthene	Ave	1.170	1.255	0.7000	10.7	10.0	7.3	20.0
Benzo[k]fluoranthene	Ave	1.267	1.351	0.7000	10.7	10.0	6.6	20.0
Benzo[a]pyrene	Ave	1.109	1.243	0.7000	11.2	10.0	12.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.158	1.291	0.5000	11.1	10.0	11.5	20.0
Dibenz(a,h)anthracene	Ave	0.9235	1.060	0.4000	11.5	10.0	14.8	20.0
Benzo[g,h,i]perylene	Ave	1.002	1.067	0.5000	10.6	10.0	6.5	20.0
2-Fluorophenol (Surr)	Ave	1.287	1.295		10.1	10.0	0.6	20.0
Phenol-d5 (Surr)	Ave	1.632	1.667		10.2	10.0	2.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4538	0.4694		10.3	10.0	3.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.340	1.296		9.67	10.0	-3.3	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1619	0.1747		10.8	10.0	7.9	20.0
Terphenyl-d14 (Surr)	Ave	0.7631	0.7612		9.98	10.0	-0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211902/2 Calibration Date: 12/22/2015 09:44

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51222002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6733	0.6293		9.35	10.0	-6.5	20.0
N-Nitrosodimethylamine	Ave	0.9541	0.9732		10.2	10.0	2.0	20.0
Pyridine	Ave	1.796	1.812		10.1	10.0	0.9	20.0
Benzaldehyde	Ave	1.312	1.383	0.0100	21.1	20.0	5.4	20.0
Phenol	Ave	1.889	1.894	0.8000	10.0	10.0	0.3	20.0
Aniline	Ave	2.379	2.428		10.2	10.0	2.1	20.0
Bis(2-chloroethyl)ether	Ave	1.547	1.564	0.7000	10.1	10.0	1.1	20.0
2-Chlorophenol	Ave	1.247	1.290	0.8000	10.3	10.0	3.4	20.0
n-Decane	Ave	2.020	2.050		10.1	10.0	1.5	20.0
1,3-Dichlorobenzene	Ave	1.364	1.429		10.5	10.0	4.8	20.0
1,4-Dichlorobenzene	Ave	1.390	1.403		10.1	10.0	1.0	20.0
Benzyl alcohol	Ave	0.9104	0.4116		4.52	10.0	-54.8*	20.0
1,2-Dichlorobenzene	Ave	1.308	1.349		10.3	10.0	3.1	20.0
2-Methylphenol	Ave	1.277	1.250	0.7000	9.80	10.0	-2.0	20.0
bis (2-chloroisopropyl) ether	Ave	2.456	2.489		10.1	10.0	1.3	20.0
Indene	Ave	2.252	2.305		20.5	20.0	2.4	20.0
3 & 4 Methylphenol	Ave	1.301	1.354		10.4	10.0	4.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.046	1.067	0.5000	10.2	10.0	2.0	20.0
Acetophenone	Ave	1.886	1.941	0.0100	10.3	10.0	2.9	20.0
Hexachloroethane	Ave	0.6094	0.6340	0.3000	10.4	10.0	4.0	20.0
Nitrobenzene	Ave	0.4520	0.4609	0.2000	10.2	10.0	2.0	20.0
Isophorone	Ave	0.8162	0.8183	0.4000	10.0	10.0	0.3	20.0
2-Nitrophenol	Ave	0.1554	0.1822	0.1000	11.7	10.0	17.2	20.0
2,4-Dimethylphenol	Ave	0.3595	0.3206	0.2000	8.92	10.0	-10.8	20.0
Benzoic acid	Lin1		0.2090		21.4	20.0	7.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4609	0.4627	0.3000	10.0	10.0	0.4	20.0
2,4-Dichlorophenol	Ave	0.2597	0.2639	0.2000	10.2	10.0	1.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2940	0.3044		10.4	10.0	3.5	20.0
Naphthalene	Ave	0.9274	0.9462	0.7000	10.2	10.0	2.0	20.0
4-Chloroaniline	Ave	0.4072	0.4073	0.0100	10.0	10.0	0.0	20.0
2,6-Dichlorophenol	Ave	0.2576	0.2554		9.91	10.0	-0.9	20.0
Hexachlorobutadiene	Ave	0.1947	0.1968	0.0100	10.1	10.0	1.1	20.0
Caprolactam	Ave	0.1045	0.1050	0.0100	20.1	20.0	0.5	20.0
4-Chloro-3-methylphenol	Ave	0.2975	0.3045	0.2000	10.2	10.0	2.3	20.0
2-Methylnaphthalene	Ave	0.6544	0.6589	0.4000	10.1	10.0	0.7	20.0
1-Methylnaphthalene	Ave	0.5737	0.5750		10.0	10.0	0.2	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5575	0.5460	0.0100	9.79	10.0	-2.1	20.0
Hexachlorocyclopentadiene	Ave	0.3250	0.3811	0.0500	11.7	10.0	17.3	20.0
2,4,6-Trichlorophenol	Ave	0.3544	0.3915	0.2000	11.0	10.0	10.5	20.0
2,4,5-Trichlorophenol	Ave	0.3748	0.3969	0.2000	10.6	10.0	5.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211902/2 Calibration Date: 12/22/2015 09:44

Instrument ID: A4HP10 Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 12/17/2015 15:21

Lab File ID: 51222002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.523	1.519	0.0100	9.97	10.0	-0.3	20.0
2-Chloronaphthalene	Ave	1.144	1.127	0.8000	9.85	10.0	-1.5	20.0
2-Nitroaniline	Ave	0.4453	0.4860	0.0100	10.9	10.0	9.2	20.0
Dimethyl phthalate	Ave	1.242	1.235	0.0100	9.94	10.0	-0.6	20.0
1,3-Dinitrobenzene	Lin1		0.2295		10.9	10.0	9.1	20.0
2,6-Dinitrotoluene	Ave	0.2572	0.2740		10.7	10.0	6.5	20.0
Acenaphthylene	Ave	1.855	1.944	0.9000	10.5	10.0	4.8	20.0
3-Nitroaniline	Ave	0.3219	0.3449	0.0100	10.7	10.0	7.1	20.0
2,4-Dinitrophenol	Lin1		0.1720	0.0100	21.0	20.0	5.2	20.0
Acenaphthene	Ave	1.153	1.133	0.9000	9.83	10.0	-1.7	20.0
4-Nitrophenol	Ave	0.2110	0.2169		20.6	20.0	2.8	20.0
2,4-Dinitrotoluene	Ave	0.3379	0.3841	0.2000	11.4	10.0	13.7	20.0
Dibenzofuran	Ave	1.741	1.738	0.8000	9.99	10.0	-0.1	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3279	0.3349	0.0100	10.2	10.0	2.1	20.0
Diethyl phthalate	Ave	1.446	1.426	0.0100	9.86	10.0	-1.4	20.0
Hexadecane	Ave	0.6149	0.6311		10.3	10.0	2.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6649	0.6613	0.4000	9.95	10.0	-0.5	20.0
4-Nitroaniline	Ave	0.3106	0.3460	0.0100	11.1	10.0	11.4	20.0
Fluorene	Ave	1.458	1.396	0.9000	9.57	10.0	-4.3	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1189	0.0100	22.2	20.0	11.1	20.0
N-Nitrosodiphenylamine	Ave	0.5270	0.5295	0.0100	20.1	20.0	0.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9576	0.9319		9.71	10.0	-2.7	20.0
Azobenzene	Ave	0.9595	0.9319		9.71	10.0	-2.9	20.0
4-Bromophenyl phenyl ether	Ave	0.1908	0.1963	0.1000	10.3	10.0	2.9	20.0
Hexachlorobenzene	Ave	0.1967	0.1976	0.1000	10.0	10.0	0.4	20.0
Atrazine	Ave	0.1829	0.1851	0.0100	20.2	20.0	1.2	20.0
Pentachlorophenol	Ave	0.1271	0.1333	0.0500	21.0	20.0	4.9	20.0
n-Octadecane	Ave	1.205	1.151		9.55	10.0	-4.5	20.0
Phenanthrene	Ave	1.038	1.013	0.7000	9.76	10.0	-2.4	20.0
Anthracene	Ave	1.003	1.026	0.7000	10.2	10.0	2.4	20.0
Carbazole	Ave	1.014	1.015	0.0100	10.0	10.0	0.1	20.0
Di-n-butyl phthalate	Ave	1.316	1.362	0.0100	10.3	10.0	3.4	20.0
Fluoranthene	Ave	1.167	1.236	0.6000	10.6	10.0	5.9	20.0
Benzidine	Lin1		0.7574		21.4	20.0	7.2	20.0
Pyrene	Ave	1.244	1.245	0.6000	10.0	10.0	0.0	20.0
Butyl benzyl phthalate	Ave	0.5514	0.5892	0.0100	10.7	10.0	6.8	20.0
3,3'-Dichlorobenzidine	Ave	0.3586	0.4002	0.0100	22.3	20.0	11.6	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7854	0.8378	0.0100	10.7	10.0	6.7	20.0
Benzo[a]anthracene	Ave	1.101	1.098	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.036	0.9907	0.7000	9.56	10.0	-4.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211902/2 | Calibration Date: 12/22/2015 09:44

Instrument ID: A4HP10 | Calib Start Date: 12/17/2015 12:07

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 12/17/2015 15:21

Lab File ID: 51222002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.741	1.864	0.0100	10.7	10.0	7.0	20.0
Benzo[b]fluoranthene	Ave	1.170	1.276	0.7000	10.9	10.0	9.1	20.0
Benzo[k]fluoranthene	Ave	1.267	1.305	0.7000	10.3	10.0	3.0	20.0
Benzo[a]pyrene	Ave	1.109	1.186	0.7000	10.7	10.0	6.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.158	1.246	0.5000	10.8	10.0	7.6	20.0
Dibenz(a,h)anthracene	Ave	0.9235	1.030	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.002	1.038	0.5000	10.4	10.0	3.5	20.0
2-Fluorophenol (Surr)	Ave	1.287	1.304		10.1	10.0	1.3	20.0
Phenol-d5 (Surr)	Ave	1.632	1.711		10.5	10.0	4.8	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4538	0.4789		10.6	10.0	5.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.340	1.290		9.63	10.0	-3.7	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1619	0.1682		10.4	10.0	3.9	20.0
Terphenyl-d14 (Surr)	Ave	0.7631	0.7659		10.0	10.0	0.4	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211448/17-A

Matrix: Solid | Lab File ID: 51221009.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 30(g) | Date Analyzed: 12/21/2015 13:27

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211748 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	3.5	U	50	3.5
108-60-1	bis (2-chloroisopropyl) ether	9.5	U	100	9.5
95-95-4	2,4,5-Trichlorophenol	25	U	150	25
88-06-2	2,4,6-Trichlorophenol	8.9	U	150	8.9
120-83-2	2,4-Dichlorophenol	20	U	150	20
105-67-9	2,4-Dimethylphenol	20	U	150	20
51-28-5	2,4-Dinitrophenol	21	U	330	21
121-14-2	2,4-Dinitrotoluene	17	U	200	17
606-20-2	2,6-Dinitrotoluene	21	U	200	21
91-58-7	2-Chloronaphthalene	0.45	U	50	0.45
95-57-8	2-Chlorophenol	8.2	U	50	8.2
91-57-6	2-Methylnaphthalene	0.50	U	6.7	0.50
95-48-7	2-Methylphenol	11	U	200	11
88-74-4	2-Nitroaniline	9.1	U	200	9.1
88-75-5	2-Nitrophenol	8.3	U	50	8.3
91-94-1	3,3'-Dichlorobenzidine	18	U	100	18
99-09-2	3-Nitroaniline	16	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	9.2	U	150	9.2
101-55-3	4-Bromophenyl phenyl ether	13	U	50	13
59-50-7	4-Chloro-3-methylphenol	21	U	150	21
106-47-8	4-Chloroaniline	17	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	13	U	50	13
100-01-6	4-Nitroaniline	26	U	200	26
100-02-7	4-Nitrophenol	17	U	330	17
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
98-86-2	Acetophenone	9.2	U	100	9.2
120-12-7	Anthracene	0.78	U	6.7	0.78
1912-24-9	Atrazine	9.1	U	200	9.1
100-52-7	Benzaldehyde	12	U	100	12
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211448/17-A

Matrix: Solid | Lab File ID: 51221009.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 30(g) | Date Analyzed: 12/21/2015 13:27

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211748 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
111-91-1	Bis(2-chloroethoxy)methane	22	U	100	22
111-44-4	Bis(2-chloroethyl)ether	2.0	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	19	U	70	19
85-68-7	Butyl benzyl phthalate	10	U	70	10
105-60-2	Caprolactam	37	U	330	37
86-74-8	Carbazole	27	U	50	27
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
132-64-9	Dibenzofuran	0.66	U	50	0.66
84-66-2	Diethyl phthalate	16	U	70	16
131-11-3	Dimethyl phthalate	17	U	70	17
84-74-2	Di-n-butyl phthalate	15	U	70	15
117-84-0	Di-n-octyl phthalate	7.9	U	70	7.9
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
118-74-1	Hexachlorobenzene	2.1	U	6.7	2.1
87-68-3	Hexachlorobutadiene	5.6	U	50	5.6
77-47-4	Hexachlorocyclopentadiene	8.1	U	330	8.1
67-72-1	Hexachloroethane	9.0	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
78-59-1	Isophorone	13.6	J	50	13
621-64-7	N-Nitrosodi-n-propylamine	6.3	U	50	6.3
86-30-6	N-Nitrosodiphenylamine	21	U	50	21
91-20-3	Naphthalene	0.82	U	6.7	0.82
98-95-3	Nitrobenzene	2.2	U	100	2.2
87-86-5	Pentachlorophenol	9.1	U	150	9.1
85-01-8	Phenanthrene	0.73	U	6.7	0.73
108-95-2	Phenol	7.3	U	50	7.3
129-00-0	Pyrene	0.44	U	6.7	0.44
15831-10-4	3 & 4 Methylphenol	20	U	400	20

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211448/17-A

Matrix: Solid | Lab File ID: 51221009.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 30(g) | Date Analyzed: 12/21/2015 13:27

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211748 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	73		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	76		20-110
367-12-4	2-Fluorophenol (Surr)	65		24-110
321-60-8	2-Fluorobiphenyl (Surr)	82		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211448/18-A

Matrix: Solid | Lab File ID: 51221010.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 30(g) | Date Analyzed: 12/21/2015 13:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211748 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	491		50	3.5
108-60-1	bis (2-chloroisopropyl) ether	538		100	9.5
95-95-4	2,4,5-Trichlorophenol	341		150	25
88-06-2	2,4,6-Trichlorophenol	234		150	8.9
120-83-2	2,4-Dichlorophenol	496		150	20
105-67-9	2,4-Dimethylphenol	487		150	20
51-28-5	2,4-Dinitrophenol	311	J	330	21
121-14-2	2,4-Dinitrotoluene	593		200	17
606-20-2	2,6-Dinitrotoluene	557		200	21
91-58-7	2-Chloronaphthalene	492		50	0.45
95-57-8	2-Chlorophenol	529		50	8.2
91-57-6	2-Methylnaphthalene	519		6.7	0.50
95-48-7	2-Methylphenol	551		200	11
88-74-4	2-Nitroaniline	561		200	9.1
88-75-5	2-Nitrophenol	557		50	8.3
91-94-1	3,3'-Dichlorobenzidine	1130		100	18
99-09-2	3-Nitroaniline	579		200	16
534-52-1	4,6-Dinitro-2-methylphenol	560		150	9.2
101-55-3	4-Bromophenyl phenyl ether	581		50	13
59-50-7	4-Chloro-3-methylphenol	554		150	21
106-47-8	4-Chloroaniline	476		150	17
7005-72-3	4-Chlorophenyl phenyl ether	554		50	13
100-01-6	4-Nitroaniline	621		200	26
100-02-7	4-Nitrophenol	888		330	17
83-32-9	Acenaphthene	517		6.7	0.76
208-96-8	Acenaphthylene	515		6.7	0.35
98-86-2	Acetophenone	520		100	9.2
120-12-7	Anthracene	568		6.7	0.78
1912-24-9	Atrazine	1230		200	9.1
100-52-7	Benzaldehyde	1070		100	12
56-55-3	Benzo[a]anthracene	587		6.7	0.63
50-32-8	Benzo[a]pyrene	602		6.7	0.64
205-99-2	Benzo[b]fluoranthene	605		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	599		6.7	0.35

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211448/18-A

Matrix: Solid | Lab File ID: 51221010.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 30(g) | Date Analyzed: 12/21/2015 13:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211748 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
207-08-9	Benzo[k]fluoranthene	626		6.7	0.68
111-91-1	Bis(2-chloroethoxy)methane	526		100	22
111-44-4	Bis(2-chloroethyl)ether	517		100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	625		70	19
85-68-7	Butyl benzyl phthalate	622		70	10
105-60-2	Caprolactam	1220		330	37
86-74-8	Carbazole	590		50	27
218-01-9	Chrysene	596		6.7	1.1
53-70-3	Dibenz(a,h)anthracene	645		6.7	0.66
132-64-9	Dibenzofuran	522		50	0.66
84-66-2	Diethyl phthalate	562		70	16
131-11-3	Dimethyl phthalate	546		70	17
84-74-2	Di-n-butyl phthalate	624		70	15
117-84-0	Di-n-octyl phthalate	602		70	7.9
206-44-0	Fluoranthene	599		6.7	0.55
86-73-7	Fluorene	501		6.7	0.53
118-74-1	Hexachlorobenzene	571		6.7	2.1
87-68-3	Hexachlorobutadiene	511		50	5.6
77-47-4	Hexachlorocyclopentadiene	385		330	8.1
67-72-1	Hexachloroethane	494		50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	627		6.7	0.35
78-59-1	Isophorone	526		50	13
621-64-7	N-Nitrosodi-n-propylamine	527		50	6.3
86-30-6	N-Nitrosodiphenylamine	1150		50	21
91-20-3	Naphthalene	505		6.7	0.82
98-95-3	Nitrobenzene	521		100	2.2
87-86-5	Pentachlorophenol	770		150	9.1
85-01-8	Phenanthrene	567		6.7	0.73
108-95-2	Phenol	521		50	7.3
129-00-0	Pyrene	577		6.7	0.44
15831-10-4	3 & 4 Methylphenol	521		400	20

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211448/18-A

Matrix: Solid | Lab File ID: 51221010.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 12/18/2015 07:26

Sample wt/vol: 30(g) | Date Analyzed: 12/21/2015 13:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211748 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	80		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	35		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Start Date: 12/17/2015 11:45

Analysis Batch Number: 211271 End Date: 12/17/2015 19:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-211271/1		12/17/2015 11:45	1	51217001.D	DB-624 0.18(mm)
STD5 240-211271/2 IC		12/17/2015 12:07	1	51217002.D	DB-624 0.18(mm)
STD4 240-211271/3 IC		12/17/2015 12:31	1	51217003.D	DB-624 0.18(mm)
STD3 240-211271/4 IC		12/17/2015 12:55	1	51217004.D	DB-624 0.18(mm)
STD2 240-211271/5 IC		12/17/2015 13:20	1	51217005.D	DB-624 0.18(mm)
STD1 240-211271/6 IC		12/17/2015 13:44	1	51217006.D	DB-624 0.18(mm)
STD9 240-211271/7 IC		12/17/2015 14:08	1	51217007.D	DB-624 0.18(mm)
STD8 240-211271/8 IC		12/17/2015 14:32	1	51217008.D	DB-624 0.18(mm)
STD7 240-211271/9 IC		12/17/2015 14:57	1	51217009.D	DB-624 0.18(mm)
STD6 240-211271/10 ICIS		12/17/2015 15:21	1	51217010.D	DB-624 0.18(mm)
ICV 240-211271/11		12/17/2015 15:45	1	51217011.D	DB-624 0.18(mm)
STD9 240-211271/12 IC		12/17/2015 16:10	1		DB-624 0.18(mm)
STD8 240-211271/13 IC		12/17/2015 16:34	1		DB-624 0.18(mm)
STD7 240-211271/14 IC		12/17/2015 16:58	1		DB-624 0.18(mm)
STD6 240-211271/15 IC		12/17/2015 17:22	1		DB-624 0.18(mm)
STD5 240-211271/16 IC		12/17/2015 17:46	1		DB-624 0.18(mm)
STD4 240-211271/17 IC		12/17/2015 18:11	1		DB-624 0.18(mm)
STD3 240-211271/18 IC		12/17/2015 18:35	1		DB-624 0.18(mm)
STD2 240-211271/19 IC		12/17/2015 18:59	1		DB-624 0.18(mm)
ICV 240-211271/20		12/17/2015 19:23	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Start Date: 12/21/2015 10:22

Analysis Batch Number: 211748 End Date: 12/21/2015 18:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-211748/1		12/21/2015 10:22	1	51221001.D	DB-624 0.18(mm)
CCV 240-211748/2 CCVIS		12/21/2015 10:44	1	51221002.D	DB-624 0.18(mm)
CCV 240-211748/4		12/21/2015 11:31	1	51221004.D	DB-624 0.18(mm)
ZZZZZ		12/21/2015 11:53	1		DB-624 0.18(mm)
ZZZZZ		12/21/2015 12:17	1		DB-624 0.18(mm)
MB 240-211448/17-A		12/21/2015 13:27	1	51221009.D	DB-624 0.18(mm)
LCS 240-211448/18-A		12/21/2015 13:51	1	51221010.D	DB-624 0.18(mm)
ZZZZZ		12/21/2015 18:11	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A4HP10 Start Date: 12/22/2015 09:23

Analysis Batch Number: 211902 End Date: 12/22/2015 18:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-211902/1		12/22/2015 09:23	1	51222001.D	DB-624 0.18(mm)
CCV 240-211902/2 CCVIS		12/22/2015 09:44	1	51222002.D	DB-624 0.18(mm)
STD9 240-211902/5 IC		12/22/2015 10:53	1		DB-624 0.18(mm)
STD8 240-211902/6 IC		12/22/2015 11:15	1		DB-624 0.18(mm)
STD7 240-211902/7 IC		12/22/2015 11:36	1		DB-624 0.18(mm)
STD6 240-211902/8 IC		12/22/2015 11:58	1		DB-624 0.18(mm)
STD5 240-211902/9 IC		12/22/2015 12:20	1		DB-624 0.18(mm)
STD4 240-211902/10 IC		12/22/2015 12:42	1		DB-624 0.18(mm)
STD3 240-211902/11 IC		12/22/2015 13:04	1		DB-624 0.18(mm)
STD2 240-211902/12 IC		12/22/2015 13:26	1		DB-624 0.18(mm)
240-59150-1	D-SD-WC-1	12/22/2015 18:17	2	51222024.D	DB-624 0.18(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211448 Batch Start Date: 12/18/15 10:20 Batch Analyst: Newsome, Yvonne D

Batch Method: 3540C Batch End Date: 12/19/15 02:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00033	exBNASPIKE 00055	exBNASURR W 00030	
240-59150-1	D-SD-WC-1	3540C, 8270D	T	29.61 g	2 mL			1 mL	
MB 240-211448/17-A		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-211448/18-A		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2204511
Prep Solvent Lot #	2313329

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8015C - GRO

Nonhalogenated Organics using GC/FID - Modified (Gasoline Range Organics) by Method 8015C

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
D-SD-WC-1	240-59150-1	79
	MB 240-211450/1-A	75
	LCS 240-211450/2-A	97
	180-50773-A-11-B MS	91
	180-50773-A-11-C MSD	85

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-139

Column to be used to flag recovery values

FORM II 8015C

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: A0121806.D

Lab ID: LCS 240-211450/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	795	99	74-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: A0121823.D

Lab ID: 180-50773-A-11-B MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	1660	96 U	1500	90	10-136	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: A0121824.D

Lab ID: 180-50773-A-11-C MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	1660	1360	82	9	40	10-136	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: MB 240-211450/1-A

Matrix: Solid Date Extracted: 12/18/2015 07:47

Lab File ID:(1) A0121805.D Lab File ID:(2)

Date Analyzed:(1) 12/18/2015 10:42 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-211450/2-A	12/18/2015 11:18	
D-SD-WC-1	240-59150-1	12/18/2015 13:43	
	180-50773-A-11-B MS	12/18/2015 21:47	
	180-50773-A-11-C MSD	12/18/2015 22:22	

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD4 240-194508/10 Date Analyzed: 08/24/2015 15:53

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0082110.D Heated Purge: (Y/N) N

Calibration ID: 30361

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.34		
UPPER LIMIT				10.44		
LOWER LIMIT				10.24		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-194508/10 ICRT		08/24/2015 15:53	A0082110.D	10.34		
ICV 240-194508/13		08/24/2015 17:45	A0082113.D	10.34		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCVRT 240-211453/4 Date Analyzed: 12/18/2015 10:04

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0121804.D Heated Purge: (Y/N) N

Calibration ID: 30361

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.38		
UPPER LIMIT				10.48		
LOWER LIMIT				10.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-211453/4		12/18/2015 10:04	A0121804.D	10.38		
MB 240-211450/1-A		12/18/2015 10:42	A0121805.D	10.38		
LCS 240-211450/2-A		12/18/2015 11:18	A0121806.D	10.38		
240-59150-1	D-SD-WC-1	12/18/2015 13:43	A0121810.D	10.38		
CCV 240-211453/15		12/18/2015 16:49	A0121815.D	10.38		
180-50773-A-11-B MS		12/18/2015 21:47	A0121823.D	10.38		
180-50773-A-11-C MSD		12/18/2015 22:22	A0121824.D	10.38		
CCV 240-211453/26		12/18/2015 23:36	A0121826.D	10.38		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: A0121810.D

Analysis Method: 8015C | Date Collected: 12/15/2015 14:00

Sample wt/vol: 4.98(g) | Date Analyzed: 12/18/2015 13:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 24.6 | Level: (low/med) Low

Analysis Batch No.: 211453 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	61	U	130	61

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	79		40-139

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 194508

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2015 13:59 Calibration End Date: 08/24/2015 17:07 Calibration ID: 30361

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194508/7	A0082107.D
Level 2	STD2 240-194508/8	A0082108.D
Level 3	STD3 240-194508/9	A0082109.D
Level 4	STD4 240-194508/10	A0082110.D
Level 5	STD5 240-194508/11	A0082111.D
Level 6	STD6 240-194508/12	A0082112.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.460	11.460	11.460	11.460	11.460	11.460					5.807 - 17.114	11.460
C6-C12	12.725	12.725	12.725	12.725	12.725	12.725					5.807 - 19.644	12.725
Trifluorotoluene (Surr)	10.344	10.348	10.347	10.341	10.339	10.339					10.290 - 10.390	10.343

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 194508

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2015 13:59 Calibration End Date: 08/24/2015 17:07 Calibration ID: 30361

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194508/7	A0082107.D
Level 2	STD2 240-194508/8	A0082108.D
Level 3	STD3 240-194508/9	A0082109.D
Level 4	STD4 240-194508/10	A0082110.D
Level 5	STD5 240-194508/11	A0082111.D
Level 6	STD6 240-194508/12	A0082112.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	281051 441376	404289 439409	445616	417800	Ave		404923.648				15.5		20.0			
C6-C12	344884 484706	442549 478304	494744	455788	Ave		450162.318				12.2		20.0			
Trifluorotoluene (Surr)	452208 466474	509634 371094	436510	429984	Ave		444317.252				10.3		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 194508

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2015 13:59 Calibration End Date: 08/24/2015 17:07 Calibration ID: 30361

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194508/7	A0082107.D
Level 2	STD2 240-194508/8	A0082108.D
Level 3	STD3 240-194508/9	A0082109.D
Level 4	STD4 240-194508/10	A0082110.D
Level 5	STD5 240-194508/11	A0082111.D
Level 6	STD6 240-194508/12	A0082112.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	28105105 703054501	80857808	178246588	334240056	529651436	100 1600	200	400	800	1200
C6-C12	Ave	34488374 765287082	88509751	197897550	364630076	581646620	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	452208 18554703	1019267	2182548	4299843	9329481	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-194508/13 Calibration Date: 08/24/2015 17:45

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0082113.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	404924	425225		840	800	5.0	20.0
C6-C12	Ave	450162	466294		829	800	3.6	20.0
Trifluorotoluene (Surr)	Ave	444317	487053		11.0	10.0	9.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-194508/13 Calibration Date: 08/24/2015 17:45

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0082113.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.46	5.81	17.11
C6-C12	12.73	5.81	19.64
Trifluorotoluene (Surr)	10.34	10.29	10.39

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVRT 240-211453/4 Calibration Date: 12/18/2015 10:04

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0121804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	404924	422408		835	800	4.3	20.0
C6-C12	Ave	450162	460611		819	800	2.3	20.0
Trifluorotoluene (Surr)	Ave	444317	398052		8.96	10.0	-10.4	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCVRT 240-211453/4 Calibration Date: 12/18/2015 10:04

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0121804.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.57	5.95	17.15
C6-C12	12.82	5.95	19.66
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211453/15 Calibration Date: 12/18/2015 16:49

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0121815.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	404924	422374		834	800	4.3	20.0
C6-C12	Ave	450162	456782		812	800	1.5	20.0
Trifluorotoluene (Surr)	Ave	444317	415368		9.35	10.0	-6.5	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211453/15 Calibration Date: 12/18/2015 16:49

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0121815.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.57	5.95	17.15
C6-C12	12.82	5.95	19.66
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211453/26 Calibration Date: 12/18/2015 23:36

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0121826.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	404924	419448		829	800	3.6	20.0
C6-C12	Ave	450162	453616		806	800	0.8	20.0
Trifluorotoluene (Surr)	Ave	444317	414353		9.33	10.0	-6.7	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211453/26 Calibration Date: 12/18/2015 23:36

Instrument ID: AFID Calib Start Date: 08/24/2015 13:59

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 08/24/2015 17:07

Lab File ID: A0121826.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.55	5.95	17.15
C6-C12	12.81	5.95	19.66
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-211450/1-A

Matrix: Solid Lab File ID: A0121805.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 12/18/2015 10:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211453 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	46	U	100	46

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	75		40-139

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-211450/2-A

Matrix: Solid Lab File ID: A0121806.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 12/18/2015 11:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211453 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	795		100	46

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	97		40-139

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: 180-50773-A-11-B MS

Matrix: Solid | Lab File ID: A0121823.D

Analysis Method: 8015C | Date Collected: 12/14/2015 10:15

Sample wt/vol: 5.03(g) | Date Analyzed: 12/18/2015 21:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 52.2 | Level: (low/med) Low

Analysis Batch No.: 211453 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	1500		210	96

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	91		40-139

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: 180-50773-A-11-C MSD

Matrix: Solid | Lab File ID: A0121824.D

Analysis Method: 8015C | Date Collected: 12/14/2015 10:15

Sample wt/vol: 5.04(g) | Date Analyzed: 12/18/2015 22:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 52.2 | Level: (low/med) Low

Analysis Batch No.: 211453 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	1360		210	95

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		40-139

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: AFID Start Date: 08/24/2015 13:59

Analysis Batch Number: 194508 End Date: 08/24/2015 17:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-194508/7 IC		08/24/2015 13:59	1	A0082107.D	RTX-VRX 0.45(mm)
STD2 240-194508/8 IC		08/24/2015 14:37	1	A0082108.D	RTX-VRX 0.45(mm)
STD3 240-194508/9 IC		08/24/2015 15:14	1	A0082109.D	RTX-VRX 0.45(mm)
STD4 240-194508/10 ICRT		08/24/2015 15:53	1	A0082110.D	RTX-VRX 0.45(mm)
STD5 240-194508/11 IC		08/24/2015 16:31	1	A0082111.D	RTX-VRX 0.45(mm)
STD6 240-194508/12 IC		08/24/2015 17:07	1	A0082112.D	RTX-VRX 0.45(mm)
ICV 240-194508/13		08/24/2015 17:45	1	A0082113.D	RTX-VRX 0.45(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: AFID Start Date: 12/18/2015 10:04

Analysis Batch Number: 211453 End Date: 12/18/2015 23:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-211453/4		12/18/2015 10:04	1	A0121804.D	RTX-VRX 0.45(mm)
MB 240-211450/1-A		12/18/2015 10:42	1	A0121805.D	RTX-VRX 0.45(mm)
LCS 240-211450/2-A		12/18/2015 11:18	1	A0121806.D	RTX-VRX 0.45(mm)
240-59150-1	D-SD-WC-1	12/18/2015 13:43	1	A0121810.D	RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 14:21	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 14:56	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 15:35	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 16:12	1		RTX-VRX 0.45(mm)
CCV 240-211453/15		12/18/2015 16:49	1	A0121815.D	RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 17:27	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 18:03	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 18:41	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 19:18	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 19:54	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 20:32	1		RTX-VRX 0.45(mm)
ZZZZZ		12/18/2015 21:08	1		RTX-VRX 0.45(mm)
180-50773-A-11-B MS		12/18/2015 21:47	1	A0121823.D	RTX-VRX 0.45(mm)
180-50773-A-11-C MSD		12/18/2015 22:22	1	A0121824.D	RTX-VRX 0.45(mm)
CCV 240-211453/26		12/18/2015 23:36	1	A0121826.D	RTX-VRX 0.45(mm)

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211450 Batch Start Date: 12/18/15 07:47 Batch Analyst: Reed, Rachel T

Batch Method: 5030A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 240-211450/1-A		5030A, 8015C		5 g	5 mL				
LCS 240-211450/2-A		5030A, 8015C		5 g	5 mL				
240-59150-1	D-SD-WC-1	5030A, 8015C	T	4.98 g	5 mL				
180-50773-A-11-B MS		5030A, 8015C	T	5.03 g	5 mL				
180-50773-A-11-C MSD		5030A, 8015C	T	5.04 g	5 mL				

Batch Notes	
Balance ID	B045
Blank Soil Lot Number	1757979

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8015C - DRO

Nonhalogenated Organics using GC/FID - Modified (Diesel Range Organics) by Method 8015C

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	OTPH1 #
D-SD-WC-1	240-59150-1	88
	MB 240-211226/16-A	86
	LCS 240-211226/17-A	83
	240-59196-B-12-B MS	88
	240-59196-B-12-C MSD	94

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5F21813.D

Lab ID: LCS 240-211226/17-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	84.0	62.0	74	52-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5F21827.D

Lab ID: 240-59196-B-12-B MS Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
Diesel	97.0	21	87.7	69	10-124	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5F21828.D

Lab ID: 240-59196-B-12-C MSD Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diesel	97.6	91.8	72	5	40	10-124	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: MB 240-211226/16-A

Matrix: Solid Date Extracted: 12/17/2015 07:40

Lab File ID:(1) P5F21812.D Lab File ID:(2)

Date Analyzed:(1) 12/18/2015 19:52 Date Analyzed:(2)

Instrument ID:(1) A2HP5F Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-211226/17-A	12/18/2015 20:23	
	240-59196-B-12-B MS	12/19/2015 03:37	
	240-59196-B-12-C MSD	12/19/2015 04:08	
D-SD-WC-1	240-59150-1	12/19/2015 04:39	

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD3 240-210457/10 Date Analyzed: 12/11/2015 18:19

Instrument ID: A2HP5F GC Column: ID: ()

Lab File ID (Standard): P5F21110.D Heated Purge: (Y/N) N

Calibration ID: 32080

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				9.84		
UPPER LIMIT				9.94		
LOWER LIMIT				9.74		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-210457/10 ICRT		12/11/2015 18:19	P5F21110.D	9.84		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211542/7 Date Analyzed: 12/18/2015 17:15

Instrument ID: A2HP5F GC Column: ID: ()

Lab File ID (Standard): P5F21807.D Heated Purge: (Y/N) N

Calibration ID: 32080

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.84		
UPPER LIMIT				9.94		
LOWER LIMIT				9.74		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-211542/7 CCVRT		12/18/2015 17:15	P5F21807.D	9.84		
CCV 240-211542/11		12/18/2015 19:21	P5F21811.D	9.84		
MB 240-211226/16-A		12/18/2015 19:52	P5F21812.D	9.84		
LCS 240-211226/17-A		12/18/2015 20:23	P5F21813.D	9.84		
CCV 240-211542/22		12/19/2015 01:03	P5F21822.D	9.84		
240-59196-B-12-B MS		12/19/2015 03:37	P5F21827.D	9.84		
240-59196-B-12-C MSD		12/19/2015 04:08	P5F21828.D	9.84		
240-59150-1	D-SD-WC-1	12/19/2015 04:39	P5F21829.D	9.84		
CCV 240-211542/30		12/19/2015 05:10	P5F21830.D	9.84		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: P5F21829.D

Analysis Method: 8015C | Date Collected: 12/15/2015 14:00

Extraction Method: 3540C | Date Extracted: 12/17/2015 07:40

Sample wt/vol: 29.63(g) | Date Analyzed: 12/19/2015 04:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: 24.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211542 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	120	B	22	8.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	88		40-160

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210457

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 17:00 Calibration End Date: 12/11/2015 19:39 Calibration ID: 32080

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210457/8	P5F21108.D
Level 2	STD2 240-210457/9	P5F21109.D
Level 3	STD3 240-210457/10	P5F21110.D
Level 4	STD4 240-210457/11	P5F21111.D
Level 5	STD5 240-210457/12	P5F21112.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	9.334	9.334	9.334	9.334	9.334						5.118 - 13.551	9.334
o-Terphenyl (Surr)	9.835	9.836	9.837	9.838	9.840						9.735 - 9.935	9.837

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210457

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 17:00 Calibration End Date: 12/11/2015 19:39 Calibration ID: 32080

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210457/8	P5F21108.D
Level 2	STD2 240-210457/9	P5F21109.D
Level 3	STD3 240-210457/10	P5F21110.D
Level 4	STD4 240-210457/11	P5F21111.D
Level 5	STD5 240-210457/12	P5F21112.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	156544 134522	139315	139028	130044	Ave		139890.741				7.2		20.0			
o-Terphenyl (Surr)	166040 172555	155445	168395	159963	Ave		164479.356				4.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210457

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 17:00 Calibration End Date: 12/11/2015 19:39 Calibration ID: 32080

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210457/8	P5F21108.D
Level 2	STD2 240-210457/9	P5F21109.D
Level 3	STD3 240-210457/10	P5F21110.D
Level 4	STD4 240-210457/11	P5F21111.D
Level 5	STD5 240-210457/12	P5F21112.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	15654411	27863003	69514146	130044202	269044173	100	200	500	1000	2000
o-Terphenyl (Surr)	Ave	1328317	2487115	6735786	12797061	27608729	8.00	16.0	40.0	80.0	160

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210457/13 Calibration Date: 12/11/2015 20:19

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21113.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	139891	132891		476	502	-5.0	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210457/13 Calibration Date: 12/11/2015 20:19

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21113.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.33	5.12	13.55

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/7 Calibration Date: 12/18/2015 17:15

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21807.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	139891	145788		521	500	4.2	20.0
o-Terphenyl (Surr)	Ave	164479	183200		44.6	40.0	11.4	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/7 Calibration Date: 12/18/2015 17:15

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21807.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.33	5.10	13.55
o-Terphenyl (Surr)	9.84	9.74	9.94

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/11 Calibration Date: 12/18/2015 19:21

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21811.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	139891	125371		448	500	-10.4	20.0
o-Terphenyl (Surr)	Ave	164479	182729		44.4	40.0	11.1	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/11 Calibration Date: 12/18/2015 19:21

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21811.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.33	5.10	13.55
o-Terphenyl (Surr)	9.84	9.74	9.94

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/22 Calibration Date: 12/19/2015 01:03

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21822.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	139891	122436		438	500	-12.5	20.0
o-Terphenyl (Surr)	Ave	164479	162123		39.4	40.0	-1.4	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/22 Calibration Date: 12/19/2015 01:03

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21822.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.33	5.10	13.55
o-Terphenyl (Surr)	9.84	9.74	9.94

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/30 Calibration Date: 12/19/2015 05:10

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21830.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	139891	133642		478	500	-4.5	20.0
o-Terphenyl (Surr)	Ave	164479	174922		42.5	40.0	6.3	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211542/30 Calibration Date: 12/19/2015 05:10

Instrument ID: A2HP5F Calib Start Date: 12/11/2015 17:00

GC Column: ID: Calib End Date: 12/11/2015 19:39

Lab File ID: P5F21830.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.33	5.10	13.55
o-Terphenyl (Surr)	9.84	9.74	9.94

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211226/16-A

Matrix: Solid | Lab File ID: P5F21812.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3540C | Date Extracted: 12/17/2015 07:40

Sample wt/vol: 30(g) | Date Analyzed: 12/18/2015 19:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211542 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	9.02	J	17	6.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	86		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211226/17-A

Matrix: Solid | Lab File ID: P5F21813.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3540C | Date Extracted: 12/17/2015 07:40

Sample wt/vol: 30(g) | Date Analyzed: 12/18/2015 20:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211542 | Units: mg/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-59196-B-12-B MS

Matrix: Solid | Lab File ID: P5F21827.D

Analysis Method: 8015C | Date Collected: 12/15/2015 12:43

Extraction Method: 3540C | Date Extracted: 12/17/2015 07:40

Sample wt/vol: 29.77(g) | Date Analyzed: 12/19/2015 03:37

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: 12.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211542 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	92.7		19	7.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	88		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-59196-B-12-C MSD

Matrix: Solid | Lab File ID: P5F21828.D

Analysis Method: 8015C | Date Collected: 12/15/2015 12:43

Extraction Method: 3540C | Date Extracted: 12/17/2015 07:40

Sample wt/vol: 29.59(g) | Date Analyzed: 12/19/2015 04:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: ID:

% Moisture: 12.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211542 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	96.1		19	7.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	94		40-160

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP5F Start Date: 12/11/2015 17:00

Analysis Batch Number: 210457 End Date: 12/12/2015 02:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-210457/8 IC		12/11/2015 17:00	1	P5F21108.D	
STD2 240-210457/9 IC		12/11/2015 17:40	1	P5F21109.D	
STD3 240-210457/10 ICRT		12/11/2015 18:19	1	P5F21110.D	
STD4 240-210457/11 IC		12/11/2015 18:59	1	P5F21111.D	
STD5 240-210457/12 IC		12/11/2015 19:39	1	P5F21112.D	
ICV 240-210457/13		12/11/2015 20:19	1	P5F21113.D	
ZZZZZ		12/11/2015 20:58	1		
ZZZZZ		12/11/2015 21:38	1		
ZZZZZ		12/11/2015 23:37	1		
ZZZZZ		12/12/2015 00:17	1		
ZZZZZ		12/12/2015 00:57	1		
ZZZZZ		12/12/2015 01:37	1		
CCV 240-210457/22		12/12/2015 02:17	1		

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP5F Start Date: 12/18/2015 17:15

Analysis Batch Number: 211542 End Date: 12/19/2015 05:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-211542/7 CCVRT		12/18/2015 17:15	1	P5F21807.D	
ZZZZZ		12/18/2015 17:47	1		
ZZZZZ		12/18/2015 18:18	1		
ZZZZZ		12/18/2015 18:50	1		
CCV 240-211542/11		12/18/2015 19:21	1	P5F21811.D	
MB 240-211226/16-A		12/18/2015 19:52	1	P5F21812.D	
LCS 240-211226/17-A		12/18/2015 20:23	1	P5F21813.D	
ZZZZZ		12/18/2015 20:54	1		
ZZZZZ		12/18/2015 21:25	1		
ZZZZZ		12/18/2015 21:56	1		
ZZZZZ		12/18/2015 22:27	1		
ZZZZZ		12/18/2015 22:58	1		
ZZZZZ		12/18/2015 23:29	1		
ZZZZZ		12/19/2015 00:01	1		
ZZZZZ		12/19/2015 00:32	1		
CCV 240-211542/22		12/19/2015 01:03	1	P5F21822.D	
ZZZZZ		12/19/2015 01:34	1		
ZZZZZ		12/19/2015 02:05	1		
ZZZZZ		12/19/2015 02:36	1		
ZZZZZ		12/19/2015 03:07	1		
240-59196-B-12-B MS		12/19/2015 03:37	1	P5F21827.D	
240-59196-B-12-C MSD		12/19/2015 04:08	1	P5F21828.D	
240-59150-1	D-SD-WC-1	12/19/2015 04:39	1	P5F21829.D	
CCV 240-211542/30		12/19/2015 05:10	1	P5F21830.D	

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211226 Batch Start Date: 12/17/15 11:05 Batch Analyst: Newsome, Yvonne D

Batch Method: 3540C Batch End Date: 12/18/15 03:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exDIESELSPKw 00069	exOTPSURRW 00007		
240-59196-B-12-B MS		3540C, 8015C	T	29.77 g	5 mL	1 mL	1 mL		
240-59196-B-12-C MSD		3540C, 8015C	T	29.59 g	5 mL	1 mL	1 mL		
240-59150-1	D-SD-WC-1	3540C, 8015C	T	29.63 g	5 mL		1 mL		
MB 240-211226/16-A		3540C, 8015C		30 g	5 mL		1 mL		
LCS 240-211226/17-A		3540C, 8015C		30 g	5 mL	1 mL	1 mL		

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2204511
Prep Solvent Lot #	2313329

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8081B

Organochlorine Pesticides (GC) by Method 8081B

FORM II
PESTICIDES SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCB1 #	DCB2 #
D-SD-WC-1	240-59150-1	83	80	85	93
	MB 240-211299/3-A	76	73	75	78
	LCS 240-211299/4-A	79	74	79	78
D-SD-WC-1 MS	240-59150-1 MS	90	99	86	101

	QC LIMITS
TCX = Tetrachloro-m-xylene	34-121
DCB = DCB Decachlorobiphenyl	10-141

Column to be used to flag recovery values

FORM II 8081B

FORM III
PESTICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P3122118.D

Lab ID: LCS 240-211299/4-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Endrin	0.000400	0.000341 J	85	49-150	
Heptachlor	0.000400	0.000293 J	73	40-129	
Heptachlor epoxide	0.000400	0.000334 J	84	42-137	
gamma-BHC (Lindane)	0.000400	0.000277 J	69	22-144	
Methoxychlor	0.000800	0.000641 J	80	35-147	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: P3122116.D

Lab ID: 240-59150-1 MS Client ID: D-SD-WC-1 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Endrin	0.000400	0.000013 U	0.000395 J	99	43-138	
Heptachlor	0.000400	0.000014 U	0.000380 J	95	42-120	
Heptachlor epoxide	0.000400	0.000015 U	0.000389 J	97	48-120	
gamma-BHC (Lindane)	0.000400	0.000013 U	0.000228 J	57	32-120	p
Methoxychlor	0.000800	0.000013 U	0.000726 J	91	45-127	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM IV
PESTICIDES METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: MB 240-211299/3-A

Matrix: Water Date Extracted: 12/17/2015 10:41

Lab File ID:(1) P3122117.D Lab File ID:(2) P3122117.D

Date Analyzed:(1) 12/21/2015 17:37 Date Analyzed:(2) 12/21/2015 17:37

Instrument ID:(1) A2HP3 Instrument ID:(2) A2HP3

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
D-SD-WC-1	240-59150-1	12/21/2015 16:50	12/21/2015 16:50
D-SD-WC-1 MS	240-59150-1 MS	12/21/2015 17:13	12/21/2015 17:13
	LCS 240-211299/4-A	12/21/2015 18:00	12/21/2015 18:00

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD 240-210206/8 Date Analyzed: 12/11/2015 12:55

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P3121108.D Heated Purge: (Y/N) N

Calibration ID: 32043

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		114634300	2.92				
UPPER LIMIT		229268600	3.42				
LOWER LIMIT		57317150	2.42				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-210206/12		124825640	2.92				
CCV 240-211762/6 CCVIS		122737989	2.88				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD 240-210206/8 Date Analyzed: 12/11/2015 12:55

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P3121108.D Heated Purge: (Y/N) N

Calibration ID: 32044

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		103292436	3.30				
UPPER LIMIT		206584872	3.80				
LOWER LIMIT		51646218	2.80				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-210206/12		113099436	3.30				
CCV 240-211762/6 CCVIS		104558282	3.26				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211762/6 Date Analyzed: 12/21/2015 13:22

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P3122106.D Heated Purge: (Y/N) N

Calibration ID: 32060

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		122737989	2.88				
UPPER LIMIT		245475978	3.38				
LOWER LIMIT		61368995	2.38				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211762/7		143873445	2.88				
CCV 240-211762/8		121427246	2.88				
240-59150-1	D-SD-WC-1	123003525	2.88				
240-59150-1 MS	D-SD-WC-1 MS	126733388	2.88				
MB 240-211299/3-A		154502767	2.88				
LCS 240-211299/4-A		144563515	2.88				

BNB = 1-Bromo-2-nitrobenzene
BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
PESTICIDES INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211762/6 Date Analyzed: 12/21/2015 13:22

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P3122106.D Heated Purge: (Y/N) N

Calibration ID: 32061

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		104558282	3.26				
UPPER LIMIT		209116564	3.76				
LOWER LIMIT		52279141	2.76				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211762/7		122580193	3.26				
CCV 240-211762/8		104145367	3.26				
240-59150-1	D-SD-WC-1	108490293	3.26				
240-59150-1 MS	D-SD-WC-1 MS	120329310	3.26				
MB 240-211299/3-A		132575805	3.26				
LCS 240-211299/4-A		121583301	3.26				

BNB = 1-Bromo-2-nitrobenzene
BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS Lab Sample ID: 240-59150-1 MS

Instrument ID (1): A2HP3 Instrument ID (2): A2HP3

Date Analyzed (1): 12/21/2015 17:13 Date Analyzed (2): 12/21/2015 17:13

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
gamma-BHC (Lindane)	1		6.18	6.15	6.21	0.000228		42.6
	2		5.09	5.06	5.12	0.000352		
Heptachlor	1		7.20	7.17	7.23	0.000282		29.7
	2		5.85	5.82	5.88	0.000380		
Heptachlor epoxide	1		9.35	9.32	9.38	0.000386		0.9
	2		7.86	7.84	7.90	0.000389		
Endrin	1		11.09	11.06	11.12	0.000366		7.7
	2		9.65	9.62	9.68	0.000395		
Methoxychlor	1		12.92	12.89	12.95	0.000696		4.2
	2		11.35	11.33	11.39	0.000726		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-211299/4-A

Instrument ID (1): A2HP3 Instrument ID (2): A2HP3

Date Analyzed (1): 12/21/2015 18:00 Date Analyzed (2): 12/21/2015 18:00

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
gamma-BHC (Lindane)	1		6.19	6.15	6.21	0.000220		22.7
	2		5.08	5.06	5.12	0.000277		
Heptachlor	1		7.20	7.17	7.23	0.000258		12.6
	2		5.85	5.82	5.88	0.000293		
Heptachlor epoxide	1		9.35	9.32	9.38	0.000334		1.6
	2		7.86	7.84	7.90	0.000329		
Endrin	1		11.09	11.06	11.12	0.000341		8.7
	2		9.65	9.62	9.68	0.000313		
Methoxychlor	1		12.92	12.89	12.95	0.000641		4.2
	2		11.35	11.33	11.39	0.000614		

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid (TCLP) | Lab File ID: P3122115.D

Analysis Method: 8081B | Date Collected: 12/15/2015 14:00

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 16:50

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
57-74-9	Chlordane (technical)	0.00014	U	0.0050	0.00014
72-20-8	Endrin	0.000013	U	0.00050	0.000013
76-44-8	Heptachlor	0.000014	U	0.00050	0.000014
1024-57-3	Heptachlor epoxide	0.000015	U	0.00050	0.000015
58-89-9	gamma-BHC (Lindane)	0.000013	U	0.00050	0.000013
72-43-5	Methoxychlor	0.000013	U	0.0010	0.000013
8001-35-2	Toxaphene	0.00020	U	0.020	0.00020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	93		10-141
877-09-8	Tetrachloro-m-xylene	80		34-121

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 Lab Sample ID: 240-59150-1

Matrix: Solid (TCLP) Lab File ID: P3122115.D

Analysis Method: 8081B Date Collected: 12/15/2015 14:00

Extraction Method: 3520C Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) Date Analyzed: 12/21/2015 16:50

Con. Extract Vol.: 3(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 Units: mg/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	85		10-141
877-09-8	Tetrachloro-m-xylene	83		34-121

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32043

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210206/6	P3121106.D
Level 2	STD 240-210206/7	P3121107.D
Level 3	STD 240-210206/8	P3121108.D
Level 4	STD 240-210206/9	P3121109.D
Level 5	STD 240-210206/10	P3121110.D
Level 6	STD 240-210206/11	P3121111.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
alpha-BHC	1.3789 1.5649	1.4158	1.5773	1.5736	1.5658	Ave		1.5127				6.0		20.0			
gamma-BHC (Lindane)	1.2737 1.3802	1.2844	1.4040	1.3923	1.3990	Ave		1.3556				4.4		20.0			
beta-BHC	0.5985 0.5444	0.5710	0.5932	0.5687	0.5543	Ave		0.5717				3.7		20.0			
delta-BHC	1.2273 1.4454	1.2689	1.4294	1.4371	1.4398	Ave		1.3746				7.2		20.0			
Heptachlor	1.3811 1.2956	1.3694	1.4638	1.4160	1.3646	Ave		1.3818				4.1		20.0			
Aldrin	1.2215 1.2365	1.2049	1.3112	1.2866	1.2726	Ave		1.2556				3.3		20.0			
Heptachlor epoxide	1.1826 1.0579	1.1507	1.2169	1.1673	1.1195	Ave		1.1492				4.8		20.0			
gamma-Chlordane	1.1642 1.2000	1.1460	1.2377	1.2230	1.2106	Ave		1.1969				2.9		20.0			
alpha-Chlordane	1.1785 1.1574	1.1497	1.2285	1.1961	1.1752	Ave		1.1809				2.4		20.0			
Endosulfan I	1.1117 0.9758	1.0814	1.1519	1.0987	1.0477	Ave		1.0779				5.6		20.0			
4,4'-DDE	1.0348 1.1344	1.0166	1.1157	1.1148	1.1177	Ave		1.0890				4.6		20.0			
Dieldrin	1.1494 1.1169	1.1405	1.2397	1.2071	1.1662	Ave		1.1700				3.9		20.0			
Endrin	1.0594 0.9939	1.0472	1.1223	1.0844	1.0453	Ave		1.0588				4.1		20.0			
4,4'-DDD	0.8012 0.8979	0.7846	0.8922	0.8960	0.8957	Ave		0.8613				6.2		20.0			
Endosulfan II	1.0821 0.9306	1.0333	1.0898	1.0292	0.9842	Ave		1.0249				5.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32043

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
4,4'-DDT	0.9579 1.0139	0.9357	1.0225	1.0163	1.0116	Ave		0.9930				3.7		20.0			
Endrin aldehyde	0.8589 0.7220	0.8189	0.8489	0.7889	0.7628	Ave		0.8001				6.6		20.0			
Methoxychlor	0.5426 0.4325	0.5091	0.5193	0.4866	0.4620	Ave		0.4920				8.2		20.0			
Endosulfan sulfate	0.9896 0.8494	0.9421	0.9864	0.9345	0.8975	Ave		0.9333				5.7		20.0			
Endrin ketone	1.0514 0.9400	1.0657	1.1135	1.0474	0.9948	Ave		1.0355				5.8		20.0			
Tetrachloro-m-xylene	0.8787 0.8439	0.8581	0.9162	0.8858	0.8630	Ave		0.8743				2.9		20.0			
DCB Decachlorobiphenyl	1.0704 0.8429	0.9816	0.9885	0.9053	0.8606	Ave		0.9416				9.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32043

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210206/6	P3121106.D
Level 2	STD 240-210206/7	P3121107.D
Level 3	STD 240-210206/8	P3121108.D
Level 4	STD 240-210206/9	P3121109.D
Level 5	STD 240-210206/10	P3121110.D
Level 6	STD 240-210206/11	P3121111.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
alpha-BHC	BNB	Ave	16673513 796074153	34623362	90407652	203051990	388070901	5.00 200	10.0	25.0	50.0	100
gamma-BHC (Lindane)	BNB	Ave	15401697 702104628	31411144	80473242	179653975	346734571	5.00 200	10.0	25.0	50.0	100
beta-BHC	BNB	Ave	7236606 276937940	13963368	33999012	73381604	137385783	5.00 200	10.0	25.0	50.0	100
delta-BHC	BNB	Ave	14840265 735292673	31031350	81930732	185434627	356844944	5.00 200	10.0	25.0	50.0	100
Heptachlor	BNB	Ave	16700560 659069378	33489954	83901055	182710464	338215404	5.00 200	10.0	25.0	50.0	100
Aldrin	BNB	Ave	14770780 629023177	29466489	75152461	166021050	315402426	5.00 200	10.0	25.0	50.0	100
Heptachlor epoxide	BNB	Ave	14299601 538172310	28140837	69751617	150623550	277468682	5.00 200	10.0	25.0	50.0	100
gamma-Chlordane	BNB	Ave	14076879 610452620	28025202	70941481	157808023	300042458	5.00 200	10.0	25.0	50.0	100
alpha-Chlordane	BNB	Ave	14249831 588784916	28115389	70413783	154338355	291278923	5.00 200	10.0	25.0	50.0	100
Endosulfan I	BNB	Ave	13442641 496399609	26445675	66020986	141777757	259673929	5.00 200	10.0	25.0	50.0	100
4,4'-DDE	BNB	Ave	12513025 577097711	24860652	63950982	143843590	277023464	5.00 200	10.0	25.0	50.0	100
Dieldrin	BNB	Ave	13897867 568188175	27891616	71054594	155760563	289045893	5.00 200	10.0	25.0	50.0	100
Endrin	BNB	Ave	12810639 505602968	25609949	64329483	139921630	259074782	5.00 200	10.0	25.0	50.0	100
4,4'-DDD	BNB	Ave	9688257 456796155	19188706	51140690	115616900	221999707	5.00 200	10.0	25.0	50.0	100
Endosulfan II	BNB	Ave	13084853 473432862	25268893	62462471	132808254	243941028	5.00 200	10.0	25.0	50.0	100
4,4'-DDT	BNB	Ave	11582846 515788132	22883153	58607083	131143754	250728600	5.00 200	10.0	25.0	50.0	100

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32043

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Endrin aldehyde	BNB	Ave	10386140 367269720	20025955	48655321	101798332	189050993	5.00 200	10.0	25.0	50.0	100
Methoxychlor	BNB	Ave	6561056 220021166	12450928	29763564	62789402	114492776	5.00 200	10.0	25.0	50.0	100
Endosulfan sulfate	BNB	Ave	11966583 432081954	23040734	56535182	120588260	222436994	5.00 200	10.0	25.0	50.0	100
Endrin ketone	BNB	Ave	12713189 478200262	26063011	63823617	135149921	246546627	5.00 200	10.0	25.0	50.0	100
Tetrachloro-m-xylene	BNB	Ave	10625096 429318909	20986407	52512275	114296427	213897955	5.00 200	10.0	25.0	50.0	100
DCB Decachlorobiphenyl	BNB	Ave	12943540 428797075	24004496	56657623	116818930	213296894	5.00 200	10.0	25.0	50.0	100

Curve Type Legend:
Ave = Average ISTD

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32044

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210206/6	P3121106.D
Level 2	STD 240-210206/7	P3121107.D
Level 3	STD 240-210206/8	P3121108.D
Level 4	STD 240-210206/9	P3121109.D
Level 5	STD 240-210206/10	P3121110.D
Level 6	STD 240-210206/11	P3121111.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
alpha-BHC	1.3499 1.5769	1.4100	1.5965	1.5937	1.5913	Ave		1.5197				7.2		20.0			
gamma-BHC (Lindane)	1.2844 1.4520	1.3199	1.4769	1.4702	1.4649	Ave		1.4114				6.1		20.0			
beta-BHC	0.6046 0.5727	0.5917	0.6194	0.5914	0.5829	Ave		0.5938				2.8		20.0			
delta-BHC	1.1847 1.4623	1.2204	1.4178	1.4415	1.4593	Ave		1.3643				9.3		20.0			
Heptachlor	1.3754 1.3768	1.3689	1.5100	1.4755	1.4384	Ave		1.4242				4.2		20.0			
Aldrin	1.1977 1.2831	1.2043	1.3431	1.3226	1.3143	Ave		1.2775				4.9		20.0			
Heptachlor epoxide	1.1292 1.0531	1.1071	1.1805	1.1331	1.1009	Ave		1.1173				3.8		20.0			
gamma-Chlordane	1.1198 1.1699	1.1105	1.2151	1.1933	1.1822	Ave		1.1652				3.6		20.0			
alpha-Chlordane	1.1045 1.1096	1.0844	1.1746	1.1440	1.1278	Ave		1.1242				2.8		20.0			
Endosulfan I	1.0561 0.9728	1.0351	1.1034	1.0592	1.0221	Ave		1.0415				4.2		20.0			
4,4'-DDE	1.0171 1.0802	0.9922	1.1053	1.0804	1.0808	Ave		1.0593				4.2		20.0			
Dieldrin	1.0783 1.0840	1.0743	1.1756	1.1361	1.1144	Ave		1.1105				3.6		20.0			
Endrin	0.9574 0.9544	0.9493	1.0291	1.0020	0.9836	Ave		0.9793				3.2		20.0			
4,4'-DDD	0.7158 0.8427	0.7129	0.8181	0.8243	0.8375	Ave		0.7919				7.7		20.0			
Endosulfan II	0.9776 0.9140	0.9558	1.0267	0.9721	0.9489	Ave		0.9659				3.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32044

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
4,4'-DDT	0.8288 0.9328	0.8197	0.9126	0.9117	0.9233	Ave		0.8881				5.7		20.0			
Endrin aldehyde	0.7815 0.7059	0.7380	0.7843	0.7288	0.7247	Ave		0.7439				4.3		20.0			
Endosulfan sulfate	0.8998 0.8363	0.8606	0.9112	0.8697	0.8572	Ave		0.8725				3.2		20.0			
Methoxychlor	0.4984 0.4253	0.4655	0.4703	0.4426	0.4352	Ave		0.4562				5.9		20.0			
Endrin ketone	0.9725 0.9226	0.9455	1.0062	0.9607	0.9469	Ave		0.9591				3.0		20.0			
Tetrachloro-m-xylene	0.8853 0.8577	0.8657	0.9367	0.8986	0.8785	Ave		0.8871				3.2		20.0			
DCB Decachlorobiphenyl	0.9973 0.8088	0.9087	0.9301	0.8571	0.8212	Ave		0.8872				8.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32044

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210206/6	P3121106.D
Level 2	STD 240-210206/7	P3121107.D
Level 3	STD 240-210206/8	P3121108.D
Level 4	STD 240-210206/9	P3121109.D
Level 5	STD 240-210206/10	P3121110.D
Level 6	STD 240-210206/11	P3121111.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
alpha-BHC	BNB	Ave	14727173 721882003	31193202	82452753	186132897	354582036	5.00 200	10.0	25.0	50.0	100
gamma-BHC (Lindane)	BNB	Ave	14011997 664668901	29199516	76278453	171710395	326419681	5.00 200	10.0	25.0	50.0	100
beta-BHC	BNB	Ave	6596346 262176945	13090318	31987215	69076604	129878704	5.00 200	10.0	25.0	50.0	100
delta-BHC	BNB	Ave	12924557 669417503	26998974	73223288	168357184	325157712	5.00 200	10.0	25.0	50.0	100
Heptachlor	BNB	Ave	15004759 630280596	30283811	77985758	172327589	320508085	5.00 200	10.0	25.0	50.0	100
Aldrin	BNB	Ave	13066564 587346363	26643146	69366825	154466170	292858965	5.00 200	10.0	25.0	50.0	100
Heptachlor epoxide	BNB	Ave	12319469 482066487	24493439	60967169	132338343	245305215	5.00 200	10.0	25.0	50.0	100
gamma-Chlordane	BNB	Ave	12216523 535568564	24568138	62754865	139374920	263424407	5.00 200	10.0	25.0	50.0	100
alpha-Chlordane	BNB	Ave	12049978 507944538	23990659	60665001	133607939	251300556	5.00 200	10.0	25.0	50.0	100
Endosulfan I	BNB	Ave	11521714 445341117	22900233	56986155	123713757	227737953	5.00 200	10.0	25.0	50.0	100
4,4'-DDE	BNB	Ave	11096512 494463817	21951658	57085754	126178515	240835099	5.00 200	10.0	25.0	50.0	100
Dieldrin	BNB	Ave	11763492 496219421	23767443	60716296	132686957	248318955	5.00 200	10.0	25.0	50.0	100
Endrin	BNB	Ave	10444540 436913756	21000919	53147514	117033095	219179101	5.00 200	10.0	25.0	50.0	100
4,4'-DDD	BNB	Ave	7808701 385758128	15771207	42252419	96276956	186624790	5.00 200	10.0	25.0	50.0	100
Endosulfan II	BNB	Ave	10665424 418409949	21145815	53025483	113540846	211427392	5.00 200	10.0	25.0	50.0	100
4,4'-DDT	BNB	Ave	9041489 427028262	18134093	47134793	106479875	205724290	5.00 200	10.0	25.0	50.0	100

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210206

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2015 12:11 Calibration End Date: 12/11/2015 14:00 Calibration ID: 32044

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Endrin aldehyde	BNB	Ave	8525798 323119559	16327548	40504640	85118758	161476864	5.00 200	10.0	25.0	50.0	100
Endosulfan sulfate	BNB	Ave	9816433 382854414	19038682	47058244	101574571	191011029	5.00 200	10.0	25.0	50.0	100
Methoxychlor	BNB	Ave	5437216 194678817	10298175	24286818	51693975	96979928	5.00 200	10.0	25.0	50.0	100
Endrin ketone	BNB	Ave	10609295 422349277	20917113	51965463	112202400	210999116	5.00 200	10.0	25.0	50.0	100
Tetrachloro-m-xylene	BNB	Ave	9657910 392634603	19152757	48379234	104954990	195742721	5.00 200	10.0	25.0	50.0	100
DCB Decachlorobiphenyl	BNB	Ave	10879822 370259976	20103487	48033690	100102790	182977355	5.00 200	10.0	25.0	50.0	100

Curve Type Legend:
Ave = Average ISTD

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 12:41 Calibration End Date: 12/13/2015 14:08 Calibration ID: 32054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/6	P3121306.D
Level 2	STD 240-210591/7	P3121307.D
Level 3	STD 240-210591/8	P3121308.D
Level 4	STD 240-210591/9	P3121309.D
Level 5	STD 240-210591/10	P3121310.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Toxaphene Peak 1	0.0320	0.0321	0.0315	0.0344	0.0363	Ave		0.0333				6.1		20.0			
Toxaphene Peak 2	0.0317	0.0308	0.0299	0.0334	0.0335	Ave		0.0318				5.0		20.0			
Toxaphene Peak 3	0.0219	0.0214	0.0201	0.0222	0.0230	Ave		0.0217				4.9		20.0			
Toxaphene Peak 4	0.0289	0.0283	0.0279	0.0301	0.0306	Ave		0.0292				4.0		20.0			
Toxaphene Peak 5	0.0180	0.0184	0.0191	0.0212	0.0225	Ave		0.0199				9.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 12:41 Calibration End Date: 12/13/2015 14:08 Calibration ID: 32054

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/6	P3121306.D
Level 2	STD 240-210591/7	P3121307.D
Level 3	STD 240-210591/8	P3121308.D
Level 4	STD 240-210591/9	P3121309.D
Level 5	STD 240-210591/10	P3121310.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Toxaphene Peak 1	BNB	Ave	16537991	40765115	83779016	177863189	468622856	200	500	1000	2000	5000
Toxaphene Peak 2	BNB	Ave	16382097	39113948	79410892	172732252	432095080	200	500	1000	2000	5000
Toxaphene Peak 3	BNB	Ave	11306532	27201926	53539095	114786679	297253985	200	500	1000	2000	5000
Toxaphene Peak 4	BNB	Ave	14925203	35950439	74155898	155955118	394830854	200	500	1000	2000	5000
Toxaphene Peak 5	BNB	Ave	9286086	23416881	50846208	109655360	290849663	200	500	1000	2000	5000

Curve Type Legend:
Ave = Average ISTD

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 12:41 Calibration End Date: 12/13/2015 14:08 Calibration ID: 32055

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/6	P3121306.D
Level 2	STD 240-210591/7	P3121307.D
Level 3	STD 240-210591/8	P3121308.D
Level 4	STD 240-210591/9	P3121309.D
Level 5	STD 240-210591/10	P3121310.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Toxaphene Peak 1	0.0393	0.0389	0.0388	0.0422	0.0438	Ave		0.0406				5.6		20.0			
Toxaphene Peak 2	0.0386	0.0386	0.0379	0.0410	0.0417	Ave		0.0396				4.2		20.0			
Toxaphene Peak 3	0.0266	0.0268	0.0274	0.0298	0.0308	Ave		0.0283				6.7		20.0			
Toxaphene Peak 4	0.0363	0.0362	0.0360	0.0396	0.0412	Ave		0.0379				6.3		20.0			
Toxaphene Peak 5	0.0122	0.0123	0.0127	0.0142	0.0152	Ave		0.0133				9.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 12:41 Calibration End Date: 12/13/2015 14:08 Calibration ID: 32055

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/6	P3121306.D
Level 2	STD 240-210591/7	P3121307.D
Level 3	STD 240-210591/8	P3121308.D
Level 4	STD 240-210591/9	P3121309.D
Level 5	STD 240-210591/10	P3121310.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Toxaphene Peak 1	BNB	Ave	18724540	45363610	94008775	198448950	506803815	200	500	1000	2000	5000
Toxaphene Peak 2	BNB	Ave	18402958	44991085	91878642	192748920	483048212	200	500	1000	2000	5000
Toxaphene Peak 3	BNB	Ave	12665093	31273032	66273429	140079341	356058127	200	500	1000	2000	5000
Toxaphene Peak 4	BNB	Ave	17294766	42262179	87268023	186271533	476819303	200	500	1000	2000	5000
Toxaphene Peak 5	BNB	Ave	5808386	14292305	30653675	66663296	175380119	200	500	1000	2000	5000

Curve Type Legend:
Ave = Average ISTD

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 14:51 Calibration End Date: 12/13/2015 16:18 Calibration ID: 32060

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/12	P3121312.D
Level 2	STD 240-210591/13	P3121313.D
Level 3	STD 240-210591/14	P3121314.D
Level 4	STD 240-210591/15	P3121315.D
Level 5	STD 240-210591/16	P3121316.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlordane (technical) Peak 1	0.0803	0.0851	0.0844	0.0821	0.0797	Ave		0.0823				2.9		20.0			
Chlordane (technical) Peak 2	0.2367	0.2557	0.2495	0.2430	0.2399	Ave		0.2449				3.1		20.0			
Chlordane (technical) Peak 3	0.2177	0.2401	0.2381	0.2313	0.2287	Ave		0.2312				3.8		20.0			
Chlordane (technical) Peak 4	0.0826	0.0838	0.0805	0.0763	0.0768	Ave		0.0800				4.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 14:51 Calibration End Date: 12/13/2015 16:18 Calibration ID: 32060

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/12	P3121312.D
Level 2	STD 240-210591/13	P3121313.D
Level 3	STD 240-210591/14	P3121314.D
Level 4	STD 240-210591/15	P3121315.D
Level 5	STD 240-210591/16	P3121316.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Chlordane (technical) Peak 1	BNB	Ave	3727591	9762372	18897939	37914776	93519255	20.0	50.0	100	200	500
Chlordane (technical) Peak 2	BNB	Ave	10991784	29343014	55879148	112172734	281601222	20.0	50.0	100	200	500
Chlordane (technical) Peak 3	BNB	Ave	10108533	27559055	53334560	106810846	268502850	20.0	50.0	100	200	500
Chlordane (technical) Peak 4	BNB	Ave	3835916	9611661	18034770	35242849	90148160	20.0	50.0	100	200	500

Curve Type Legend:
Ave = Average ISTD

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 14:51 Calibration End Date: 12/13/2015 16:18 Calibration ID: 32061

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/12	P3121312.D
Level 2	STD 240-210591/13	P3121313.D
Level 3	STD 240-210591/14	P3121314.D
Level 4	STD 240-210591/15	P3121315.D
Level 5	STD 240-210591/16	P3121316.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlordane (technical) Peak 1	0.0740	0.0829	0.0811	0.0834	0.0806	Ave		0.0804				4.7		20.0			
Chlordane (technical) Peak 2	0.1646	0.1823	0.1797	0.1864	0.1769	Ave		0.1780				4.6		20.0			
Chlordane (technical) Peak 3	0.2062	0.2255	0.2273	0.2282	0.2149	Ave		0.2204				4.3		20.0			
Chlordane (technical) Peak 4	0.0487	0.0479	0.0555	0.0562	0.0507	Ave		0.0518				7.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210591

SDG No.:

Instrument ID: A2HP3 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/13/2015 14:51 Calibration End Date: 12/13/2015 16:18 Calibration ID: 32061

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-210591/12	P3121312.D
Level 2	STD 240-210591/13	P3121313.D
Level 3	STD 240-210591/14	P3121314.D
Level 4	STD 240-210591/15	P3121315.D
Level 5	STD 240-210591/16	P3121316.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Chlordane (technical) Peak 1	BNB	Ave	3161053	8569692	16638448	35113205	87080145	20.0	50.0	100	200	500
Chlordane (technical) Peak 2	BNB	Ave	7031645	18856314	36835525	78511451	191226789	20.0	50.0	100	200	500
Chlordane (technical) Peak 3	BNB	Ave	8808332	23323102	46598232	96102102	232355658	20.0	50.0	100	200	500
Chlordane (technical) Peak 4	BNB	Ave	2079307	4949322	11372840	23653376	54761654	20.0	50.0	100	200	500

Curve Type Legend:
Ave = Average ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID (2): PEM 240-210206/5 Instrument ID (2): A2HP3

GC Column (2): CLP-1 ID: 0.53(mm) Date Analyzed (2): 12/11/2015 11:49

ANALYTE	RT	RESOLUTION (%)
Methoxychlor		100.0
Tetrachloro-m-xylene	3.97	100.0
alpha-BHC	4.69	100.0
gamma-BHC (Lindane)	5.15	100.0
beta-BHC	5.30	100.0
4,4'-DDE	8.87	100.0
Endrin	9.74	100.0
4,4'-DDD	10.04	100.0
4,4'-DDT	10.53	100.0
Endrin aldehyde	10.90	100.0

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID (1): PEM 240-210206/5 Instrument ID (1): A2HP3

GC Column (1): CLP-2 ID: 0.53(mm) Date Analyzed (1): 12/11/2015 11:49

ANALYTE	RT	RESOLUTION (%)
Methoxychlor		100.0
Tetrachloro-m-xylene	4.56	100.0
alpha-BHC	5.56	100.0
gamma-BHC (Lindane)	6.27	100.0
beta-BHC	6.49	100.0
4,4'-DDE	10.49	100.0
Endrin	11.17	100.0
4,4'-DDD	11.46	100.0
4,4'-DDT	11.94	100.0
Endrin aldehyde	12.07	100.0

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID (2): PEM 240-211762/5 Instrument ID (2): A2HP3

GC Column (2): CLP-1 ID: 0.53(mm) Date Analyzed (2): 12/21/2015 12:58

ANALYTE	RT	RESOLUTION (%)
Methoxychlor		100.0
Tetrachloro-m-xylene	3.92	100.0
alpha-BHC	4.64	100.0
gamma-BHC (Lindane)	5.09	100.0
beta-BHC	5.24	100.0
4,4'-DDE	8.79	100.0
Endrin	9.65	100.0
4,4'-DDD	9.96	100.0
4,4'-DDT	10.45	100.0
Endrin aldehyde	10.82	100.0

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID (1): PEM 240-211762/5 Instrument ID (1): A2HP3

GC Column (1): CLP-2 ID: 0.53(mm) Date Analyzed (1): 12/21/2015 12:58

ANALYTE	RT	RESOLUTION (%)
Methoxychlor		100.0
Tetrachloro-m-xylene	4.51	100.0
alpha-BHC	5.49	100.0
gamma-BHC (Lindane)	6.19	100.0
beta-BHC	6.40	100.0
4,4'-DDE	10.42	100.0
Endrin	11.09	100.0
4,4'-DDD	11.39	100.0
4,4'-DDT	11.87	100.0
Endrin aldehyde	12.00	100.0

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: PEM 240-210206/5 Calibration Date: 12/11/2015 11:49

Instrument ID: A2HP3 Calib Start Date: 11/11/2015 14:14

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/11/2015 16:02

Lab File ID: P3121105.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	9.74	106855736	4.32	15	
Endrin aldehyde	10.90	1450312			
Endrin ketone	12.00	3370768			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	10.53	228752865	0.76	15	
4,4'-DDD	10.04	1497879			
4,4'-DDE	8.87	259388			

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: PEM 240-210206/5 Calibration Date: 12/11/2015 11:49

Instrument ID: A2HP3 Calib Start Date: 11/11/2015 14:14

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 11/11/2015 16:02

Lab File ID: P3121105.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	11.17	101243009	3.99	15	
Endrin aldehyde	12.07	1560919			
Endrin ketone	13.24	2642658			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	11.94	187436815	0.90	15	
4,4'-DDD	11.46	1235252			
4,4'-DDE	10.49	467334			

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: PEM 240-211762/5 Calibration Date: 12/21/2015 12:58

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3122105.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	9.65	109203409	6.56	15	
Endrin aldehyde	10.82	1999319			
Endrin ketone	11.93	5666487			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	10.45	229221734	3.91	15	
4,4'-DDD	9.96	8282145			
4,4'-DDE	8.79	1057523			

FORM VII
PESTICIDES PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: PEM 240-211762/5 Calibration Date: 12/21/2015 12:58

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3122105.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	11.09	104095430	5.17	15	
Endrin aldehyde	12.00	1816407			
Endrin ketone	13.17	3856695			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	11.87	176024407	4.04	15	
4,4'-DDD	11.39	6674785			
4,4'-DDE	10.42	741039			

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210206/12 Calibration Date: 12/11/2015 14:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3121112.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.513	1.700		28.1	25.0	12.4	20.0
gamma-BHC (Lindane)	Ave	1.356	1.466		27.0	25.0	8.2	20.0
beta-BHC	Ave	0.5717	0.6371		27.9	25.0	11.5	20.0
delta-BHC	Ave	1.375	1.528		27.8	25.0	11.1	20.0
Heptachlor	Ave	1.382	1.483		26.8	25.0	7.3	20.0
Aldrin	Ave	1.256	1.418		28.2	25.0	12.9	20.0
Heptachlor epoxide	Ave	1.149	1.279		27.8	25.0	11.3	20.0
gamma-Chlordane	Ave	1.197	1.342		28.0	25.0	12.1	20.0
alpha-Chlordane	Ave	1.181	1.349		28.6	25.0	14.2	20.0
Endosulfan I	Ave	1.078	1.212		28.1	25.0	12.5	20.0
4,4'-DDE	Ave	1.089	1.176		27.0	25.0	8.0	20.0
Dieldrin	Ave	1.170	1.288		27.5	25.0	10.1	20.0
Endrin	Ave	1.059	1.179		27.8	25.0	11.4	20.0
4,4'-DDD	Ave	0.8613	0.9422		27.3	25.0	9.4	20.0
Endosulfan II	Ave	1.025	1.168		28.5	25.0	14.0	20.0
4,4'-DDT	Ave	0.9930	1.029		25.9	25.0	3.6	20.0
Endrin aldehyde	Ave	0.8001	0.9139		28.6	25.0	14.2	20.0
Methoxychlor	Ave	0.4920	0.5298		26.9	25.0	7.7	20.0
Endosulfan sulfate	Ave	0.9333	1.023		27.4	25.0	9.7	20.0
Endrin ketone	Ave	1.035	1.155		27.9	25.0	11.6	20.0
Tetrachloro-m-xylene	Ave	0.8743	0.9799		28.0	25.0	12.1	20.0
DCB Decachlorobiphenyl	Ave	0.9416	0.9694		25.7	25.0	3.0	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210206/12 Calibration Date: 12/11/2015 14:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3121112.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.69	4.66	4.72
gamma-BHC (Lindane)	5.14	5.11	5.17
beta-BHC	5.30	5.27	5.33
delta-BHC	5.56	5.53	5.59
Heptachlor	5.91	5.88	5.94
Aldrin	6.48	6.45	6.51
Heptachlor epoxide	7.96	7.93	7.99
gamma-Chlordane	8.25	8.22	8.28
alpha-Chlordane	8.55	8.52	8.58
Endosulfan I	8.80	8.77	8.83
4,4'-DDE	8.86	8.84	8.90
Dieldrin	9.30	9.27	9.33
Endrin	9.73	9.70	9.76
4,4'-DDD	10.03	10.00	10.06
Endosulfan II	10.15	10.11	10.17
4,4'-DDT	10.52	10.49	10.55
Endrin aldehyde	10.90	10.87	10.93
Methoxychlor	11.42	11.39	11.45
Endosulfan sulfate	11.60	11.57	11.63
Endrin ketone	12.00	11.97	12.03
Tetrachloro-m-xylene	3.96	3.93	3.99
DCB Decachlorobiphenyl	13.57	13.54	13.60

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210206/12 Calibration Date: 12/11/2015 14:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3121112.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.520	1.712		28.2	25.0	12.7	20.0
gamma-BHC (Lindane)	Ave	1.411	1.538		27.2	25.0	9.0	20.0
beta-BHC	Ave	0.5938	0.6634		27.9	25.0	11.7	20.0
delta-BHC	Ave	1.364	1.512		27.7	25.0	10.8	20.0
Heptachlor	Ave	1.424	1.523		26.7	25.0	6.9	20.0
Aldrin	Ave	1.278	1.443		28.2	25.0	13.0	20.0
Heptachlor epoxide	Ave	1.117	1.232		27.6	25.0	10.2	20.0
gamma-Chlordane	Ave	1.165	1.304		28.0	25.0	11.9	20.0
alpha-Chlordane	Ave	1.124	1.284		28.5	25.0	14.2	20.0
Endosulfan I	Ave	1.041	1.163		27.9	25.0	11.6	20.0
4,4'-DDE	Ave	1.059	1.168		27.6	25.0	10.2	20.0
Dieldrin	Ave	1.110	1.222		27.5	25.0	10.0	20.0
Endrin	Ave	0.9793	1.080		27.6	25.0	10.3	20.0
4,4'-DDD	Ave	0.7919	0.8604		27.2	25.0	8.7	20.0
Endosulfan II	Ave	0.9659	1.089		28.2	25.0	12.8	20.0
4,4'-DDT	Ave	0.8881	0.9232		26.0	25.0	3.9	20.0
Endrin aldehyde	Ave	0.7439	0.8399		28.2	25.0	12.9	20.0
Endosulfan sulfate	Ave	0.8725	0.9467		27.1	25.0	8.5	20.0
Methoxychlor	Ave	0.4562	0.4760		26.1	25.0	4.3	20.0
Endrin ketone	Ave	0.9591	1.038		27.0	25.0	8.2	20.0
Tetrachloro-m-xylene	Ave	0.8871	0.9913		27.9	25.0	11.7	20.0
DCB Decachlorobiphenyl	Ave	0.8872	0.9155		25.8	25.0	3.2	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210206/12 Calibration Date: 12/11/2015 14:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3121112.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	5.56	5.53	5.59
gamma-BHC (Lindane)	6.26	6.23	6.29
beta-BHC	6.49	6.46	6.52
delta-BHC	7.20	7.18	7.24
Heptachlor	7.31	7.28	7.34
Aldrin	8.12	8.09	8.15
Heptachlor epoxide	9.43	9.40	9.46
gamma-Chlordane	9.81	9.78	9.84
alpha-Chlordane	10.10	10.06	10.12
Endosulfan I	10.17	10.13	10.19
4,4'-DDE	10.49	10.46	10.52
Dieldrin	10.66	10.63	10.69
Endrin	11.17	11.14	11.20
4,4'-DDD	11.46	11.43	11.49
Endosulfan II	11.53	11.50	11.56
4,4'-DDT	11.94	11.91	11.97
Endrin aldehyde	12.07	12.04	12.10
Endosulfan sulfate	12.49	12.46	12.52
Methoxychlor	12.99	12.96	13.02
Endrin ketone	13.24	13.21	13.27
Tetrachloro-m-xylene	4.56	4.53	4.59
DCB Decachlorobiphenyl	14.95	14.92	14.98

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/6 Calibration Date: 12/21/2015 13:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3122106.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.513	1.588		26.2	25.0	5.0	20.0
gamma-BHC (Lindane)	Ave	1.356	1.417		26.1	25.0	4.5	20.0
beta-BHC	Ave	0.5717	0.5959		26.1	25.0	4.2	20.0
delta-BHC	Ave	1.375	1.426		25.9	25.0	3.7	20.0
Heptachlor	Ave	1.382	1.455		26.3	25.0	5.3	20.0
Aldrin	Ave	1.256	1.326		26.4	25.0	5.6	20.0
Heptachlor epoxide	Ave	1.149	1.227		26.7	25.0	6.8	20.0
gamma-Chlordane	Ave	1.197	1.255		26.2	25.0	4.9	20.0
alpha-Chlordane	Ave	1.181	1.244		26.3	25.0	5.3	20.0
Endosulfan I	Ave	1.078	1.156		26.8	25.0	7.3	20.0
4,4'-DDE	Ave	1.089	1.138		26.1	25.0	4.5	20.0
Dieldrin	Ave	1.170	1.252		26.8	25.0	7.0	20.0
Endrin	Ave	1.059	1.125		26.6	25.0	6.2	20.0
4,4'-DDD	Ave	0.8613	0.9460		27.5	25.0	9.8	20.0
Endosulfan II	Ave	1.025	1.127		27.5	25.0	9.9	20.0
4,4'-DDT	Ave	0.9930	0.8705		21.9	25.0	-12.3	20.0
Endrin aldehyde	Ave	0.8001	0.8713		27.2	25.0	8.9	20.0
Methoxychlor	Ave	0.4920	0.4623		23.5	25.0	-6.0	20.0
Endosulfan sulfate	Ave	0.9333	1.018		27.3	25.0	9.1	20.0
Endrin ketone	Ave	1.035	1.147		27.7	25.0	10.7	20.0
Tetrachloro-m-xylene	Ave	0.8743	0.9347		26.7	25.0	6.9	20.0
DCB Decachlorobiphenyl	Ave	0.9416	1.042		27.7	25.0	10.7	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/6 Calibration Date: 12/21/2015 13:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3122106.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	4.64	4.61	4.67
gamma-BHC (Lindane)	5.09	5.06	5.12
beta-BHC	5.24	5.21	5.27
delta-BHC	5.50	5.47	5.53
Heptachlor	5.85	5.82	5.88
Aldrin	6.40	6.37	6.43
Heptachlor epoxide	7.87	7.84	7.90
gamma-Chlordane	8.16	8.13	8.19
alpha-Chlordane	8.47	8.44	8.50
Endosulfan I	8.72	8.69	8.75
4,4'-DDE	8.79	8.76	8.82
Dieldrin	9.22	9.19	9.25
Endrin	9.65	9.62	9.68
4,4'-DDD	9.96	9.93	9.99
Endosulfan II	10.07	10.04	10.10
4,4'-DDT	10.46	10.43	10.49
Endrin aldehyde	10.83	10.80	10.86
Methoxychlor	11.36	11.33	11.39
Endosulfan sulfate	11.53	11.50	11.56
Endrin ketone	11.93	11.90	11.96
Tetrachloro-m-xylene	3.92	3.89	3.95
DCB Decachlorobiphenyl	13.50	13.47	13.53

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/6 Calibration Date: 12/21/2015 13:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3122106.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	1.520	1.615		26.6	25.0	6.3	20.0
gamma-BHC (Lindane)	Ave	1.411	1.482		26.2	25.0	5.0	20.0
beta-BHC	Ave	0.5938	0.6257		26.3	25.0	5.4	20.0
delta-BHC	Ave	1.364	1.416		25.9	25.0	3.8	20.0
Heptachlor	Ave	1.424	1.499		26.3	25.0	5.2	20.0
Aldrin	Ave	1.278	1.350		26.4	25.0	5.7	20.0
Heptachlor epoxide	Ave	1.117	1.196		26.8	25.0	7.0	20.0
gamma-Chlordane	Ave	1.165	1.229		26.4	25.0	5.5	20.0
alpha-Chlordane	Ave	1.124	1.189		26.4	25.0	5.8	20.0
Endosulfan I	Ave	1.041	1.114		26.7	25.0	7.0	20.0
4,4'-DDE	Ave	1.059	1.119		26.4	25.0	5.6	20.0
Dieldrin	Ave	1.110	1.175		26.5	25.0	5.8	20.0
Endrin	Ave	0.9793	1.028		26.3	25.0	5.0	20.0
4,4'-DDD	Ave	0.7919	0.8647		27.3	25.0	9.2	20.0
Endosulfan II	Ave	0.9659	1.048		27.1	25.0	8.5	20.0
4,4'-DDT	Ave	0.8881	0.7884		22.2	25.0	-11.2	20.0
Endrin aldehyde	Ave	0.7439	0.7847		26.4	25.0	5.5	20.0
Endosulfan sulfate	Ave	0.8725	0.9258		26.5	25.0	6.1	20.0
Methoxychlor	Ave	0.4562	0.4072		22.3	25.0	-10.8	20.0
Endrin ketone	Ave	0.9591	1.022		26.6	25.0	6.5	20.0
Tetrachloro-m-xylene	Ave	0.8871	0.9436		26.6	25.0	6.4	20.0
DCB Decachlorobiphenyl	Ave	0.8872	0.9664		27.2	25.0	8.9	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/6 Calibration Date: 12/21/2015 13:22

Instrument ID: A2HP3 Calib Start Date: 12/11/2015 12:11

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/11/2015 14:00

Lab File ID: P3122106.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	5.49	5.46	5.52
gamma-BHC (Lindane)	6.18	6.15	6.21
beta-BHC	6.40	6.37	6.43
delta-BHC	7.10	7.07	7.13
Heptachlor	7.20	7.17	7.23
Aldrin	8.02	7.99	8.05
Heptachlor epoxide	9.35	9.32	9.38
gamma-Chlordane	9.73	9.70	9.76
alpha-Chlordane	10.02	9.99	10.05
Endosulfan I	10.09	10.06	10.12
4,4'-DDE	10.42	10.39	10.45
Dieldrin	10.59	10.56	10.62
Endrin	11.09	11.06	11.12
4,4'-DDD	11.39	11.36	11.42
Endosulfan II	11.45	11.42	11.48
4,4'-DDT	11.87	11.84	11.90
Endrin aldehyde	12.00	11.97	12.03
Endosulfan sulfate	12.42	12.39	12.45
Methoxychlor	12.92	12.89	12.95
Endrin ketone	13.17	13.14	13.20
Tetrachloro-m-xylene	4.51	4.48	4.54
DCB Decachlorobiphenyl	14.88	14.85	14.91

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/7 Calibration Date: 12/21/2015 13:45

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 12:41

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/13/2015 14:08

Lab File ID: P3122107.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toxaphene Peak 1	Ave	0.0333	0.0339		1020	1000	1.8	20.0
Toxaphene Peak 2	Ave	0.0318	0.0315		989	1000	-1.1	20.0
Toxaphene Peak 3	Ave	0.0217	0.0195		897	1000	-10.3	20.0
Toxaphene Peak 4	Ave	0.0292	0.0277		948	1000	-5.2	20.0
Toxaphene Peak 5	Ave	0.0199	0.0181		911	1000	-8.9	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/7 Calibration Date: 12/21/2015 13:45

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 12:41

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/13/2015 14:08

Lab File ID: P3122107.D

Analyte	RT	RT WINDOW	
		FROM	TO
Toxaphene Peak 1	10.27	10.24	10.30
Toxaphene Peak 2	10.71	10.68	10.74
Toxaphene Peak 3	11.01	10.98	11.04
Toxaphene Peak 4	11.35	11.32	11.38
Toxaphene Peak 5	11.45	11.42	11.48

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/7 Calibration Date: 12/21/2015 13:45

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 12:41

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/13/2015 14:08

Lab File ID: P3122107.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toxaphene Peak 1	Ave	0.0406	0.0405		998	1000	-0.2	20.0
Toxaphene Peak 2	Ave	0.0396	0.0389		984	1000	-1.6	20.0
Toxaphene Peak 3	Ave	0.0283	0.0275		972	1000	-2.8	20.0
Toxaphene Peak 4	Ave	0.0379	0.0358		945	1000	-5.5	20.0
Toxaphene Peak 5	Ave	0.0133	0.0122		918	1000	-8.2	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/7 Calibration Date: 12/21/2015 13:45

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 12:41

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/13/2015 14:08

Lab File ID: P3122107.D

Analyte	RT	RT WINDOW	
		FROM	TO
Toxaphene Peak 1	11.43	11.40	11.46
Toxaphene Peak 2	11.60	11.57	11.63
Toxaphene Peak 3	12.02	11.99	12.05
Toxaphene Peak 4	12.75	12.72	12.78
Toxaphene Peak 5	12.84	12.81	12.87

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/8 Calibration Date: 12/21/2015 14:08

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 14:51

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/13/2015 16:18

Lab File ID: P3122108.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlordane (technical) Peak 1	Ave	0.0823	0.0848		103	100	3.1	20.0
Chlordane (technical) Peak 2	Ave	0.2449	0.2507		102	100	2.3	20.0
Chlordane (technical) Peak 3	Ave	0.2312	0.2350		102	100	1.7	20.0
Chlordane (technical) Peak 4	Ave	0.0800	0.0755		94.4	100	-5.6	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/8 Calibration Date: 12/21/2015 14:08

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 14:51

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/13/2015 16:18

Lab File ID: P3122108.D

Analyte	RT	RT WINDOW	
		FROM	TO
Chlordane (technical) Peak 1	5.71	5.68	5.74
Chlordane (technical) Peak 2	6.65	6.62	6.68
Chlordane (technical) Peak 3	8.16	8.13	8.19
Chlordane (technical) Peak 4	8.46	8.43	8.49

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/8 Calibration Date: 12/21/2015 14:08

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 14:51

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/13/2015 16:18

Lab File ID: P3122108.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlordane (technical) Peak 1	Ave	0.0804	0.0829		103	100	3.1	20.0
Chlordane (technical) Peak 2	Ave	0.1780	0.1905		107	100	7.0	20.0
Chlordane (technical) Peak 3	Ave	0.2204	0.2284		104	100	3.6	20.0
Chlordane (technical) Peak 4	Ave	0.0518	0.0550		106	100	6.2	20.0

FORM VII
PESTICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211762/8 Calibration Date: 12/21/2015 14:08

Instrument ID: A2HP3 Calib Start Date: 12/13/2015 14:51

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/13/2015 16:18

Lab File ID: P3122108.D

Analyte	RT	RT WINDOW	
		FROM	TO
Chlordane (technical) Peak 1	6.83	6.80	6.86
Chlordane (technical) Peak 2	8.54	8.51	8.57
Chlordane (technical) Peak 3	9.73	9.70	9.76
Chlordane (technical) Peak 4	10.01	9.98	10.04

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211299/3-A

Matrix: Solid | Lab File ID: P3122117.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 17:37

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
57-74-9	Chlordane (technical)	0.00014	U	0.0050	0.00014
72-20-8	Endrin	0.000013	U	0.00050	0.000013
76-44-8	Heptachlor	0.000014	U	0.00050	0.000014
1024-57-3	Heptachlor epoxide	0.000015	U	0.00050	0.000015
58-89-9	gamma-BHC (Lindane)	0.000013	U	0.00050	0.000013
72-43-5	Methoxychlor	0.000013	U	0.0010	0.000013
8001-35-2	Toxaphene	0.00020	U	0.020	0.00020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	78		10-141
877-09-8	Tetrachloro-m-xylene	73		34-121

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211299/3-A

Matrix: Solid | Lab File ID: P3122117.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 17:37

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	75		10-141
877-09-8	Tetrachloro-m-xylene	76		34-121

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211299/4-A

Matrix: Solid | Lab File ID: P3122118.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 18:00

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
76-44-8	Heptachlor	0.000293	J	0.00050	0.000014
58-89-9	gamma-BHC (Lindane)	0.000277	J	0.00050	0.000013

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	78		10-141
877-09-8	Tetrachloro-m-xylene	74		34-121

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211299/4-A

Matrix: Solid | Lab File ID: P3122118.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 18:00

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-20-8	Endrin	0.000341	J	0.00050	0.000013
1024-57-3	Heptachlor epoxide	0.000334	J	0.00050	0.000015
72-43-5	Methoxychlor	0.000641	J	0.0010	0.000013

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	79		10-141
877-09-8	Tetrachloro-m-xylene	79		34-121

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS | Lab Sample ID: 240-59150-1 MS

Matrix: Solid (TCLP) | Lab File ID: P3122116.D

Analysis Method: 8081B | Date Collected: 12/15/2015 14:00

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 17:13

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
57-74-9	Chlordane (technical)	0.00014	U	0.0050	0.00014
72-20-8	Endrin	0.000395	J	0.00050	0.000013
76-44-8	Heptachlor	0.000380	J	0.00050	0.000014
1024-57-3	Heptachlor epoxide	0.000389	J	0.00050	0.000015
72-43-5	Methoxychlor	0.000726	J	0.0010	0.000013
8001-35-2	Toxaphene	0.00020	U	0.020	0.00020

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	101		10-141
877-09-8	Tetrachloro-m-xylene	99		34-121

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS | Lab Sample ID: 240-59150-1 MS

Matrix: Solid (TCLP) | Lab File ID: P3122116.D

Analysis Method: 8081B | Date Collected: 12/15/2015 14:00

Extraction Method: 3520C | Date Extracted: 12/17/2015 10:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/21/2015 17:13

Con. Extract Vol.: 3(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211762 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
58-89-9	gamma-BHC (Lindane)	0.000228	J	0.00050	0.000013

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	86		10-141
877-09-8	Tetrachloro-m-xylene	90		34-121

PESTICIDES ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Start Date: 12/11/2015 11:49

Analysis Batch Number: 210206 End Date: 12/11/2015 14:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 240-210206/5		12/11/2015 11:49	1	P3121105.D	CLP-1 0.53(mm)
PEM 240-210206/5		12/11/2015 11:49	1	P3121105.D	CLP-2 0.53(mm)
STD 240-210206/6 IC		12/11/2015 12:11	1	P3121106.D	CLP-1 0.53(mm)
STD 240-210206/6 IC		12/11/2015 12:11	1	P3121106.D	CLP-2 0.53(mm)
STD 240-210206/7 IC		12/11/2015 12:34	1	P3121107.D	CLP-1 0.53(mm)
STD 240-210206/7 IC		12/11/2015 12:34	1	P3121107.D	CLP-2 0.53(mm)
STD 240-210206/8 ICIS		12/11/2015 12:55	1	P3121108.D	CLP-1 0.53(mm)
STD 240-210206/8 ICIS		12/11/2015 12:55	1	P3121108.D	CLP-2 0.53(mm)
STD 240-210206/9 IC		12/11/2015 13:17	1	P3121109.D	CLP-1 0.53(mm)
STD 240-210206/9 IC		12/11/2015 13:17	1	P3121109.D	CLP-2 0.53(mm)
STD 240-210206/10 IC		12/11/2015 13:39	1	P3121110.D	CLP-1 0.53(mm)
STD 240-210206/10 IC		12/11/2015 13:39	1	P3121110.D	CLP-2 0.53(mm)
STD 240-210206/11 IC		12/11/2015 14:00	1	P3121111.D	CLP-1 0.53(mm)
STD 240-210206/11 IC		12/11/2015 14:00	1	P3121111.D	CLP-2 0.53(mm)
ICV 240-210206/12		12/11/2015 14:22	1	P3121112.D	CLP-1 0.53(mm)
ICV 240-210206/12		12/11/2015 14:22	1	P3121112.D	CLP-2 0.53(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Start Date: 12/13/2015 12:20

Analysis Batch Number: 210591 End Date: 12/13/2015 16:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 240-210591/5		12/13/2015 12:20	1		CLP-1 0.53(mm)
PEM 240-210591/5		12/13/2015 12:20	1		CLP-2 0.53(mm)
STD 240-210591/6 IC		12/13/2015 12:41	1	P3121306.D	CLP-1 0.53(mm)
STD 240-210591/6 IC		12/13/2015 12:41	1	P3121306.D	CLP-2 0.53(mm)
STD 240-210591/7 IC		12/13/2015 13:03	1	P3121307.D	CLP-1 0.53(mm)
STD 240-210591/7 IC		12/13/2015 13:03	1	P3121307.D	CLP-2 0.53(mm)
STD 240-210591/8 IC		12/13/2015 13:25	1	P3121308.D	CLP-1 0.53(mm)
STD 240-210591/8 IC		12/13/2015 13:25	1	P3121308.D	CLP-2 0.53(mm)
STD 240-210591/9 IC		12/13/2015 13:46	1	P3121309.D	CLP-1 0.53(mm)
STD 240-210591/9 IC		12/13/2015 13:46	1	P3121309.D	CLP-2 0.53(mm)
STD 240-210591/10 IC		12/13/2015 14:08	1	P3121310.D	CLP-1 0.53(mm)
STD 240-210591/10 IC		12/13/2015 14:08	1	P3121310.D	CLP-2 0.53(mm)
ICV 240-210591/11		12/13/2015 14:30	1		CLP-1 0.53(mm)
ICV 240-210591/11		12/13/2015 14:30	1		CLP-2 0.53(mm)
STD 240-210591/12 IC		12/13/2015 14:51	1	P3121312.D	CLP-1 0.53(mm)
STD 240-210591/12 IC		12/13/2015 14:51	1	P3121312.D	CLP-2 0.53(mm)
STD 240-210591/13 IC		12/13/2015 15:13	1	P3121313.D	CLP-1 0.53(mm)
STD 240-210591/13 IC		12/13/2015 15:13	1	P3121313.D	CLP-2 0.53(mm)
STD 240-210591/14 IC		12/13/2015 15:35	1	P3121314.D	CLP-1 0.53(mm)
STD 240-210591/14 IC		12/13/2015 15:35	1	P3121314.D	CLP-2 0.53(mm)
STD 240-210591/15 IC		12/13/2015 15:56	1	P3121315.D	CLP-1 0.53(mm)
STD 240-210591/15 IC		12/13/2015 15:56	1	P3121315.D	CLP-2 0.53(mm)
STD 240-210591/16 IC		12/13/2015 16:18	1	P3121316.D	CLP-1 0.53(mm)
STD 240-210591/16 IC		12/13/2015 16:18	1	P3121316.D	CLP-2 0.53(mm)
ICV 240-210591/17		12/13/2015 16:40	1		CLP-1 0.53(mm)
ICV 240-210591/17		12/13/2015 16:40	1		CLP-2 0.53(mm)

PESTICIDES ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP3 Start Date: 12/21/2015 12:58

Analysis Batch Number: 211762 End Date: 12/21/2015 18:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 240-211762/5		12/21/2015 12:58	1	P3122105.D	CLP-1 0.53(mm)
PEM 240-211762/5		12/21/2015 12:58	1	P3122105.D	CLP-2 0.53(mm)
CCV 240-211762/6 CCVIS		12/21/2015 13:22	1	P3122106.D	CLP-1 0.53(mm)
CCV 240-211762/6 CCVIS		12/21/2015 13:22	1	P3122106.D	CLP-2 0.53(mm)
CCV 240-211762/7		12/21/2015 13:45	1	P3122107.D	CLP-1 0.53(mm)
CCV 240-211762/7		12/21/2015 13:45	1	P3122107.D	CLP-2 0.53(mm)
CCV 240-211762/8		12/21/2015 14:08	1	P3122108.D	CLP-1 0.53(mm)
CCV 240-211762/8		12/21/2015 14:08	1	P3122108.D	CLP-2 0.53(mm)
240-59150-1	D-SD-WC-1	12/21/2015 16:50	1	P3122115.D	CLP-1 0.53(mm)
240-59150-1	D-SD-WC-1	12/21/2015 16:50	1	P3122115.D	CLP-2 0.53(mm)
240-59150-1 MS	D-SD-WC-1 MS	12/21/2015 17:13	1	P3122116.D	CLP-1 0.53(mm)
240-59150-1 MS	D-SD-WC-1 MS	12/21/2015 17:13	1	P3122116.D	CLP-2 0.53(mm)
MB 240-211299/3-A		12/21/2015 17:37	1	P3122117.D	CLP-1 0.53(mm)
MB 240-211299/3-A		12/21/2015 17:37	1	P3122117.D	CLP-2 0.53(mm)
LCS 240-211299/4-A		12/21/2015 18:00	1	P3122118.D	CLP-1 0.53(mm)
LCS 240-211299/4-A		12/21/2015 18:00	1	P3122118.D	CLP-2 0.53(mm)

PESTICIDES BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211244 Batch Start Date: 12/16/15 18:35 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 12/17/15 10:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXPESTBUFF1 00046	EXpH(0-14) 00011	EXTCLPFILTERS 00029	EXTCLPHCLW 00050	AnalysisComment	
240-59150-1	D-SD-WC-1	1311, 3520C, 8081B	P	1 mL	1 mL	1	1 mL	MS for BNA, Pest, Herb; MS/MSD for Metals	

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211299 Batch Start Date: 12/17/15 12:20 Batch Analyst: Ross, Justin

Batch Method: 3520C Batch End Date: 12/18/15 06:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	ex2/.2SURRW 00063	exPESTTCLPspk 00001	
240-59150-1	D-SD-WC-1	3520C, 8081B	P	250 mL	3 mL	5	1 mL		
240-59150-1 MS	D-SD-WC-1	3520C, 8081B	P	250 mL	3 mL	5	1 mL	1 mL	
MB 240-211299/3-A		3520C, 8081B		250 mL	3 mL	5	1 mL		
LCS 240-211299/4-A		3520C, 8081B		250 mL	3 mL	5	1 mL	1 mL	

Batch Notes	
Exchange Solvent Lot #	2147437
Prep Solvent Lot #	2333900

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low

GC Column (2): CLP-1 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX2 #	DCB2 #
D-SD-WC-1	240-59150-1	82	129
	MB 240-211247/22-A	82	91
	LCS 240-211247/23-A	74	81

	QC LIMITS
TCX = Tetrachloro-m-xylene	13-134
DCB = DCB Decachlorobiphenyl	10-155

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1200010.D

Lab ID: LCS 240-211247/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	239	72	51-120	
Aroclor-1260	333	241	72	48-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: MB 240-211247/22-A

Matrix: Solid Date Extracted: 12/17/2015 08:24

Lab File ID:(1) Lab File ID:(2) P1200009.D

Date Analyzed:(1) Date Analyzed:(2) 12/20/2015 15:29

Instrument ID:(1) Instrument ID:(2) A2HP12

GC Column:(1) ID: GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-211247/23-A		12/20/2015 15:47
D-SD-WC-1	240-59150-1		12/20/2015 16:42

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD05 240-207007/31 Date Analyzed: 11/17/2015 04:23

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1200066.D Heated Purge: (Y/N) N

Calibration ID: 31555

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		188112954	2.68				
UPPER LIMIT		376225908	3.18				
LOWER LIMIT		94056477	2.18				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-207007/39		184850376	2.69				
CCV 240-211637/3 CCVIS		199698316	2.70				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211637/3 Date Analyzed: 12/20/2015 13:41

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1200003.D Heated Purge: (Y/N) N

Calibration ID: 31555

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		199698316	2.70				
UPPER LIMIT		399396632	3.20				
LOWER LIMIT		99849158	2.20				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-211637/4		192153835	2.70				
CCV 240-211637/5		209346296	2.70				
CCV 240-211637/6		203703666	2.69				
CCV 240-211637/7		197176912	2.70				
MB 240-211247/22-A		219738556	2.70				
LCS 240-211247/23-A		216677431	2.70				
240-59150-1	D-SD-WC-1	211186813	2.72				

BNB = 1-Bromo-2-nitrobenzene
BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-211247/23-A

Instrument ID (1): Instrument ID (2): A2HP12

Date Analyzed (1): Date Analyzed (2): 12/20/2015 15:47

GC Column (1): ID: GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	4.62	4.59	4.65	242	239	
		2	5.12	5.09	5.15	242		
		3	5.74	5.72	5.78	244		
		4	5.92	5.89	5.95	243		
		5	6.45	6.42	6.48	225		
Aroclor-1260	1	1	7.95	7.92	7.98	239	241	
		2	8.29	8.26	8.32	241		
		3	8.61	8.58	8.64	227		
		4	9.40	9.37	9.43	259		
		5	9.72	9.69	9.75	238		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid | Lab File ID: P1200013.D

Analysis Method: 8082A | Date Collected: 12/15/2015 14:00

Extraction Method: 3540C | Date Extracted: 12/17/2015 08:24

Sample wt/vol: 29.70(g) | Date Analyzed: 12/20/2015 16:42

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 24.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211637 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	16	U	44	16
11104-28-2	Aroclor-1221	21	U	44	21
11141-16-5	Aroclor-1232	27	U	44	27
53469-21-9	Aroclor-1242	15	U	44	15
12672-29-6	Aroclor-1248	11	U	44	11
11097-69-1	Aroclor-1254	19	U	44	19
11096-82-5	Aroclor-1260	15	J	44	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	82		13-134
2051-24-3	DCB Decachlorobiphenyl	129		10-155

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2015 20:14 Calibration End Date: 11/16/2015 21:45 Calibration ID: 31527

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/4	P1200039.D
Level 2	STD01 240-207007/5	P1200040.D
Level 3	STD02 240-207007/6	P1200041.D
Level 4	STD05 240-207007/7	P1200042.D
Level 5	STD1 240-207007/8	P1200043.D
Level 6	STD2 240-207007/9	P1200044.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0146 0.0120	0.0146	0.0137	0.0137	0.0123	Lin1	0.0002	0.0122							0.9980		0.9900
PCB-1232 Peak 2	0.0104 0.0088	0.0106	0.0101	0.0100	0.0090	Lin1	0.0001	0.0089							0.9980		0.9900
PCB-1232 Peak 3	0.0214 0.0206	0.0218	0.0204	0.0219	0.0205	Lin1	0.0001	0.0207							0.9990		0.9900
PCB-1232 Peak 4	0.0088 0.0084	0.0090	0.0081	0.0093	0.0085	Lin1	0	0.0085							0.9980		0.9900
PCB-1232 Peak 5	0.0088 0.0076	0.0092	0.0087	0.0086	0.0078	Lin1	0.0001	0.0078							0.9980		0.9900
PCB-1262 Peak 1	0.0288 0.0238	0.0249	0.0236	0.0241	0.0228	Lin1	0.0002	0.0233							0.9990		0.9900
PCB-1262 Peak 2	0.0420 0.0453	0.0443	0.0426	0.0462	0.0441	Lin1	0	0.0452							1.0000		0.9900
PCB-1262 Peak 3	0.0380 0.0415	0.0404	0.0397	0.0426	0.0405	Lin1	0	0.0415							1.0000		0.9900
PCB-1262 Peak 4	0.0853 0.0976	0.0928	0.0961	0.0994	0.0962	Lin1	-0.001	0.0979							1.0000		0.9900
PCB-1262 Peak 5	0.0364 0.0385	0.0386	0.0374	0.0395	0.0372	Lin1	0	0.0383							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2015 20:14 Calibration End Date: 11/16/2015 21:45 Calibration ID: 31527

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/4	P1200039.D
Level 2	STD01 240-207007/5	P1200040.D
Level 3	STD02 240-207007/6	P1200041.D
Level 4	STD05 240-207007/7	P1200042.D
Level 5	STD1 240-207007/8	P1200043.D
Level 6	STD2 240-207007/9	P1200044.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	2864462 94613461	5743911	10579052	25148552	48682811	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	2042318 69008204	4176797	7799621	18338381	35520928	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	4204092 162234139	8567857	15765426	40096819	80981509	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	1732949 65818756	3551392	6289163	17045553	33804666	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	1725581 59962732	3622594	6723266	15858414	31021460	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	5662298 186973877	9773527	18252707	44264730	89983608	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	8249286 356026718	17431705	32928458	84853483	174547806	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	7469803 326504754	15875631	30684939	78118840	160322518	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	16781995 766924713	36487355	74250353	182460886	380317708	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	7158889 302670598	15182112	28944443	72530686	147149653	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2015 22:03 Calibration End Date: 11/16/2015 23:33 Calibration ID: 31533

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/10	P1200045.D
Level 2	STD01 240-207007/11	P1200046.D
Level 3	STD02 240-207007/12	P1200047.D
Level 4	STD05 240-207007/13	P1200048.D
Level 5	STD1 240-207007/14	P1200049.D
Level 6	STD2 240-207007/15	P1200050.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0115 0.0082	0.0100	0.0094	0.0091	0.0087	Lin1	0.0002	0.0083							0.9990		0.9900
PCB-1242 Peak 2	0.0201 0.0153	0.0180	0.0172	0.0169	0.0161	Lin1	0.0003	0.0155							0.9990		0.9900
PCB-1242 Peak 3	0.0408 0.0378	0.0334	0.0373	0.0380	0.0380	Lin1	0	0.0379							0.9990		0.9900
PCB-1242 Peak 4	0.0176 0.0154	0.0131	0.0162	0.0160	0.0157	Lin1	0	0.0155							0.9980		0.9900
PCB-1242 Peak 5	0.0196 0.0154	0.0173	0.0163	0.0163	0.0157	Lin1	0.0002	0.0155							1.0000		0.9900
PCB-1268 Peak 1	0.1160 0.1140	0.1051	0.1050	0.1121	0.1102	Lin1	0	0.1126							0.9990		0.9900
PCB-1268 Peak 2	0.1129 0.1102	0.1035	0.1031	0.1082	0.1086	Lin1	0	0.1094							1.0000		0.9900
PCB-1268 Peak 3	0.0941 0.0941	0.0865	0.0873	0.0935	0.0918	Lin1	0	0.0934							1.0000		0.9900
PCB-1268 Peak 4	0.0427 0.0386	0.0375	0.0368	0.0384	0.0379	Lin1	0.0001	0.0382							1.0000		0.9900
PCB-1268 Peak 5	0.3010 0.3253	0.2825	0.2850	0.3104	0.3105	Lin1	-0.003	0.3204							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2015 22:03 Calibration End Date: 11/16/2015 23:33 Calibration ID: 31533

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/10	P1200045.D
Level 2	STD01 240-207007/11	P1200046.D
Level 3	STD02 240-207007/12	P1200047.D
Level 4	STD05 240-207007/13	P1200048.D
Level 5	STD1 240-207007/14	P1200049.D
Level 6	STD2 240-207007/15	P1200050.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin1	2149767 64172683	3972268	7542438	18026385	33712614	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	BNB	Lin1	3777832 120095985	7167048	13831308	33547847	62739379	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	BNB	Lin1	7649911 296721464	13315192	29900733	75211737	147999390	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	BNB	Lin1	3299090 120600215	5223145	12995644	31796203	60982553	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	BNB	Lin1	3672196 121118126	6903841	13110974	32386776	61129587	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	BNB	Lin1	21759307 894333238	41863019	84230109	222130676	428635453	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	BNB	Lin1	21178393 864175846	41209432	82708339	214470756	422311987	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	BNB	Lin1	17646266 738380844	34461725	70030810	185306823	357127789	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	BNB	Lin1	8003779 302725873	14951207	29550936	76139152	147585310	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	BNB	Lin1	56470647 2551765384	112539547	228706125	615081152	1208047688	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2015 23:51 Calibration End Date: 11/17/2015 01:22 Calibration ID: 31539

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/16	P1200051.D
Level 2	STD01 240-207007/17	P1200052.D
Level 3	STD02 240-207007/18	P1200053.D
Level 4	STD05 240-207007/19	P1200054.D
Level 5	STD1 240-207007/20	P1200055.D
Level 6	STD2 240-207007/21	P1200056.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0111 0.0082	0.0099	0.0099	0.0090	0.0084	Lin1	0.0002	0.0082							0.9990		0.9900
PCB-1248 Peak 2	0.0277 0.0242	0.0256	0.0251	0.0243	0.0239	Lin1	0.0002	0.0240							1.0000		0.9900
PCB-1248 Peak 3	0.0240 0.0225	0.0232	0.0233	0.0226	0.0219	Lin1	0.0001	0.0223							1.0000		0.9900
PCB-1248 Peak 4	0.0199 0.0193	0.0194	0.0192	0.0192	0.0190	Lin1	0	0.0192							1.0000		0.9900
PCB-1248 Peak 5	0.0138 0.0128	0.0122	0.0128	0.0125	0.0116	Lin1	0	0.0124							0.9980		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/16/2015 23:51 Calibration End Date: 11/17/2015 01:22 Calibration ID: 31539

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/16	P1200051.D
Level 2	STD01 240-207007/17	P1200052.D
Level 3	STD02 240-207007/18	P1200053.D
Level 4	STD05 240-207007/19	P1200054.D
Level 5	STD1 240-207007/20	P1200055.D
Level 6	STD2 240-207007/21	P1200056.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Lin1	2214671 65344382	3893329	7710225	17465613	33070601	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	BNB	Lin1	5540374 193008938	10066768	19570159	46979815	94056087	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	BNB	Lin1	4803789 179213673	9149673	18179130	43818711	86223823	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	BNB	Lin1	3975067 153520953	7642679	14994793	37207246	74584605	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	BNB	Lin1	2764694 102029173	4797959	10009264	24248210	45732697	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2015 01:40 Calibration End Date: 11/17/2015 03:10 Calibration ID: 31549

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/22	P1200057.D
Level 2	STD01 240-207007/23	P1200058.D
Level 3	STD02 240-207007/24	P1200059.D
Level 4	STD05 240-207007/25	P1200060.D
Level 5	STD1 240-207007/26	P1200061.D
Level 6	STD2 240-207007/27	P1200062.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0083 0.0057	0.0074	0.0067	0.0065	0.0061	Lin1	0.0002	0.0058							0.9980		0.9900
PCB-1221 Peak 2	0.0055 0.0037	0.0049	0.0045	0.0042	0.0039	Lin1	0.0001	0.0037							0.9980		0.9900
PCB-1221 Peak 3	0.0208 0.0145	0.0183	0.0167	0.0164	0.0154	Lin1	0.0004	0.0147							0.9980		0.9900
PCB-1254 Peak 1	0.0259 0.0202	0.0228	0.0210	0.0212	0.0203	Lin1	0.0003	0.0201							1.0000		0.9900
PCB-1254 Peak 2	0.0354 0.0290	0.0313	0.0287	0.0298	0.0292	Lin1	0.0003	0.0289							1.0000		0.9900
PCB-1254 Peak 3	0.0466 0.0419	0.0442	0.0413	0.0427	0.0391	Lin1	0.0003	0.0410							0.9990		0.9900
PCB-1254 Peak 4	0.0442 0.0360	0.0392	0.0345	0.0358	0.0355	Lin1	0.0003	0.0354							0.9990		0.9900
PCB-1254 Peak 5	0.0544 0.0459	0.0486	0.0448	0.0465	0.0453	Lin1	0.0003	0.0454							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2015 01:40 Calibration End Date: 11/17/2015 03:10 Calibration ID: 31549

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/22	P1200057.D
Level 2	STD01 240-207007/23	P1200058.D
Level 3	STD02 240-207007/24	P1200059.D
Level 4	STD05 240-207007/25	P1200060.D
Level 5	STD1 240-207007/26	P1200061.D
Level 6	STD2 240-207007/27	P1200062.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin1	1617753 43159048	2834146	5288305	12630620	23444359	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	BNB	Lin1	1073929 27877416	1853226	3515548	8239497	15092745	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	BNB	Lin1	4061658 109234720	6958986	13214576	31899214	59455965	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	BNB	Lin1	5070982 152082598	8694593	16601983	41262994	78538732	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	BNB	Lin1	6915782 218988362	11916252	22685227	57976400	113180990	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	BNB	Lin1	9122282 316127715	16841606	32606706	82955431	151535520	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	BNB	Lin1	8646084 271574308	14939001	27264214	69542078	137323388	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	BNB	Lin1	10643906 346633557	18530884	35338412	90448562	175425464	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2015 03:29 Calibration End Date: 11/17/2015 04:59 Calibration ID: 31555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/28	P1200063.D
Level 2	STD01 240-207007/29	P1200064.D
Level 3	STD02 240-207007/30	P1200065.D
Level 4	STD05 240-207007/31	P1200066.D
Level 5	STD1 240-207007/32	P1200067.D
Level 6	STD2 240-207007/33	P1200068.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0130 0.0104	0.0132	0.0125	0.0117	0.0109	Lin1	0.0002	0.0106							0.9980		0.9900
PCB-1016 Peak 2	0.0226 0.0190	0.0238	0.0222	0.0210	0.0197	Lin1	0.0003	0.0193							0.9980		0.9900
PCB-1016 Peak 3	0.0471 0.0469	0.0503	0.0465	0.0479	0.0469	Lin1	0.0001	0.0469							1.0000		0.9900
PCB-1016 Peak 4	0.0212 0.0189	0.0222	0.0202	0.0199	0.0193	Lin1	0.0002	0.0190							1.0000		0.9900
PCB-1016 Peak 5	0.0220 0.0187	0.0228	0.0210	0.0199	0.0191	Lin1	0.0003	0.0188							0.9990		0.9900
PCB-1260 Peak 1	0.0330 0.0301	0.0338	0.0324	0.0309	0.0302	Lin1	0.0003	0.0300							1.0000		0.9900
PCB-1260 Peak 2	0.0622 0.0585	0.0618	0.0622	0.0606	0.0586	Lin1	0.0003	0.0586							1.0000		0.9900
PCB-1260 Peak 3	0.0650 0.0628	0.0634	0.0652	0.0643	0.0626	Lin1	0.0002	0.0629							1.0000		0.9900
PCB-1260 Peak 4	0.0661 0.0714	0.0711	0.0771	0.0773	0.0731	Lin1	0	0.0729							0.9990		0.9900
PCB-1260 Peak 5	0.0374 0.0384	0.0399	0.0382	0.0386	0.0385	Lin1	0	0.0384							1.0000		0.9900
Tetrachloro-m-xylene	0.7048 0.6608	0.7003	0.7144	0.6986	0.6822	Lin1	0.0002	0.6699							0.9990		0.9900
DCB Decachlorobiphenyl	0.7699 0.6896	0.7629	0.7446	0.7316	0.6953	Lin1	0.0003	0.6927							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 207007

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2015 03:29 Calibration End Date: 11/17/2015 04:59 Calibration ID: 31555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-207007/28	P1200063.D
Level 2	STD01 240-207007/29	P1200064.D
Level 3	STD02 240-207007/30	P1200065.D
Level 4	STD05 240-207007/31	P1200066.D
Level 5	STD1 240-207007/32	P1200067.D
Level 6	STD2 240-207007/33	P1200068.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin1	2707871 80765612	4820722	9085846	22006625	42447741	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	BNB	Lin1	4700873 147609677	8734684	16183493	39469767	76715703	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	BNB	Lin1	9792259 364184674	18438138	33886380	90045825	182657834	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	BNB	Lin1	4396897 147122332	8128551	14710049	37512861	75171974	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	BNB	Lin1	4563462 145010499	8352402	15341259	37426880	74524891	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	BNB	Lin1	6849336 233433821	12383500	23597918	58080604	117631104	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	BNB	Lin1	12922388 454390240	22631342	45372536	113933482	228581266	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	BNB	Lin1	13513426 488067042	23245320	47522931	120987145	244049421	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	BNB	Lin1	13737456 554191846	26050869	56208655	145378951	285103725	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	BNB	Lin1	7764692 298012472	14617316	27852633	72613053	149980149	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	BNB	Lin1	7322625 256611202	12827811	26051804	65705303	132973208	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	BNB	Lin1	7998062 267771950	13974803	27151934	68816182	135510483	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-207007/39 Calibration Date: 11/17/2015 06:48

Instrument ID: A2HP12 Calib Start Date: 11/17/2015 03:29

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 04:59

Lab File ID: P1200074.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0109		1.01	1.00	1.2	20.0
PCB-1016 Peak 2	Lin1		0.0209		1.07	1.00	6.9	20.0
PCB-1016 Peak 3	Lin1		0.0504		1.07	1.00	7.2	20.0
PCB-1016 Peak 4	Lin1		0.0205		1.07	1.00	6.9	20.0
PCB-1016 Peak 5	Lin1		0.0196		1.03	1.00	3.0	20.0
PCB-1260 Peak 1	Lin1		0.0302		0.995	1.00	-0.5	20.0
PCB-1260 Peak 2	Lin1		0.0570		0.967	1.00	-3.3	20.0
PCB-1260 Peak 3	Lin1		0.0535		0.848	1.00	-15.2	20.0
PCB-1260 Peak 4	Lin1		0.0824		1.13	1.00	13.1	20.0
PCB-1260 Peak 5	Lin1		0.0405		1.05	1.00	5.3	20.0
Tetrachloro-m-xylene	Lin1		0.6836		0.0507	0.0500	1.5	20.0
DCB Decachlorobiphenyl	Lin1		0.6921		0.0495	0.0500	-1.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-207007/39 Calibration Date: 11/17/2015 06:48

Instrument ID: A2HP12 Calib Start Date: 11/17/2015 03:29

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 04:59

Lab File ID: P1200074.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.61	4.58	4.64
PCB-1016 Peak 2	5.11	5.08	5.14
PCB-1016 Peak 3	5.74	5.71	5.77
PCB-1016 Peak 4	5.91	5.88	5.94
PCB-1016 Peak 5	6.45	6.42	6.48
PCB-1260 Peak 1	7.95	7.92	7.98
PCB-1260 Peak 2	8.29	8.26	8.32
PCB-1260 Peak 3	8.61	8.58	8.64
PCB-1260 Peak 4	9.40	9.37	9.43
PCB-1260 Peak 5	9.72	9.69	9.75
Tetrachloro-m-xylene	4.05	4.02	4.08
DCB Decachlorobiphenyl	10.93	10.90	10.96

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/3 Calibration Date: 12/20/2015 13:41

Instrument ID: A2HP12 Calib Start Date: 11/17/2015 03:29

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 04:59

Lab File ID: P1200003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0115		0.525	0.500	5.0	20.0
PCB-1016 Peak 2	Lin1		0.0206		0.519	0.500	3.7	20.0
PCB-1016 Peak 3	Lin1		0.0462		0.490	0.500	-2.1	20.0
PCB-1016 Peak 4	Lin1		0.0195		0.501	0.500	0.1	20.0
PCB-1016 Peak 5	Lin1		0.0195		0.503	0.500	0.6	20.0
PCB-1260 Peak 1	Lin1		0.0285		0.466	0.500	-6.9	20.0
PCB-1260 Peak 2	Lin1		0.0530		0.446	0.500	-10.7	20.0
PCB-1260 Peak 3	Lin1		0.0556		0.440	0.500	-12.1	20.0
PCB-1260 Peak 4	Lin1		0.0619		0.425	0.500	-15.0	20.0
PCB-1260 Peak 5	Lin1		0.0331		0.430	0.500	-14.0	20.0
Tetrachloro-m-xylene	Lin1		0.6987		0.0258	0.0250	3.2	20.0
DCB Decachlorobiphenyl	Lin1		0.5904		0.0209	0.0250	-16.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/3 Calibration Date: 12/20/2015 13:41

Instrument ID: A2HP12 Calib Start Date: 11/17/2015 03:29

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 04:59

Lab File ID: P1200003.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.62	4.59	4.65
PCB-1016 Peak 2	5.12	5.09	5.15
PCB-1016 Peak 3	5.75	5.72	5.78
PCB-1016 Peak 4	5.92	5.89	5.95
PCB-1016 Peak 5	6.45	6.42	6.48
PCB-1260 Peak 1	7.95	7.92	7.98
PCB-1260 Peak 2	8.29	8.26	8.32
PCB-1260 Peak 3	8.61	8.58	8.64
PCB-1260 Peak 4	9.40	9.37	9.43
PCB-1260 Peak 5	9.72	9.69	9.75
Tetrachloro-m-xylene	4.06	4.03	4.09
DCB Decachlorobiphenyl	10.93	10.90	10.96

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/4 Calibration Date: 12/20/2015 13:59

Instrument ID: A2HP12 Calib Start Date: 11/16/2015 20:14

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/16/2015 21:45

Lab File ID: P1200004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0140		0.558	0.500	11.6	20.0
PCB-1232 Peak 2	Lin1		0.0099		0.541	0.500	8.2	20.0
PCB-1232 Peak 3	Lin1		0.0215		0.516	0.500	3.2	20.0
PCB-1232 Peak 4	Lin1		0.0093		0.542	0.500	8.5	20.0
PCB-1232 Peak 5	Lin1		0.0087		0.545	0.500	9.1	20.0
PCB-1262 Peak 1	Lin1		0.0229		0.483	0.500	-3.4	20.0
PCB-1262 Peak 2	Lin1		0.0385		0.429	0.500	-14.1	20.0
PCB-1262 Peak 3	Lin1		0.0355		0.432	0.500	-13.6	20.0
PCB-1262 Peak 4	Lin1		0.0841		0.435	0.500	-13.0	20.0
PCB-1262 Peak 5	Lin1		0.0339		0.443	0.500	-11.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/4 Calibration Date: 12/20/2015 13:59

Instrument ID: A2HP12 Calib Start Date: 11/16/2015 20:14

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/16/2015 21:45

Lab File ID: P1200004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	4.62	4.59	4.65
PCB-1232 Peak 2	5.12	5.09	5.15
PCB-1232 Peak 3	5.75	5.72	5.78
PCB-1232 Peak 4	5.92	5.89	5.95
PCB-1232 Peak 5	6.45	6.42	6.48
PCB-1262 Peak 1	7.95	7.92	7.98
PCB-1262 Peak 2	8.75	8.72	8.78
PCB-1262 Peak 3	9.03	9.00	9.06
PCB-1262 Peak 4	9.40	9.37	9.43
PCB-1262 Peak 5	9.76	9.73	9.79

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/5 Calibration Date: 12/20/2015 14:17

Instrument ID: A2HP12 Calib Start Date: 11/16/2015 22:03

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/16/2015 23:33

Lab File ID: P1200005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0093		0.536	0.500	7.3	20.0
PCB-1242 Peak 2	Lin1		0.0166		0.516	0.500	3.2	20.0
PCB-1242 Peak 3	Lin1		0.0368		0.487	0.500	-2.7	20.0
PCB-1242 Peak 4	Lin1		0.0157		0.505	0.500	0.9	20.0
PCB-1242 Peak 5	Lin1		0.0161		0.507	0.500	1.4	20.0
PCB-1268 Peak 1	Lin1		0.0969		0.433	0.500	-13.3	20.0
PCB-1268 Peak 2	Lin1		0.0936		0.430	0.500	-14.0	20.0
PCB-1268 Peak 3	Lin1		0.0810		0.437	0.500	-12.6	20.0
PCB-1268 Peak 4	Lin1		0.0337		0.438	0.500	-12.3	20.0
PCB-1268 Peak 5	Lin1		0.2728		0.434	0.500	-13.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/5 Calibration Date: 12/20/2015 14:17

Instrument ID: A2HP12 Calib Start Date: 11/16/2015 22:03

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/16/2015 23:33

Lab File ID: P1200005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	4.62	4.59	4.65
PCB-1242 Peak 2	5.12	5.09	5.15
PCB-1242 Peak 3	5.75	5.72	5.78
PCB-1242 Peak 4	5.92	5.89	5.95
PCB-1242 Peak 5	6.45	6.42	6.48
PCB-1268 Peak 1	9.76	9.73	9.79
PCB-1268 Peak 2	9.81	9.78	9.84
PCB-1268 Peak 3	10.03	10.00	10.06
PCB-1268 Peak 4	10.44	10.41	10.47
PCB-1268 Peak 5	10.74	10.71	10.77

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/6 Calibration Date: 12/20/2015 14:35

Instrument ID: A2HP12 Calib Start Date: 11/16/2015 23:51

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 01:22

Lab File ID: P1200006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0091		0.531	0.500	6.1	20.0
PCB-1248 Peak 2	Lin1		0.0233		0.478	0.500	-4.4	20.0
PCB-1248 Peak 3	Lin1		0.0220		0.488	0.500	-2.4	20.0
PCB-1248 Peak 4	Lin1		0.0182		0.475	0.500	-5.1	20.0
PCB-1248 Peak 5	Lin1		0.0116		0.464	0.500	-7.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/6 Calibration Date: 12/20/2015 14:35

Instrument ID: A2HP12 Calib Start Date: 11/16/2015 23:51

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 01:22

Lab File ID: P1200006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.12	5.09	5.15
PCB-1248 Peak 2	5.74	5.71	5.77
PCB-1248 Peak 3	7.01	6.98	7.04
PCB-1248 Peak 4	7.25	7.22	7.28
PCB-1248 Peak 5	7.73	7.70	7.76

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/7 Calibration Date: 12/20/2015 14:53

Instrument ID: A2HP12 Calib Start Date: 11/17/2015 01:40

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 03:10

Lab File ID: P1200007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0063		0.519	0.500	3.8	20.0
PCB-1221 Peak 2	Lin1		0.0041		0.512	0.500	2.4	20.0
PCB-1221 Peak 3	Lin1		0.0164		0.534	0.500	6.8	20.0
PCB-1254 Peak 1	Lin1		0.0206		0.499	0.500	-0.2	20.0
PCB-1254 Peak 2	Lin1		0.0290		0.493	0.500	-1.4	20.0
PCB-1254 Peak 3	Lin1		0.0421		0.508	0.500	1.6	20.0
PCB-1254 Peak 4	Lin1		0.0351		0.486	0.500	-2.7	20.0
PCB-1254 Peak 5	Lin1		0.0460		0.499	0.500	-0.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211637/7 Calibration Date: 12/20/2015 14:53

Instrument ID: A2HP12 Calib Start Date: 11/17/2015 01:40

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 11/17/2015 03:10

Lab File ID: P1200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	4.35	4.32	4.38
PCB-1221 Peak 2	4.56	4.53	4.59
PCB-1221 Peak 3	4.61	4.58	4.64
PCB-1254 Peak 1	6.93	6.90	6.96
PCB-1254 Peak 2	7.26	7.23	7.29
PCB-1254 Peak 3	7.73	7.70	7.76
PCB-1254 Peak 4	8.07	8.04	8.10
PCB-1254 Peak 5	8.61	8.58	8.64

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211247/22-A

Matrix: Solid | Lab File ID: P1200009.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 12/17/2015 08:24

Sample wt/vol: 30(g) | Date Analyzed: 12/20/2015 15:29

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211637 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	12	U	33	12
11104-28-2	Aroclor-1221	16	U	33	16
11141-16-5	Aroclor-1232	20	U	33	20
53469-21-9	Aroclor-1242	11	U	33	11
12672-29-6	Aroclor-1248	8.0	U	33	8.0
11097-69-1	Aroclor-1254	14	U	33	14
11096-82-5	Aroclor-1260	9.0	U	33	9.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	82		13-134
2051-24-3	DCB Decachlorobiphenyl	91		10-155

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211247/23-A

Matrix: Solid | Lab File ID: P1200010.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 12/17/2015 08:24

Sample wt/vol: 30(g) | Date Analyzed: 12/20/2015 15:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211637 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	239		33	12
11096-82-5	Aroclor-1260	241		33	9.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	74		13-134
2051-24-3	DCB Decachlorobiphenyl	81		10-155

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP12 Start Date: 11/16/2015 20:14

Analysis Batch Number: 207007 End Date: 11/17/2015 07:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-207007/4 IC		11/16/2015 20:14	1	P1200039.D	CLP-1 0.53(mm)
STD005 240-207007/4 IC		11/16/2015 20:14	1		CLP-2 0.53(mm)
STD01 240-207007/5 IC		11/16/2015 20:32	1	P1200040.D	CLP-1 0.53(mm)
STD01 240-207007/5 IC		11/16/2015 20:32	1		CLP-2 0.53(mm)
STD02 240-207007/6 IC		11/16/2015 20:50	1	P1200041.D	CLP-1 0.53(mm)
STD02 240-207007/6 IC		11/16/2015 20:50	1		CLP-2 0.53(mm)
STD05 240-207007/7 IC		11/16/2015 21:09	1	P1200042.D	CLP-1 0.53(mm)
STD05 240-207007/7 IC		11/16/2015 21:09	1		CLP-2 0.53(mm)
STD1 240-207007/8 IC		11/16/2015 21:27	1	P1200043.D	CLP-1 0.53(mm)
STD1 240-207007/8 IC		11/16/2015 21:27	1		CLP-2 0.53(mm)
STD2 240-207007/9 IC		11/16/2015 21:45	1	P1200044.D	CLP-1 0.53(mm)
STD2 240-207007/9 IC		11/16/2015 21:45	1		CLP-2 0.53(mm)
STD005 240-207007/10 IC		11/16/2015 22:03	1	P1200045.D	CLP-1 0.53(mm)
STD005 240-207007/10 IC		11/16/2015 22:03	1		CLP-2 0.53(mm)
STD01 240-207007/11 IC		11/16/2015 22:21	1	P1200046.D	CLP-1 0.53(mm)
STD01 240-207007/11 IC		11/16/2015 22:21	1		CLP-2 0.53(mm)
STD02 240-207007/12 IC		11/16/2015 22:39	1	P1200047.D	CLP-1 0.53(mm)
STD02 240-207007/12 IC		11/16/2015 22:39	1		CLP-2 0.53(mm)
STD05 240-207007/13 IC		11/16/2015 22:57	1	P1200048.D	CLP-1 0.53(mm)
STD05 240-207007/13 IC		11/16/2015 22:57	1		CLP-2 0.53(mm)
STD1 240-207007/14 IC		11/16/2015 23:15	1	P1200049.D	CLP-1 0.53(mm)
STD1 240-207007/14 IC		11/16/2015 23:15	1		CLP-2 0.53(mm)
STD2 240-207007/15 IC		11/16/2015 23:33	1	P1200050.D	CLP-1 0.53(mm)
STD2 240-207007/15 IC		11/16/2015 23:33	1		CLP-2 0.53(mm)
STD005 240-207007/16 IC		11/16/2015 23:51	1	P1200051.D	CLP-1 0.53(mm)
STD005 240-207007/16 IC		11/16/2015 23:51	1		CLP-2 0.53(mm)
STD01 240-207007/17 IC		11/17/2015 00:09	1	P1200052.D	CLP-1 0.53(mm)
STD01 240-207007/17 IC		11/17/2015 00:09	1		CLP-2 0.53(mm)
STD02 240-207007/18 IC		11/17/2015 00:28	1	P1200053.D	CLP-1 0.53(mm)
STD02 240-207007/18 IC		11/17/2015 00:28	1		CLP-2 0.53(mm)
STD05 240-207007/19 IC		11/17/2015 00:46	1	P1200054.D	CLP-1 0.53(mm)
STD05 240-207007/19 IC		11/17/2015 00:46	1		CLP-2 0.53(mm)
STD1 240-207007/20 IC		11/17/2015 01:04	1	P1200055.D	CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP12 Start Date: 11/16/2015 20:14

Analysis Batch Number: 207007 End Date: 11/17/2015 07:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-207007/20 IC		11/17/2015 01:04	1		CLP-2 0.53(mm)
STD2 240-207007/21 IC		11/17/2015 01:22	1	P1200056.D	CLP-1 0.53(mm)
STD2 240-207007/21 IC		11/17/2015 01:22	1		CLP-2 0.53(mm)
STD005 240-207007/22 IC		11/17/2015 01:40	1	P1200057.D	CLP-1 0.53(mm)
STD005 240-207007/22 IC		11/17/2015 01:40	1		CLP-2 0.53(mm)
STD01 240-207007/23 IC		11/17/2015 01:58	1	P1200058.D	CLP-1 0.53(mm)
STD01 240-207007/23 IC		11/17/2015 01:58	1		CLP-2 0.53(mm)
STD02 240-207007/24 IC		11/17/2015 02:16	1	P1200059.D	CLP-1 0.53(mm)
STD02 240-207007/24 IC		11/17/2015 02:16	1		CLP-2 0.53(mm)
STD05 240-207007/25 IC		11/17/2015 02:34	1	P1200060.D	CLP-1 0.53(mm)
STD05 240-207007/25 IC		11/17/2015 02:34	1		CLP-2 0.53(mm)
STD1 240-207007/26 IC		11/17/2015 02:52	1	P1200061.D	CLP-1 0.53(mm)
STD1 240-207007/26 IC		11/17/2015 02:52	1		CLP-2 0.53(mm)
STD2 240-207007/27 IC		11/17/2015 03:10	1	P1200062.D	CLP-1 0.53(mm)
STD2 240-207007/27 IC		11/17/2015 03:10	1		CLP-2 0.53(mm)
STD005 240-207007/28 IC		11/17/2015 03:29	1	P1200063.D	CLP-1 0.53(mm)
STD005 240-207007/28 IC		11/17/2015 03:29	1		CLP-2 0.53(mm)
STD01 240-207007/29 IC		11/17/2015 03:47	1	P1200064.D	CLP-1 0.53(mm)
STD01 240-207007/29 IC		11/17/2015 03:47	1		CLP-2 0.53(mm)
STD02 240-207007/30 IC		11/17/2015 04:05	1	P1200065.D	CLP-1 0.53(mm)
STD02 240-207007/30 IC		11/17/2015 04:05	1		CLP-2 0.53(mm)
STD05 240-207007/31 ICIS		11/17/2015 04:23	1	P1200066.D	CLP-1 0.53(mm)
STD05 240-207007/31 ICIS		11/17/2015 04:23	1		CLP-2 0.53(mm)
STD1 240-207007/32 IC		11/17/2015 04:41	1	P1200067.D	CLP-1 0.53(mm)
STD1 240-207007/32 IC		11/17/2015 04:41	1		CLP-2 0.53(mm)
STD2 240-207007/33 IC		11/17/2015 04:59	1	P1200068.D	CLP-1 0.53(mm)
STD2 240-207007/33 IC		11/17/2015 04:59	1		CLP-2 0.53(mm)
ICV 240-207007/34		11/17/2015 05:17	1		CLP-1 0.53(mm)
ICV 240-207007/34		11/17/2015 05:17	1		CLP-2 0.53(mm)
ICV 240-207007/35		11/17/2015 05:35	1		CLP-1 0.53(mm)
ICV 240-207007/35		11/17/2015 05:35	1		CLP-2 0.53(mm)
ICV 240-207007/36		11/17/2015 05:53	1		CLP-1 0.53(mm)
ICV 240-207007/36		11/17/2015 05:53	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP12 Start Date: 11/16/2015 20:14

Analysis Batch Number: 207007 End Date: 11/17/2015 07:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-207007/37		11/17/2015 06:12	1		CLP-1 0.53(mm)
ICV 240-207007/37		11/17/2015 06:12	1		CLP-2 0.53(mm)
ICV 240-207007/38		11/17/2015 06:30	1		CLP-1 0.53(mm)
ICV 240-207007/38		11/17/2015 06:30	1		CLP-2 0.53(mm)
ICV 240-207007/39		11/17/2015 06:48	1	P1200074.D	CLP-1 0.53(mm)
ICV 240-207007/39		11/17/2015 06:48	1		CLP-2 0.53(mm)
ICV 240-207007/40		11/17/2015 07:06	1		CLP-1 0.53(mm)
ICV 240-207007/40		11/17/2015 07:06	1		CLP-2 0.53(mm)
ICV 240-207007/41		11/17/2015 07:24	1		CLP-1 0.53(mm)
ICV 240-207007/41		11/17/2015 07:24	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP12 Start Date: 12/20/2015 13:41

Analysis Batch Number: 211637 End Date: 12/20/2015 16:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-211637/3 CCVIS		12/20/2015 13:41	1	P1200003.D	CLP-1 0.53(mm)
CCV 240-211637/3 CCVIS		12/20/2015 13:41	1		CLP-2 0.53(mm)
CCV 240-211637/4		12/20/2015 13:59	1	P1200004.D	CLP-1 0.53(mm)
CCV 240-211637/4		12/20/2015 13:59	1		CLP-2 0.53(mm)
CCV 240-211637/5		12/20/2015 14:17	1	P1200005.D	CLP-1 0.53(mm)
CCV 240-211637/5		12/20/2015 14:17	1		CLP-2 0.53(mm)
CCV 240-211637/6		12/20/2015 14:35	1	P1200006.D	CLP-1 0.53(mm)
CCV 240-211637/6		12/20/2015 14:35	1		CLP-2 0.53(mm)
CCV 240-211637/7		12/20/2015 14:53	1	P1200007.D	CLP-1 0.53(mm)
CCV 240-211637/7		12/20/2015 14:53	1		CLP-2 0.53(mm)
MB 240-211247/22-A		12/20/2015 15:29	1	P1200009.D	CLP-1 0.53(mm)
ZZZZZ		12/20/2015 15:29	1		CLP-2 0.53(mm)
LCS 240-211247/23-A		12/20/2015 15:47	1	P1200010.D	CLP-1 0.53(mm)
ZZZZZ		12/20/2015 15:47	1		CLP-2 0.53(mm)
240-59150-1	D-SD-WC-1	12/20/2015 16:42	1	P1200013.D	CLP-1 0.53(mm)
ZZZZZ		12/20/2015 16:42	1		CLP-2 0.53(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211247 Batch Start Date: 12/17/15 10:40 Batch Analyst: Newsome, Yvonne D

Batch Method: 3540C Batch End Date: 12/18/15 02:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ex10PPMSPK 00019	ex2/.2SURRW 00063		
240-59150-1	D-SD-WC-1	3540C, 8082A	T	29.70 g	10 mL		1 mL		
MB 240-211247/22-A		3540C, 8082A		30 g	10 mL		1 mL		
LCS 240-211247/23-A		3540C, 8082A		30 g	10 mL	1 mL	1 mL		

Batch Notes	
Acid used for Clean Up Reagent	2226508
Balance ID	1339912
Na2SO4 Lot Number	2204511
Prep Solvent Lot #	2327864

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8151A

Herbicides (GC) by Method 8151A

FORM II
HERBICIDES SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	DCPA1 #	DCPA2 #
D-SD-WC-1	240-59150-1	64	64
	MB 240-211300/3-A	66	58
	LCS 240-211300/4-A	79	90
D-SD-WC-1 MS	240-59150-1 MS	66	53 X

	QC LIMITS
DCPA = 2,4-Dichlorophenylacetic acid	56-120

Column to be used to flag recovery values

FORM II 8151A

FORM III
HERBICIDES LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P1121815.D

Lab ID: LCS 240-211300/4-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2,4-D	0.0200	0.0160	80	50-120	
Silvex (2,4,5-TP)	0.00500	0.00397	79	45-129	

Column to be used to flag recovery and RPD values

FORM III 8151A

FORM III
HERBICIDES MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: P1121817.D

Lab ID: 240-59150-1 MS Client ID: D-SD-WC-1 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2,4-D	0.0200	0.0019 U	0.0128	64	44-124	
Silvex (2,4,5-TP)	0.00500	0.00027 U	0.00280	56	35-135	

Column to be used to flag recovery and RPD values

FORM III 8151A

FORM IV
HERBICIDES METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: MB 240-211300/3-A

Matrix: Water Date Extracted: 12/17/2015 10:42

Lab File ID:(1) P1121814.D Lab File ID:(2) P1121814.D

Date Analyzed:(1) 12/18/2015 20:48 Date Analyzed:(2) 12/18/2015 20:48

Instrument ID:(1) A2HP1 Instrument ID:(2) A2HP1

GC Column:(1) CLP-1 ID: 0.53(mm) GC Column:(2) CLP-2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-211300/4-A	12/18/2015 21:14	12/18/2015 21:14
D-SD-WC-1	240-59150-1	12/18/2015 21:40	12/18/2015 21:40
D-SD-WC-1 MS	240-59150-1 MS	12/18/2015 22:05	12/18/2015 22:05

FORM VIII
HERBICIDES ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD3 240-210910/9 Date Analyzed: 12/15/2015 16:53

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1121509.D Heated Purge: (Y/N) N

Calibration ID: 32102

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				DCPA RT #		
INITIAL CALIBRATION SURROGATE				7.03		
UPPER LIMIT				7.05		
LOWER LIMIT				7.01		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-210910/9 ICRT		12/15/2015 16:53	P1121509.D	7.03		
ICV 240-210910/14		12/15/2015 19:02	P1121514.D	7.03		

DCPA = 2,4-Dichlorophenylacetic acid

DCPA RT Limit = ± 0.02 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8151A

FORM VIII
HERBICIDES ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: STD3 240-210910/9 Date Analyzed: 12/15/2015 16:53

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1121509.D Heated Purge: (Y/N) N

Calibration ID: 32103

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				DCPA RT #		
INITIAL CALIBRATION SURROGATE				7.66		
UPPER LIMIT				7.68		
LOWER LIMIT				7.64		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-210910/9 ICRT		12/15/2015 16:53	P1121509.D	7.66		
ICV 240-210910/14		12/15/2015 19:02	P1121514.D	7.66		

DCPA = 2,4-Dichlorophenylacetic acid

DCPA RT Limit = ± 0.02 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8151A

FORM VIII
HERBICIDES ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211535/7 Date Analyzed: 12/18/2015 17:48

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1121807.D Heated Purge: (Y/N) N

Calibration ID: 32102

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				DCPA RT #		
CONTINUING CALIBRATION SURROGATE				7.03		
UPPER LIMIT				7.05		
LOWER LIMIT				7.01		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-211535/7 CCVRT		12/18/2015 17:48	P1121807.D	7.03		
CCV 240-211535/13		12/18/2015 20:23	P1121813.D	7.03		
MB 240-211300/3-A		12/18/2015 20:48	P1121814.D	7.03		
LCS 240-211300/4-A		12/18/2015 21:14	P1121815.D	7.03		
240-59150-1	D-SD-WC-1	12/18/2015 21:40	P1121816.D	7.03		
240-59150-1 MS	D-SD-WC-1 MS	12/18/2015 22:05	P1121817.D	7.03		
CCV 240-211535/18		12/18/2015 22:31	P1121818.D	7.03		

DCPA = 2,4-Dichlorophenylacetic acid

DCPA RT Limit = ± 0.02 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8151A

FORM VIII
HERBICIDES ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Sample No.: CCV 240-211535/7 Date Analyzed: 12/18/2015 17:48

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1121807.D Heated Purge: (Y/N) N

Calibration ID: 32103

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				DCPA		
				RT #		
CONTINUING CALIBRATION SURROGATE				7.66		
UPPER LIMIT				7.68		
LOWER LIMIT				7.64		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-211535/7 CCVRT		12/18/2015 17:48	P1121807.D	7.66		
CCV 240-211535/13		12/18/2015 20:23	P1121813.D	7.66		
MB 240-211300/3-A		12/18/2015 20:48	P1121814.D	7.67		
LCS 240-211300/4-A		12/18/2015 21:14	P1121815.D	7.68		
240-59150-1	D-SD-WC-1	12/18/2015 21:40	P1121816.D	7.68		
240-59150-1 MS	D-SD-WC-1 MS	12/18/2015 22:05	P1121817.D	7.67		
CCV 240-211535/18		12/18/2015 22:31	P1121818.D	7.66		

DCPA = 2,4-Dichlorophenylacetic acid

DCPA RT Limit = ± 0.02 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8151A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS Lab Sample ID: 240-59150-1 MS

Instrument ID (1): A2HP1 Instrument ID (2): A2HP1

Date Analyzed (1): 12/18/2015 22:05 Date Analyzed (2): 12/18/2015 22:05

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4-D	1		8.25	8.23	8.27	0.0128		49.2
	2		8.98	8.96	9.00	0.00774		
Silvex (2,4,5-TP)	1		9.13	9.11	9.15	0.00280		16.8
	2		9.93	9.91	9.95	0.00237		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-211300/4-A

Instrument ID (1): A2HP1 Instrument ID (2): A2HP1

Date Analyzed (1): 12/18/2015 21:14 Date Analyzed (2): 12/18/2015 21:14

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4-D	1		8.24	8.23	8.27	0.0160		54.3
	2		8.98	8.96	9.00	0.00918		
Silvex (2,4,5-TP)	1		9.13	9.11	9.15	0.00397		24.0
	2		9.93	9.91	9.95	0.00312		

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid (TCLP) | Lab File ID: P1121816.D

Analysis Method: 8151A | Date Collected: 12/15/2015 14:00

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 21:40

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
94-75-7	2,4-D	0.0019	U	0.0040	0.0019
93-72-1	Silvex (2,4,5-TP)	0.00027	U	0.0010	0.00027

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	64		56-120

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 | Lab Sample ID: 240-59150-1

Matrix: Solid (TCLP) | Lab File ID: P1121816.D

Analysis Method: 8151A | Date Collected: 12/15/2015 14:00

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 21:40

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	64		56-120

FORM VI
HERBICIDES BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210910

SDG No.:

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2015 16:02 Calibration End Date: 12/15/2015 18:36 Calibration ID: 32102

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210910/7	P1121507.D
Level 2	STD2 240-210910/8	P1121508.D
Level 3	STD3 240-210910/9	P1121509.D
Level 4	STD4 240-210910/10	P1121510.D
Level 5	STD5 240-210910/11	P1121511.D
Level 6	STD6 240-210910/12	P1121512.D
Level 7	STD7 240-210910/13	P1121513.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Dalapon	1.315	1.315	1.315	1.314	1.315	1.314	1.314				1.295 - 1.335	1.315
Dicamba	7.196	7.195	7.195	7.194	7.194	7.193	7.193				7.175 - 7.215	7.194
MCPP	7.476	7.475	7.475	7.474	7.474	+++++	+++++				7.455 - 7.495	7.475
MCPA	7.637	7.637	7.637	7.635	7.636	+++++	+++++				7.617 - 7.657	7.636
Dichlorprop	8.010	8.010	8.009	8.008	8.007	8.006	8.006				7.989 - 8.029	8.008
2,4-D	8.247	8.246	8.244	8.244	8.243	8.242	8.242				8.224 - 8.264	8.244
Silvex (2,4,5-TP)	9.127	9.125	9.125	9.124	9.123	9.123	9.122				9.105 - 9.145	9.124
2,4,5-T	9.441	9.439	9.437	9.437	9.436	9.434	9.434				9.417 - 9.457	9.437
2,4-DB	10.072	10.069	10.067	10.066	10.065	10.064	10.063				10.047 - 10.087	10.067
Dinoseb	11.284	11.283	11.283	11.284	11.282	11.282	11.282				11.253 - 11.313	11.283
2,4-Dichlorophenylacetic acid	7.030	7.029	7.028	7.026	7.026	7.026	7.026				7.008 - 7.048	7.027

FORM VI
HERBICIDES BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210910

SDG No.:

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2015 16:02 Calibration End Date: 12/15/2015 18:36 Calibration ID: 32102

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210910/7	P1121507.D
Level 2	STD2 240-210910/8	P1121508.D
Level 3	STD3 240-210910/9	P1121509.D
Level 4	STD4 240-210910/10	P1121510.D
Level 5	STD5 240-210910/11	P1121511.D
Level 6	STD6 240-210910/12	P1121512.D
Level 7	STD7 240-210910/13	P1121513.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Dalapon	195183200 160760920	184522650 153050260	176099125 142495860	164068150	Ave		168025738				10.9		20.0			
Dicamba	265769700 243756360	257612850 233518470	259709200 222327715	248425488	Ave		247302826				6.2		20.0			
MCPP	936084 659568	874728 +++++	822326 +++++	703171	Ave		799175.300				14.5		20.0			
MCPA	1551318 882713	1342335 +++++	1147707 +++++	948131	Lin1	1691088.54	840450.886							0.9900		0.9900
Dichlorprop	57990800 51462935	56134475 49320318	54864588 48078618	52790581	Ave		52948902.0				6.8		20.0			
2,4-D	61165850 59336630	60098075 58274580	61302875 57041355	60981938	Ave		59743043.2				2.7		20.0			
Silvex (2,4,5-TP)	254591000 268316340	252479200 269402470	264733900 264561035	273289525	Ave		263910496				2.9		20.0			
2,4,5-T	557336600 608285120	568961100 626862560	610408000 600650575	629830800	Ave		600333536				4.6		20.0			
2,4-DB	22829950 23212800	22150550 24109815	23991725 23378195	23767381	Ave		23348630.9				3.0		20.0			
Dinoseb	130968667 123439633	121483333 125385783	127108250 116687592	124467083	Ave		124220049				3.6		20.0			
2,4-Dichlorophenylacetic acid	70409700 59697635	67063250 56079378	65152613 54085096	61502706	Ave		61998625.4				9.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HERBICIDES BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210910

SDG No.:

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2015 16:02 Calibration End Date: 12/15/2015 18:36 Calibration ID: 32102

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210910/7	P1121507.D
Level 2	STD2 240-210910/8	P1121508.D
Level 3	STD3 240-210910/9	P1121509.D
Level 4	STD4 240-210910/10	P1121510.D
Level 5	STD5 240-210910/11	P1121511.D
Level 6	STD6 240-210910/12	P1121512.D
Level 7	STD7 240-210910/13	P1121513.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dalapon	Ave	1951832 30610052	3690453 56998344	7043965	13125452	16076092	0.0100 0.200	0.0200 0.400	0.0400	0.0800	0.100
Dicamba	Ave	2657697 46703694	5152257 88931086	10388368	19874039	24375636	0.0100 0.200	0.0200 0.400	0.0400	0.0800	0.100
MCPP	Ave	1872168 +++++	3498910 +++++	6578608	11250732	13191365	2.00 +++++	4.00 +++++	8.00	16.0	20.0
MCPA	Lin1	3102636 +++++	5369341 +++++	9181658	15170101	17654251	2.00 +++++	4.00 +++++	8.00	16.0	20.0
Dichlorprop	Ave	1159816 19728127	2245379 38462894	4389167	8446493	10292587	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200
2,4-D	Ave	1223317 23309832	2403923 45633084	4904230	9757110	11867326	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200
Silvex (2,4,5-TP)	Ave	1272955 26940247	2524792 52912207	5294678	10931581	13415817	0.00500 0.100	0.0100 0.200	0.0200	0.0400	0.0500
2,4,5-T	Ave	2786683 62686256	5689611 120130115	12208160	25193232	30414256	0.00500 0.100	0.0100 0.200	0.0200	0.0400	0.0500
2,4-DB	Ave	456599 9643926	886022 18702556	1919338	3802781	4642560	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200
Dinoseb	Ave	392906 7523147	728900 14002511	1525299	2987210	3703189	0.00300 0.0600	0.00600 0.120	0.0120	0.0240	0.0300
2,4-Dichlorophenylacetic acid	Ave	1408194 22431751	2682530 43268077	5212209	9840433	11939527	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc

FORM VI
HERBICIDES BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210910

SDG No.:

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2015 16:02 Calibration End Date: 12/15/2015 18:36 Calibration ID: 32103

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210910/7	P1121507.D
Level 2	STD2 240-210910/8	P1121508.D
Level 3	STD3 240-210910/9	P1121509.D
Level 4	STD4 240-210910/10	P1121510.D
Level 5	STD5 240-210910/11	P1121511.D
Level 6	STD6 240-210910/12	P1121512.D
Level 7	STD7 240-210910/13	P1121513.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Dalapon	1.424	1.424	1.424	1.424	1.424	1.424	1.424				1.404 - 1.444	1.424
Dicamba	7.831	7.830	7.830	7.830	7.829	7.829	7.830				7.810 - 7.850	7.830
MCPP	8.016	8.015	8.015	8.014	8.013	+++++	+++++				7.995 - 8.035	8.015
MCPA	8.267	8.266	8.266	8.265	8.266	+++++	+++++				8.246 - 8.286	8.266
Dichlorprop	8.629	8.629	8.628	8.628	8.628	8.627	8.627				8.608 - 8.648	8.628
2,4-D	8.983	8.984	8.982	8.982	8.981	8.981	8.981				8.962 - 9.002	8.982
Silvex (2,4,5-TP)	9.924	9.924	9.923	9.923	9.923	9.922	9.922				9.903 - 9.943	9.923
2,4,5-T	10.399	10.400	10.399	10.399	10.398	10.396	10.397				10.379 - 10.419	10.398
2,4-DB	11.050	11.050	11.049	11.048	11.046	11.046	11.047				11.029 - 11.069	11.048
Dinoseb	11.431	11.431	11.431	11.431	11.430	11.429	11.430				11.401 - 11.461	11.430
2,4-Dichlorophenylacetic acid	7.664	7.663	7.662	7.662	7.662	7.661	7.662				7.642 - 7.682	7.662

FORM VI
HERBICIDES BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210910

SDG No.:

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2015 16:02 Calibration End Date: 12/15/2015 18:36 Calibration ID: 32103

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210910/7	P1121507.D
Level 2	STD2 240-210910/8	P1121508.D
Level 3	STD3 240-210910/9	P1121509.D
Level 4	STD4 240-210910/10	P1121510.D
Level 5	STD5 240-210910/11	P1121511.D
Level 6	STD6 240-210910/12	P1121512.D
Level 7	STD7 240-210910/13	P1121513.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Dalapon	1140706500 1138300800	1125131100 1153411785	1156183825 1156140095	1139428213	Ave		1144186045				1.0		20.0			
Dicamba	1899656600 1958274830	1953683100 1941032010	1971576375 1904410548	1980140275	Ave		1944110534				1.6		20.0			
MCPP	5022936 4025446	5238258 +++++	4972842 +++++	4295958	Ave		4711087.91				11.1		20.0			
MCPA	7806036 4956864	7475299 +++++	6510922 +++++	5387584	Ave		6427341.02				19.4		20.0			
Dichlorprop	398346350 354212575	389443050 332990995	389059625 321081105	362651525	Ave		363969318				8.2		20.0			
2,4-D	438466800 421984725	436615075 398873945	450830800 389138231	432401056	Ave		424044376				5.3		20.0			
Silvex (2,4,5-TP)	2020901800 2238963340	2035443900 2256220010	2179672150 2226612125	2273689725	Ave		2175929007				4.8		20.0			
2,4,5-T	4470483600 5226444200	4575800400 5351814820	5075327550 5272732970	5276672725	Ave		5035610895				7.2		20.0			
2,4-DB	177665050 187435645	177728250 188182653	191882488 180848670	192500338	Ave		185177585				3.4		20.0			
Dinoseb	911496333 1002009633	879246500 1035589183	964967250 976178625	995007500	Ave		966356432				5.6		20.0			
2,4-Dichlorophenylacetic acid	472940000 397242275	464272100 374036693	445721338 364668050	407542400	Ave		418060408				10.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HERBICIDES BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-59150-1 Analy Batch No.: 210910

SDG No.:

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2015 16:02 Calibration End Date: 12/15/2015 18:36 Calibration ID: 32103

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-210910/7	P1121507.D
Level 2	STD2 240-210910/8	P1121508.D
Level 3	STD3 240-210910/9	P1121509.D
Level 4	STD4 240-210910/10	P1121510.D
Level 5	STD5 240-210910/11	P1121511.D
Level 6	STD6 240-210910/12	P1121512.D
Level 7	STD7 240-210910/13	P1121513.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dalapon	Ave	11407065 230682357	22502622 462456038	46247353	91154257	113830080	0.0100 0.200	0.0200 0.400	0.0400	0.0800	0.100
Dicamba	Ave	18996566 388206402	39073662 761764219	78863055	158411222	195827483	0.0100 0.200	0.0200 0.400	0.0400	0.0800	0.100
MCPP	Ave	10045872 +++++	20953033 +++++	39782734	68735328	80508911	2.00 +++++	4.00 +++++	8.00	16.0	20.0
MCPA	Ave	15612071 +++++	29901196 +++++	52087377	86201348	99137284	2.00 +++++	4.00 +++++	8.00	16.0	20.0
Dichlorprop	Ave	7966927 133196398	15577722 256864884	31124770	58024244	70842515	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200
2,4-D	Ave	8769336 159549578	17464603 311310585	36066464	69184169	84396945	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200
Silvex (2,4,5-TP)	Ave	10104509 225622001	20354439 445322425	43593443	90947589	111948167	0.00500 0.100	0.0100 0.200	0.0200	0.0400	0.0500
2,4,5-T	Ave	22352418 535181482	45758004 1054546594	101506551	211066909	261322210	0.00500 0.100	0.0100 0.200	0.0200	0.0400	0.0500
2,4-DB	Ave	3553301 75273061	7109130 144678936	15350599	30800054	37487129	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200
Dinoseb	Ave	2734489 62135351	5275479 117141435	11579607	23880180	30060289	0.00300 0.0600	0.00600 0.120	0.0120	0.0240	0.0300
2,4-Dichlorophenylacetic acid	Ave	9458800 149614677	18570884 291734440	35657707	65206784	79448455	0.0200 0.400	0.0400 0.800	0.0800	0.160	0.200

Curve Type Legend:
Ave = Average by Height

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210910/14 Calibration Date: 12/15/2015 19:02

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121514.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	168025738	157647425		0.0375	0.0400	-6.2	20.0
Dicamba	Ave	247302826	255566350		0.0413	0.0400	3.3	20.0
MCPP	Ave	799175	800393		8.02	8.00	0.2	20.0
MCPA	Lin1		1115843		8.61	8.00	7.6	20.0
Dichlorprop	Ave	52948902	56423313		0.0852	0.0800	6.6	20.0
2,4-D	Ave	59743043	56520613		0.0757	0.0800	-5.4	20.0
Silvex (2,4,5-TP)	Ave	263910496	257594900		0.0195	0.0200	-2.4	20.0
2,4,5-T	Ave	600333536	561013100		0.0187	0.0200	-6.5	20.0
2,4-DB	Ave	23348631	23055600		0.0790	0.0800	-1.3	20.0
Dinoseb	Ave	124220049	118087500		0.0114	0.0120	-4.9	20.0
2,4-Dichlorophenylacetic acid	Ave	61998625	62086125		0.0801	0.0800	0.1	20.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210910/14 Calibration Date: 12/15/2015 19:02

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121514.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.31	1.30	1.34
Dicamba	7.19	7.18	7.22
MCPP	7.48	7.46	7.50
MCPA	7.64	7.62	7.66
Dichlorprop	8.01	7.99	8.03
2,4-D	8.25	8.22	8.26
Silvex (2,4,5-TP)	9.12	9.11	9.15
2,4,5-T	9.44	9.42	9.46
2,4-DB	10.07	10.05	10.09
Dinoseb	11.28	11.25	11.31
2,4-Dichlorophenylacetic acid	7.03	7.01	7.05

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210910/14 Calibration Date: 12/15/2015 19:02

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121514.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	1144186045	1038716550		0.0363	0.0400	-9.2	20.0
Dicamba	Ave	1944110534	1989778225		0.0409	0.0400	2.3	20.0
MCPP	Ave	4711088	4952902		8.41	8.00	5.1	20.0
MCPA	Ave	6427341	6423574		8.00	8.00	-0.0	20.0
Dichlorprop	Ave	363969318	407808225		0.0896	0.0800	12.0	20.0
2,4-D	Ave	424044376	452486613		0.0854	0.0800	6.7	20.0
Silvex (2,4,5-TP)	Ave	2175929007	2147264150		0.0197	0.0200	-1.3	20.0
2,4,5-T	Ave	5035610895	4661710450		0.0185	0.0200	-7.4	20.0
2,4-DB	Ave	185177585	187839013		0.0811	0.0800	1.4	20.0
Dinoseb	Ave	966356432	864320083		0.0107	0.0120	-10.6	20.0
2,4-Dichlorophenylacetic acid	Ave	418060408	435194150		0.0833	0.0800	4.1	20.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICV 240-210910/14 Calibration Date: 12/15/2015 19:02

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121514.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.42	1.40	1.44
Dicamba	7.83	7.81	7.85
MCPP	8.01	8.00	8.04
MCPA	8.27	8.25	8.29
Dichlorprop	8.63	8.61	8.65
2,4-D	8.98	8.96	9.00
Silvex (2,4,5-TP)	9.92	9.90	9.94
2,4,5-T	10.40	10.38	10.42
2,4-DB	11.05	11.03	11.07
Dinoseb	11.43	11.40	11.46
2,4-Dichlorophenylacetic acid	7.66	7.64	7.68

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/7 Calibration Date: 12/18/2015 17:48

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121807.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	168025738	177407975		0.0422	0.0400	5.6	15.0
Dicamba	Ave	247302826	254426725		0.0412	0.0400	2.9	15.0
MCPP	Ave	799175	808007		8.09	8.00	1.1	15.0
MCPA	Lin1		1155129		8.98	8.00	12.3	15.0
Dichlorprop	Ave	52948902	55585488		0.0840	0.0800	5.0	15.0
2,4-D	Ave	59743043	61567925		0.0824	0.0800	3.1	15.0
Silvex (2,4,5-TP)	Ave	263910496	269185600		0.0204	0.0200	2.0	15.0
2,4,5-T	Ave	600333536	646411200		0.0215	0.0200	7.7	15.0
2,4-DB	Ave	23348631	23321838		0.0799	0.0800	-0.1	15.0
Dinoseb	Ave	124220049	136665417		0.0132	0.0120	10.0	15.0
2,4-Dichlorophenylacetic acid	Ave	61998625	64779038		0.0836	0.0800	4.5	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/7 Calibration Date: 12/18/2015 17:48

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121807.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.32	1.30	1.34
Dicamba	7.20	7.18	7.22
MCPP	7.48	7.46	7.50
MCPA	7.64	7.62	7.66
Dichlorprop	8.01	7.99	8.03
2,4-D	8.25	8.23	8.27
Silvex (2,4,5-TP)	9.13	9.11	9.15
2,4,5-T	9.44	9.42	9.46
2,4-DB	10.07	10.05	10.09
Dinoseb	11.29	11.26	11.32
2,4-Dichlorophenylacetic acid	7.03	7.01	7.05

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/7 Calibration Date: 12/18/2015 17:48

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121807.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	1144186045	977467275		0.0342	0.0400	-14.6	15.0
Dicamba	Ave	1944110534	1764438050		0.0363	0.0400	-9.2	15.0
MCPP	Ave	4711088	4558852		7.74	8.00	-3.2	15.0
MCPA	Ave	6427341	6022756		7.50	8.00	-6.3	15.0
Dichlorprop	Ave	363969318	355380663		0.0781	0.0800	-2.4	15.0
2,4-D	Ave	424044376	412909875		0.0779	0.0800	-2.6	15.0
Silvex (2,4,5-TP)	Ave	2175929007	2049297950		0.0188	0.0200	-5.8	15.0
2,4,5-T	Ave	5035610895	4908384250		0.0195	0.0200	-2.5	15.0
2,4-DB	Ave	185177585	176182363		0.0761	0.0800	-4.9	15.0
Dinoseb	Ave	966356432	1003936833		0.0125	0.0120	3.9	15.0
2,4-Dichlorophenylacetic acid	Ave	418060408	409849488		0.0784	0.0800	-2.0	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/7 Calibration Date: 12/18/2015 17:48

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121807.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.43	1.41	1.45
Dicamba	7.83	7.81	7.85
MCPP	8.02	8.00	8.04
MCPA	8.27	8.25	8.29
Dichlorprop	8.63	8.61	8.65
2,4-D	8.98	8.96	9.00
Silvex (2,4,5-TP)	9.93	9.91	9.95
2,4,5-T	10.40	10.38	10.42
2,4-DB	11.05	11.03	11.07
Dinoseb	11.44	11.41	11.47
2,4-Dichlorophenylacetic acid	7.66	7.64	7.68

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/13 Calibration Date: 12/18/2015 20:23

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121813.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	168025738	178709000		0.0425	0.0400	6.4	15.0
Dicamba	Ave	247302826	258545475		0.0418	0.0400	4.5	15.0
MCPP	Ave	799175	817156		8.18	8.00	2.2	15.0
MCPA	Lin1		1166300		9.09	8.00	13.6	15.0
Dichlorprop	Ave	52948902	55197938		0.0834	0.0800	4.2	15.0
2,4-D	Ave	59743043	61470538		0.0823	0.0800	2.9	15.0
Silvex (2,4,5-TP)	Ave	263910496	270234450		0.0205	0.0200	2.4	15.0
2,4,5-T	Ave	600333536	631547600		0.0210	0.0200	5.2	15.0
2,4-DB	Ave	23348631	24478063		0.0839	0.0800	4.8	15.0
Dinoseb	Ave	124220049	145961667		0.0141	0.0120	17.5*	15.0
2,4-Dichlorophenylacetic acid	Ave	61998625	65134838		0.0840	0.0800	5.1	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/13 Calibration Date: 12/18/2015 20:23

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121813.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.31	1.29	1.33
Dicamba	7.20	7.18	7.22
MCPP	7.48	7.46	7.50
MCPA	7.64	7.62	7.66
Dichlorprop	8.01	7.99	8.03
2,4-D	8.25	8.23	8.27
Silvex (2,4,5-TP)	9.13	9.11	9.15
2,4,5-T	9.44	9.42	9.46
2,4-DB	10.07	10.05	10.09
Dinoseb	11.29	11.26	11.32
2,4-Dichlorophenylacetic acid	7.03	7.01	7.05

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/13 Calibration Date: 12/18/2015 20:23

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121813.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	1144186045	1013445875		0.0354	0.0400	-11.4	15.0
Dicamba	Ave	1944110534	1754251550		0.0361	0.0400	-9.8	15.0
MCPP	Ave	4711088	4719949		8.02	8.00	0.2	15.0
MCPA	Ave	6427341	6097446		7.59	8.00	-5.1	15.0
Dichlorprop	Ave	363969318	354236400		0.0779	0.0800	-2.7	15.0
2,4-D	Ave	424044376	418599188		0.0790	0.0800	-1.3	15.0
Silvex (2,4,5-TP)	Ave	2175929007	2010683250		0.0185	0.0200	-7.6	15.0
2,4,5-T	Ave	5035610895	4916380250		0.0195	0.0200	-2.4	15.0
2,4-DB	Ave	185177585	179592063		0.0776	0.0800	-3.0	15.0
Dinoseb	Ave	966356432	1059099917		0.0132	0.0120	9.6	15.0
2,4-Dichlorophenylacetic acid	Ave	418060408	408790563		0.0782	0.0800	-2.2	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/13 Calibration Date: 12/18/2015 20:23

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121813.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.42	1.40	1.44
Dicamba	7.83	7.81	7.85
MCPP	8.02	8.00	8.04
MCPA	8.27	8.25	8.29
Dichlorprop	8.63	8.61	8.65
2,4-D	8.98	8.96	9.00
Silvex (2,4,5-TP)	9.93	9.91	9.95
2,4,5-T	10.40	10.38	10.42
2,4-DB	11.05	11.03	11.07
Dinoseb	11.44	11.41	11.47
2,4-Dichlorophenylacetic acid	7.66	7.64	7.68

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/18 Calibration Date: 12/18/2015 22:31

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121818.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	168025738	182459625		0.0434	0.0400	8.6	15.0
Dicamba	Ave	247302826	265483500		0.0429	0.0400	7.4	15.0
MCPP	Ave	799175	847130		8.48	8.00	6.0	15.0
MCPA	Lin1		1178587		9.21	8.00	15.1*	15.0
Dichlorprop	Ave	52948902	56997138		0.0861	0.0800	7.6	15.0
2,4-D	Ave	59743043	64179663		0.0859	0.0800	7.4	15.0
Silvex (2,4,5-TP)	Ave	263910496	275661900		0.0209	0.0200	4.5	15.0
2,4,5-T	Ave	600333536	630613950		0.0210	0.0200	5.0	15.0
2,4-DB	Ave	23348631	23895838		0.0819	0.0800	2.3	15.0
Dinoseb	Ave	124220049	132796500		0.0128	0.0120	6.9	15.0
2,4-Dichlorophenylacetic acid	Ave	61998625	67968475		0.0877	0.0800	9.6	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/18 Calibration Date: 12/18/2015 22:31

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121818.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.31	1.29	1.33
Dicamba	7.20	7.18	7.22
MCPP	7.48	7.46	7.50
MCPA	7.64	7.62	7.66
Dichlorprop	8.01	7.99	8.03
2,4-D	8.25	8.23	8.27
Silvex (2,4,5-TP)	9.13	9.11	9.15
2,4,5-T	9.44	9.42	9.46
2,4-DB	10.07	10.05	10.09
Dinoseb	11.29	11.26	11.32
2,4-Dichlorophenylacetic acid	7.03	7.01	7.05

FORM VII
HERBICIDES CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/18 Calibration Date: 12/18/2015 22:31

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121818.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon	Ave	1144186045	1055323225		0.0369	0.0400	-7.8	15.0
Dicamba	Ave	1944110534	1836164100		0.0378	0.0400	-5.6	15.0
MCPP	Ave	4711088	4949019		8.40	8.00	5.1	15.0
MCPA	Ave	6427341	6339254		7.89	8.00	-1.4	15.0
Dichlorprop	Ave	363969318	371432950		0.0816	0.0800	2.1	15.0
2,4-D	Ave	424044376	424640325		0.0801	0.0800	0.1	15.0
Silvex (2,4,5-TP)	Ave	2175929007	2075253350		0.0191	0.0200	-4.6	15.0
2,4,5-T	Ave	5035610895	4887704500		0.0194	0.0200	-2.9	15.0
2,4-DB	Ave	185177585	178884125		0.0773	0.0800	-3.4	15.0
Dinoseb	Ave	966356432	969319333		0.0120	0.0120	0.3	15.0
2,4-Dichlorophenylacetic acid	Ave	418060408	420301913		0.0804	0.0800	0.5	15.0

FORM VII
HERBICIDES CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: CCV 240-211535/18 Calibration Date: 12/18/2015 22:31

Instrument ID: A2HP1 Calib Start Date: 12/15/2015 16:02

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/15/2015 18:36

Lab File ID: P1121818.D

Analyte	RT	RT WINDOW	
		FROM	TO
Dalapon	1.43	1.41	1.45
Dicamba	7.83	7.81	7.85
MCPP	8.02	8.00	8.04
MCPA	8.27	8.25	8.29
Dichlorprop	8.63	8.61	8.65
2,4-D	8.99	8.97	9.01
Silvex (2,4,5-TP)	9.93	9.91	9.95
2,4,5-T	10.40	10.38	10.42
2,4-DB	11.05	11.03	11.07
Dinoseb	11.44	11.41	11.47
2,4-Dichlorophenylacetic acid	7.66	7.64	7.68

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211300/3-A

Matrix: Solid | Lab File ID: P1121814.D

Analysis Method: 8151A | Date Collected:

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 20:48

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
94-75-7	2,4-D	0.0019	U	0.0040	0.0019
93-72-1	Silvex (2,4,5-TP)	0.00027	U	0.0010	0.00027

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	66		56-120

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-211300/3-A

Matrix: Solid | Lab File ID: P1121814.D

Analysis Method: 8151A | Date Collected:

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 20:48

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	58		56-120

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211300/4-A

Matrix: Solid | Lab File ID: P1121815.D

Analysis Method: 8151A | Date Collected:

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 21:14

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
94-75-7	2,4-D	0.0160		0.0040	0.0019
93-72-1	Silvex (2,4,5-TP)	0.00397		0.0010	0.00027

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	79		56-120

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-211300/4-A

Matrix: Solid | Lab File ID: P1121815.D

Analysis Method: 8151A | Date Collected:

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 21:14

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	90		56-120

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS | Lab Sample ID: 240-59150-1 MS

Matrix: Solid (TCLP) | Lab File ID: P1121817.D

Analysis Method: 8151A | Date Collected: 12/15/2015 14:00

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 22:05

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
94-75-7	2,4-D	0.0128		0.0040	0.0019
93-72-1	Silvex (2,4,5-TP)	0.00280		0.0010	0.00027

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	66		56-120

FORM I
HERBICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Client Sample ID: D-SD-WC-1 MS | Lab Sample ID: 240-59150-1 MS

Matrix: Solid (TCLP) | Lab File ID: P1121817.D

Analysis Method: 8151A | Date Collected: 12/15/2015 14:00

Extraction Method: 8151A | Date Extracted: 12/17/2015 10:42

Sample wt/vol: 100(mL) | Date Analyzed: 12/18/2015 22:05

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 211535 | Units: mg/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	53	X	56-120

HERBICIDES ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP1 Start Date: 12/15/2015 16:02

Analysis Batch Number: 210910 End Date: 12/15/2015 23:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-210910/7 IC		12/15/2015 16:02	1	P1121507.D	CLP-1 0.53(mm)
STD1 240-210910/7 IC		12/15/2015 16:02	1	P1121507.D	CLP-2 0.53(mm)
STD2 240-210910/8 IC		12/15/2015 16:28	1	P1121508.D	CLP-1 0.53(mm)
STD2 240-210910/8 IC		12/15/2015 16:28	1	P1121508.D	CLP-2 0.53(mm)
STD3 240-210910/9 ICRT		12/15/2015 16:53	1	P1121509.D	CLP-1 0.53(mm)
STD3 240-210910/9 ICRT		12/15/2015 16:53	1	P1121509.D	CLP-2 0.53(mm)
STD4 240-210910/10 IC		12/15/2015 17:19	1	P1121510.D	CLP-1 0.53(mm)
STD4 240-210910/10 IC		12/15/2015 17:19	1	P1121510.D	CLP-2 0.53(mm)
STD5 240-210910/11 IC		12/15/2015 17:45	1	P1121511.D	CLP-1 0.53(mm)
STD5 240-210910/11 IC		12/15/2015 17:45	1	P1121511.D	CLP-2 0.53(mm)
STD6 240-210910/12 IC		12/15/2015 18:10	1	P1121512.D	CLP-1 0.53(mm)
STD6 240-210910/12 IC		12/15/2015 18:10	1	P1121512.D	CLP-2 0.53(mm)
STD7 240-210910/13 IC		12/15/2015 18:36	1	P1121513.D	CLP-1 0.53(mm)
STD7 240-210910/13 IC		12/15/2015 18:36	1	P1121513.D	CLP-2 0.53(mm)
ICV 240-210910/14		12/15/2015 19:02	1	P1121514.D	CLP-1 0.53(mm)
ICV 240-210910/14		12/15/2015 19:02	1	P1121514.D	CLP-2 0.53(mm)
ZZZZZ		12/15/2015 19:27	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 19:27	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 19:53	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 19:53	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 20:19	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 20:19	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 20:44	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 20:44	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 21:10	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 21:10	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 21:35	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 21:35	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 22:01	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 22:01	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 22:26	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 22:26	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 22:52	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 22:52	1		CLP-2 0.53(mm)
ZZZZZ		12/15/2015 23:17	1		CLP-1 0.53(mm)
ZZZZZ		12/15/2015 23:17	1		CLP-2 0.53(mm)
CCV 240-210910/25		12/15/2015 23:43	1		CLP-1 0.53(mm)
CCV 240-210910/25		12/15/2015 23:43	1		CLP-2 0.53(mm)

HERBICIDES ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: A2HP1 Start Date: 12/18/2015 17:48

Analysis Batch Number: 211535 End Date: 12/18/2015 22:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-211535/7 CCVRT		12/18/2015 17:48	1	P1121807.D	CLP-1 0.53(mm)
CCV 240-211535/7 CCVRT		12/18/2015 17:48	1	P1121807.D	CLP-2 0.53(mm)
ZZZZZ		12/18/2015 18:14	1		CLP-1 0.53(mm)
ZZZZZ		12/18/2015 18:14	1		CLP-2 0.53(mm)
ZZZZZ		12/18/2015 18:40	1		CLP-1 0.53(mm)
ZZZZZ		12/18/2015 18:40	1		CLP-2 0.53(mm)
ZZZZZ		12/18/2015 19:05	1		CLP-1 0.53(mm)
ZZZZZ		12/18/2015 19:05	1		CLP-2 0.53(mm)
ZZZZZ		12/18/2015 19:31	1		CLP-1 0.53(mm)
ZZZZZ		12/18/2015 19:31	1		CLP-2 0.53(mm)
ZZZZZ		12/18/2015 19:57	1		CLP-1 0.53(mm)
ZZZZZ		12/18/2015 19:57	1		CLP-2 0.53(mm)
CCV 240-211535/13		12/18/2015 20:23	1	P1121813.D	CLP-1 0.53(mm)
CCV 240-211535/13		12/18/2015 20:23	1	P1121813.D	CLP-2 0.53(mm)
MB 240-211300/3-A		12/18/2015 20:48	1	P1121814.D	CLP-1 0.53(mm)
MB 240-211300/3-A		12/18/2015 20:48	1	P1121814.D	CLP-2 0.53(mm)
LCS 240-211300/4-A		12/18/2015 21:14	1	P1121815.D	CLP-1 0.53(mm)
LCS 240-211300/4-A		12/18/2015 21:14	1	P1121815.D	CLP-2 0.53(mm)
240-59150-1	D-SD-WC-1	12/18/2015 21:40	1	P1121816.D	CLP-1 0.53(mm)
240-59150-1	D-SD-WC-1	12/18/2015 21:40	1	P1121816.D	CLP-2 0.53(mm)
240-59150-1 MS	D-SD-WC-1 MS	12/18/2015 22:05	1	P1121817.D	CLP-1 0.53(mm)
240-59150-1 MS	D-SD-WC-1 MS	12/18/2015 22:05	1	P1121817.D	CLP-2 0.53(mm)
CCV 240-211535/18		12/18/2015 22:31	1	P1121818.D	CLP-1 0.53(mm)
CCV 240-211535/18		12/18/2015 22:31	1	P1121818.D	CLP-2 0.53(mm)

HERBICIDES BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211244 Batch Start Date: 12/16/15 18:35 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 12/17/15 10:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXPESTBUFF1 00046	EXpH(0-14) 00011	EXTCLPFILTERS 00029	EXTCLPHCLW 00050	AnalysisComment	
240-59150-1	D-SD-WC-1	1311, 8151A, 8151A	P	1 mL	1 mL	1	1 mL	MS for BNA, Pest, Herb; MS/MSD for Metals	

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HERBICIDES BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211300 Batch Start Date: 12/17/15 10:42 Batch Analyst: Ross, Justin

Batch Method: 8151A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FirstAdjustpH	SecondAdjustpH	FinalAmount	exHERBTCLPSUR 00001
240-59150-1	D-SD-WC-1	8151A, 8151A	P	5 SU	100 mL	12	2	10 mL	1 mL
240-59150-1 MS	D-SD-WC-1	8151A, 8151A	P	5 SU	100 mL	12	2	10 mL	1 mL
MB 240-211300/3-A		8151A, 8151A		5 SU	100 mL	12	2	10 mL	1 mL
LCS 240-211300/4-A		8151A, 8151A		5 SU	100 mL	12	2	10 mL	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exHERBTSPIKEW 00018					
240-59150-1	D-SD-WC-1	8151A, 8151A	P						
240-59150-1 MS	D-SD-WC-1	8151A, 8151A	P	1 mL					
MB 240-211300/3-A		8151A, 8151A							
LCS 240-211300/4-A		8151A, 8151A		1 mL					

Batch Notes	
1:1 Sulfuric + Water Lot	2284783
Diethyl Ether Lot #	2305850
Hexane Lot#	2147437
MeCL2 Lot #	2333900
Methanol Lot Number	2297078
Na2SO4, Acidified Lot #	2305855
NaCl Lot #	2290125
NaOH Lot #	2199611
Silica Gel Lot Number	1555620
TMSDM Lot #	2118493

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG No.:

Project: LM MRC Block D Waste Characterization

Client Sample ID	Lab Sample ID
D-SD-WC-1	240-59150-1

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: D-SD-WC-1 Lab Sample ID: 240-59150-1

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG ID.:

Matrix: Solid Date Sampled: 12/15/2015 14:00

Reporting Basis: DRY Date Received: 12/16/2015 09:30

% Solids: 75.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	3.1	1.5	0.42	mg/Kg			1	6010C
7440-43-9	Cadmium	0.61	0.51	0.022	mg/Kg			1	6010C
7440-39-3	Barium	29	21	0.42	mg/Kg			1	6010C
7440-22-4	Silver	0.065	1.0	0.065	mg/Kg	U		1	6010C
7439-92-1	Lead	41	1.0	0.023	mg/Kg		B	1	6010C
7782-49-2	Selenium	0.35	2.1	0.35	mg/Kg	J		1	6010C
7440-47-3	Chromium	15	1.0	0.077	mg/Kg		B	1	6010C
7439-97-6	Mercury	0.039	0.13	0.019	mg/Kg	J		1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: D-SD-WC-1 Lab Sample ID: 240-59150-1

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG ID.:

Matrix: Solid Date Sampled: 12/15/2015 14:00

Reporting Basis: WET Date Received: 12/16/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.012	0.50	0.0029	mg/L	J		1	6010B
7440-39-3	Barium	0.26	10	0.0010	mg/L	J	B	1	6010B
7440-43-9	Cadmium	0.015	0.10	0.00014	mg/L	J		1	6010B
7440-47-3	Chromium	0.0018	0.50	0.00055	mg/L	J		1	6010B
7439-92-1	Lead	0.31	0.50	0.0019	mg/L	J		1	6010B
7782-49-2	Selenium	0.0069	0.25	0.0040	mg/L	J		1	6010B
7440-22-4	Silver	0.00092	0.50	0.00092	mg/L	U		1	6010B
7439-97-6	Mercury	0.000090	0.0020	0.000090	mg/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

ICV Source: MT6500ICV_00029 Concentration Units: ug/L

CCV Source: MTICPCCV_00063

Analyte	ICV 240-211692/4 12/18/2015 11:28				CCV 240-211692/30 12/18/2015 13:15				CCV 240-211692/42 12/18/2015 14:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	380	J	375	101	513		500	103	518		500	104
Barium	1510	J	1500	101	1990	J	2000	99	2000	J	2000	100
Cadmium	380		375	101	516		500	103	519		500	104
Chromium	1490		1500	99	1970		2000	99	1980		2000	99
Lead	374	J	375	100	488	J	500	98	493	J	500	99
Selenium	383		375	102	509		500	102	519		500	104
Silver	754		750	101	987		1000	99	993		1000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

ICV Source: MT6500ICV_00029 Concentration Units: ug/L

CCV Source: MTICPCCV_00063

Analyte	CCV 240-211692/54 12/18/2015 14:52											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	521		500	104								
Barium	2030	J	2000	101								
Cadmium	514		500	103								
Chromium	1960		2000	98								
Lead	492	J	500	98								
Selenium	522		500	104								
Silver	1000		1000	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

ICV Source: MT6500ICV_00029 Concentration Units: ug/L

CCV Source: MTICPCCV_00062

Analyte	ICV 240-211528/4 12/18/2015 07:30				CCV 240-211528/64 12/18/2015 11:39				CCV 240-211528/76 12/18/2015 12:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	373		375	100	508		500	102	533		500	107
Barium	1480		1500	99	2010		2000	100	2110		2000	106
Cadmium	377		375	101	504		500	101	529		500	106
Chromium	1470		1500	98	1940		2000	97	2030		2000	101
Lead	368		375	98	496		500	99	523		500	105
Selenium	375		375	100	505		500	101	533		500	107
Silver	766		750	102	1020		1000	102	1060		1000	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

ICV Source: MTHgStd_00020 Concentration Units: ug/L

CCV Source: MTHGCALW_01085

Analyte	ICV 240-211072/7-A 12/17/2015 09:03				CCV 240-211072/10-A 12/17/2015 16:33				CCV 240-211072/10-A 12/17/2015 16:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.89		5.00	98	4.98		5.00	100	4.64		5.00	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

ICV Source: MTHgStd_00020 Concentration Units: ug/L

CCV Source: MTHGCALW_01086

Analyte	ICV 240-211431/7-A 12/18/2015 05:28				CCV 240-211431/10-A 12/18/2015 05:34				CCV 240-211431/10-A 12/18/2015 05:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.88		5.00	98	5.18		5.00	104	5.29		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

ICV Source: MTHgStd_00020 Concentration Units: ug/L

CCV Source: MTHGCALW_01086

Analyte	CCV 240-211431/10-A 12/18/2015 06:18											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.38		5.00	108								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Method: 6010B Instrument ID: I12

Lab Sample ID: CRI 240-211692/6 Concentration Units: ug/L

CRQL Check Standard Source: ICPCRIW_00016

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	15.0	14.1	J	94	50-150
Barium	10.0	10.1	J	101	50-150
Cadmium	5.00	5.19	J	104	50-150
Chromium	5.00	5.14	J	103	50-150
Lead	10.0	9.86	J	99	50-150
Selenium	20.0	19.7	J	98	50-150
Silver	5.00	5.62	J	112	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Method: 6010C Instrument ID: I9

Lab Sample ID: CRI 240-211528/6 Concentration Units: ug/L

CRQL Check Standard Source: ICPCRIW_00015

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	15.0	15.7		105	70-130
Cadmium	5.00	5.22		104	70-130
Barium	10.0	10.2	J	102	70-130
Silver	5.00	5.14	J	103	70-130
Lead	10.0	11.0		110	70-130
Selenium	20.0	20.2		101	70-130
Chromium	5.00	5.27	J	105	70-130

Lab Sample ID: CRI 240-211528/86 Concentration Units: ug/L

CRQL Check Standard Source: ICPCRIW_00015

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	15.0	16.0		106	70-130
Cadmium	5.00	5.27		105	70-130
Barium	10.0	11.5	J	115	70-130
Silver	5.00	5.37	J	107	70-130
Lead	10.0	11.6		116	70-130
Selenium	20.0	21.3		106	70-130
Chromium	5.00	5.70	J	114	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-211072/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01085

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.188	J	94	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Method: 7471A Instrument ID: H4

Lab Sample ID: CRA 240-211431/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01086

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.208	J	104	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-211692/5 12/18/2015 11:32		CCB 240-211692/31 12/18/2015 13:19		CCB 240-211692/43 12/18/2015 14:08		CCB 240-211692/55 12/18/2015 14:55	
		Found	C	Found	C	Found	C	Found	C
Arsenic	500	2.9	U	2.9	U	2.9	U	2.9	U
Barium	10000	1.0	U	5.76	J	1.0	U	1.67	J
Cadmium	100	0.14	U	0.183	J	0.14	U	0.14	U
Chromium	500	0.55	U	0.55	U	0.55	U	0.938	J
Lead	500	1.9	U	1.9	U	1.9	U	1.9	U
Selenium	250	4.0	U	4.0	U	4.0	U	4.0	U
Silver	500	0.92	U	0.92	U	0.92	U	0.92	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-211528/5 12/18/2015 07:34		CCB 240-211528/65 12/18/2015 11:43		CCB 240-211528/77 12/18/2015 12:37			
		Found	C	Found	C	Found	C	Found	C
Arsenic	15	2.9	U	2.9	U	2.9	U		
Barium	200	1.0	U	1.0	U	1.0	U		
Cadmium	5.0	0.14	U	0.14	U	0.14	U		
Chromium	10	0.55	U	0.55	U	0.55	U		
Lead	10	1.9	U	1.9	U	1.9	U		
Selenium	20	4.0	U	4.0	U	4.0	U		
Silver	10	0.92	U	0.92	U	0.92	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-211072/8-A 12/17/2015 09:04		CCB 240-211072/11-A 12/17/2015 16:36		CCB 240-211072/11-A 12/17/2015 16:51			
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.090	U	0.090	U	0.090	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-211431/8-A 12/18/2015 05:30		CCB 240-211431/11-A 12/18/2015 05:36		CCB 240-211431/11-A 12/18/2015 05:58		CCB 240-211431/11-A 12/18/2015 06:20	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.60	0.090	U	0.090	U	0.090	U	0.090	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-211319/2-A

Instrument Code: I12 Batch No.: 211692

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0029	U		6010B
7440-39-3	Barium	0.0010	U		6010B
7440-43-9	Cadmium	0.00014	U		6010B
7440-47-3	Chromium	0.00055	U		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0040	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-211244/1-B

Instrument Code: I12 Batch No.: 211692

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0029	U		6010B
7440-39-3	Barium	0.00133	J		6010B
7440-43-9	Cadmium	0.00014	U		6010B
7440-47-3	Chromium	0.00055	U		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0040	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-211321/1-A

Instrument Code: I9 Batch No.: 211528

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.41	U		6010C
7440-43-9	Cadmium	0.021	U		6010C
7440-39-3	Barium	0.41	U		6010C
7440-22-4	Silver	0.063	U		6010C
7439-92-1	Lead	0.0341	J		6010C
7782-49-2	Selenium	0.34	U		6010C
7440-47-3	Chromium	0.192	J		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-211320/2-A

Instrument Code: H1 Batch No.: 211362

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.000090	U		7470A

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-211244/1-C

Instrument Code: H1 Batch No.: 211362

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.000090	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-211344/1-A

Instrument Code: H4 Batch No.: 211442

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.014	U		7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICSA 240-211692/8 Instrument ID: I12

Lab File ID: I12121815A.asc ICS Source: MTTRICSAW_00029

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-2.83**	
Barium		**-0.263**	
Cadmium		**0.169**	
Chromium		**2.70**	
Lead		**-0.985**	
Selenium		**-6.58**	
Silver		**-1.11**	
Aluminum	*500000*	*507300*	*101*
Antimony		*-4.41*	
Beryllium		*0.151*	
Boron		*2.49*	
Calcium	*500000*	*459170*	*92*
Cobalt		*-5.16*	
Copper		*-0.128*	
Iron	*200000*	*183790*	*92*
Lithium		*5.21*	
Magnesium	*500000*	*493260*	*99*
Manganese		*-0.722*	
Molybdenum		*-2.18*	
Nickel		*2.33*	
Potassium		*55.7*	
Silicon		*4.11*	
Sodium		*70.1*	
Strontium		*12.8*	
Thallium		*-5.19*	
Tin		*1.66*	
Titanium		*-1.43*	
Vanadium		*-0.822*	
Zinc		*-2.26*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICSAB 240-211692/9 Instrument ID: I12

Lab File ID: I12121815A.asc ICS Source: MTICPICSABW_00010

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1000**	**1006**	**101**
Barium	**500**	**491**	**98**
Cadmium	**1000**	**1025**	**103**
Chromium	**500**	**474**	**95**
Lead	**1000**	**880**	**88**
Selenium	**1000**	**990**	**99**
Silver	**1000**	**1057**	**106**
Aluminum	*500000*	*505920*	*101*
Antimony	*1000*	*1007*	*101*
Beryllium	*500*	*482*	*96*
Boron	*500*	*507*	*101*
Calcium	*500000*	*452640*	*91*
Cobalt	*500*	*485*	*97*
Copper	*500*	*531*	*106*
Iron	*200000*	*182980*	*91*
Lithium	*500*	*538*	*108*
Magnesium	*500000*	*479060*	*96*
Manganese	*500*	*478*	*96*
Molybdenum	*1000*	*946*	*95*
Nickel	*1000*	*976*	*98*
Potassium	*10000*	*10351*	*104*
Silicon	*10000*	*9873*	*99*
Sodium	*10000*	*10293*	*103*
Strontium	*1500*	*1400*	*93*
Thallium	*1000*	*935*	*93*
Tin	*500*	*504*	*101*
Titanium	*500*	*491*	*98*
Vanadium	*500*	*474*	*95*
Zinc	*1000*	*989*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICSA 240-211528/8 Instrument ID: I9

Lab File ID: I9121815A.asc ICS Source: MTTRICSAW_00028

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-0.307**	
Barium		**0.127**	
Cadmium		**0.792**	
Chromium		**3.48**	
Lead		**0.140**	
Selenium		**-0.480**	
Silver		**0.0187**	
Aluminum	*500000*	*516980*	*103*
Antimony		*0.873*	
Beryllium		*-0.376*	
Boron		*-2.67*	
Calcium	*500000*	*490420*	*98*
Cobalt		*-0.883*	
Copper		*0.204*	
Iron	*200000*	*193730*	*97*
Lithium		*6.85*	
Magnesium	*500000*	*506270*	*101*
Manganese		*-0.190*	
Molybdenum		*-1.85*	
Nickel		*4.87*	
Potassium		*-24.5*	
Silicon		*3.35*	
Sodium		*160*	
Strontium		*11.4*	
Thallium		*-3.62*	
Tin		*3.95*	
Titanium		*0.492*	
Vanadium		*-2.74*	
Zinc		*1.99*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Lab Sample ID: ICSAB 240-211528/9 Instrument ID: I9

Lab File ID: I9121815A.asc ICS Source: MTICPICSABW_00009

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1000**	**1008**	**101**
Barium	**500**	**489**	**98**
Cadmium	**1000**	**1029**	**103**
Chromium	**500**	**477**	**95**
Lead	**1000**	**904**	**90**
Selenium	**1000**	**991**	**99**
Silver	**1000**	**1092**	**109**
Aluminum	*500000*	*513840*	*103*
Antimony	*1000*	*1011*	*101*
Beryllium	*500*	*487*	*97*
Boron	*500*	*507*	*101*
Calcium	*500000*	*483390*	*97*
Cobalt	*500*	*499*	*100*
Copper	*500*	*517*	*103*
Iron	*200000*	*191090*	*96*
Lithium	*500*	*533*	*107*
Magnesium	*500000*	*492730*	*99*
Manganese	*500*	*496*	*99*
Molybdenum	*1000*	*971*	*97*
Nickel	*1000*	*989*	*99*
Potassium	*10000*	*10416*	*104*
Silicon	*10000*	*9842*	*98*
Sodium	*10000*	*10554*	*106*
Strontium	*1500*	*1435*	*96*
Thallium	*1000*	*950*	*95*
Tin	*500*	*514*	*103*
Titanium	*500*	*507*	*101*
Vanadium	*500*	*481*	*96*
Zinc	*1000*	*1004*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: D-SD-WC-1 MS
Lab ID: 240-59150-1 MS
Lab Name: TestAmerica Canton
Job No.: 240-59150-1
SDG No.:
Matrix: Solid
Concentration Units: mg/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	5.77		0.012	J	5.00	115	75-125		6010B
Barium	54.1		0.26	J	50.0	108	75-125		6010B
Cadmium	1.14		0.015	J	1.00	113	75-125		6010B
Chromium	5.49		0.0018	J	5.00	110	75-125		6010B
Lead	5.67		0.31	J	5.00	107	75-125		6010B
Selenium	1.18	J	0.0069	J	1.00	118	75-125		6010B
Silver	1.11	J	0.00092	U	1.00	111	75-125		6010B
Mercury	0.00468		0.000090	U	0.00500	94	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-59175-H-1-C MS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/Kg

% Solids: 82.1

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.260		0.053	J	0.217	95	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: D-SD-WC-1 MSD | Lab ID: 240-59150-1 MSD

Lab Name: TestAmerica Canton | Job No.: 240-59150-1

SDG No.:

Matrix: Solid | Concentration Units: mg/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	5.17		5.00	103	75-125	11	20		6010B
Barium	48.1	J	50.0	96	75-125	12	20		6010B
Cadmium	1.04		1.00	102	75-125	10	20		6010B
Chromium	4.97		5.00	99	75-125	10	20		6010B
Lead	5.11		5.00	96	75-125	10	20		6010B
Selenium	1.05	J	1.00	104	75-125	12	20		6010B
Silver	0.996	J	1.00	100	75-125	11	20		6010B
Mercury	0.00419		0.00500	84	80-120	11	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-59175-H-1-D MSD

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 82.1

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.271		0.217	100	80-120	4	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-211319/3-A

Lab Name: TestAmerica Canton Job No.: 240-59150-1

Sample Matrix: Water LCS Source: MTICP1_00049

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	2.00	2.31		116	50	150		6010B
Barium	2.00	2.09	J	105	50	150		6010B
Cadmium	0.0500	0.0557	J	111	50	150		6010B
Chromium	0.200	0.212	J	106	50	150		6010B
Lead	0.500	0.488	J	98	50	150		6010B
Selenium	2.00	2.38		119	50	150		6010B
Silver	0.0500	0.0581	J	116	50	150		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-211321/2-A

Lab Name: TestAmerica Canton Job No.: 240-59150-1

Sample Matrix: Solid LCS Source: MTICP1_00049

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	200	210		105	80	120		6010C
Cadmium	5.00	5.18		104	80	120		6010C
Barium	200	197		99	80	120		6010C
Silver	5.00	4.99		100	80	120		6010C
Lead	50.0	51.9		104	80	120		6010C
Selenium	200	209		105	80	120		6010C
Chromium	20.0	19.8		99	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-211320/3-A

Lab Name: TestAmerica Canton Job No.: 240-59150-1

Sample Matrix: Water LCS Source: MTHGCALW_01086

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00500	0.00502		100	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-211344/2-A

Lab Name: TestAmerica Canton Job No.: 240-59150-1

Sample Matrix: Solid LCS Source: MTHGCALW_01086

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.833	0.839		101	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 240-59150-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-59150-1

Matrix: Solid Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	0.012	J	0.015	U	NC		6010B
Barium	0.26	J	0.259	J	0.55		6010B
Cadmium	0.015	J	0.0144	J	1.4		6010B
Chromium	0.0018	J	0.0028	U	NC		6010B
Lead	0.31	J	0.330	J	7.1		6010B
Selenium	0.0069	J	0.020	U	NC		6010B
Silver	0.00092	U	0.0046	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: I12

Method: 6010B MDL Date: 09/09/2014 14:34

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.5	0.0029
Barium	493.409	10	0.001
Cadmium	226.502	0.1	0.00014
Chromium	267.716	0.5	0.00055
Lead	220.353	0.5	0.0019
Selenium	196.026	0.25	0.004
Silver	328.068	0.5	0.00092

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: I12

Method: 6010B XMDL Date: 09/09/2014 14:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Arsenic	189.042	500	2.9
Barium	493.409	10000	1
Cadmium	226.502	100	0.14
Chromium	267.716	500	0.55
Lead	220.353	500	1.9
Selenium	196.026	250	4
Silver	328.068	500	0.92

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: I9

Method: 6010C MDL Date: 09/09/2014 14:47

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Arsenic	189.042	1.5	0.41
Barium	493.409	20	0.41
Cadmium	226.502	0.5	0.021
Chromium	267.716	1	0.075
Lead	220.353	1	0.022
Selenium	196.026	2	0.34
Silver	328.068	1	0.063

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: I9

Method: 6010C XMDL Date: 09/09/2014 14:47

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Arsenic	189.042	15	2.9
Barium	493.409	200	1
Cadmium	226.502	5	0.14
Chromium	267.716	10	0.55
Lead	220.353	10	1.9
Selenium	196.026	20	4
Silver	328.068	10	0.92

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7470A MDL Date: 09/17/2014 14:10

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00009

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7470A XMDL Date: 09/17/2014 14:11

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Mercury	253.7	2	0.00009

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: H4

Method: 7471A MDL Date: 09/17/2014 14:20

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury	253.7	0.1	0.014

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: H4

Method: 7471A XMDL Date: 09/17/2014 14:15

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.6	0.09

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 07/28/2015

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.008918				0.048658	
Antimony		-0.000075			0.000057			-0.000049						0.001495	
Arsenic		0.000027			-0.000415	0.001072			-0.000355	0.002123					
Beryllium														0.000099	
Cadmium			0.013144					0.000006							
Cobalt													0.002135		
Copper				0.000018	0.000115			0.000004							
Lead		-0.00009					0.000101	0.000049			0.000131	0.000046			
Lithium				0.000011											
Nickel					0.000518			0.000057							
Selenium		-0.000005							0.000338						
Thallium					0.002805				0.000571				-0.001081	-0.000275	
Vanadium								0.000041							
Zinc						-0.001092									

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 09/08/2015

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.015924					0.044024
Antimony		-0.000076			-0.000656			-0.000023							0.002334
Arsenic		0.000033			0.000027	0.001049			-0.000355	0.002582					
Barium															
Beryllium															0.000074
Boron															
Cadmium			0.018675					0.000003							
Calcium															
Chromium															
Cobalt													0.002117		
Copper				0.000023	0.000140			0.000012							
Iron															
Lead		-0.000102					0.000315	0.000034			0.000066	0.000060			
Lithium				0.000022											
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000518			0.00005							
Potassium															
Selenium		-0.000006							0.000338						
Silver															
Sodium															
Strontium															
Thallium					0.002681				0.000571				0.000467		-0.007071
Tin															
Titanium															
Vanadium								0.000049							
Zinc						-0.000592									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-59150-1

SDG No.:

Instrument ID: I12 Date: 07/28/2015 11:56

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		5000	6010B
Barium		25000	6010B
Cadmium		2000	6010B
Chromium		20000	6010B
Lead		15000	6010B
Selenium		10000	6010B
Silver		2000	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-59150-1

SDG No.:

Instrument ID: I9 Date: 09/09/2015 09:16

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		5000	6010C
Cadmium		2000	6010C
Barium		25000	6010C
Silver		2000	6010C
Lead		15000	6010C
Selenium		10000	6010C
Chromium		20000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-59150-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-59150-1

SDG No.:

Instrument ID: H4 Date: 12/10/2013 15:55

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7471A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-211244/1-B	12/17/2015 11:13	211319		50	50
MB 240-211319/2-A	12/17/2015 11:13	211319		50	50
LCS 240-211319/3-A	12/17/2015 11:13	211319		50	50
240-59150-1	12/17/2015 11:13	211319		50	50
240-59150-1 MS	12/17/2015 11:13	211319		50	50
240-59150-1 MSD	12/17/2015 11:13	211319		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-211321/1-A	12/17/2015 11:20	211321	1.00		100
LCS 240-211321/2-A	12/17/2015 11:20	211321	1.00		100
240-59150-1	12/17/2015 11:20	211321	1.29		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-211244/1-C	12/17/2015 14:00	211320		50	50
MB 240-211320/2-A	12/17/2015 14:00	211320		50	50
LCS 240-211320/3-A	12/17/2015 14:00	211320		50	50
240-59150-1	12/17/2015 14:00	211320		50	50
240-59150-1 MS	12/17/2015 14:00	211320		50	50
240-59150-1 MSD	12/17/2015 14:00	211320		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-211344/1-A	12/17/2015 14:55	211344	0.60		100
LCS 240-211344/2-A	12/17/2015 14:55	211344	0.60		100
240-59175-H-1-C MS	12/17/2015 14:55	211344	0.56		100
240-59175-H-1-D MSD	12/17/2015 14:55	211344	0.56		100
240-59150-1	12/17/2015 14:55	211344	0.59		100

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 12/18/2015 11:16 End Date: 12/19/2015 01:31

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ICIS 240-211692/1	1		11:16	X	X	X	X	X	X	X													
CALSTD 240-211692/2 IC			11:20	X	X	X	X	X	X	X													
CALSTD 240-211692/3 IC			11:24	X	X	X	X	X	X	X													
ICV 240-211692/4	1		11:28	X	X	X	X	X	X	X													
ICB 240-211692/5	1		11:32	X	X	X	X	X	X	X													
CRI 240-211692/6	1		11:36	X	X	X	X	X	X	X													
ZZZZZZ			11:40																				
ICSA 240-211692/8	1		11:44	X	X	X	X	X	X	X													
ICSAB 240-211692/9	1		11:48	X	X	X	X	X	X	X													
CCV 240-211692/10			11:52																				
CCB 240-211692/11			11:56																				
ZZZZZZ			12:00																				
ZZZZZZ			12:04																				
ZZZZZZ			12:08																				
ZZZZZZ			12:12																				
ZZZZZZ			12:16																				
ZZZZZZ			12:21																				
CCV 240-211692/18			12:25																				
CCB 240-211692/19			12:29																				
ZZZZZZ			12:36																				
ZZZZZZ			12:40																				
ZZZZZZ			12:44																				
ZZZZZZ			12:48																				
ZZZZZZ			12:52																				
ZZZZZZ			12:55																				
ZZZZZZ			12:59																				
ZZZZZZ			13:03																				
ZZZZZZ			13:07																				
ZZZZZZ			13:11																				
CCV 240-211692/30	1		13:15	X	X	X	X	X	X	X													
CCB 240-211692/31	1		13:19	X	X	X	X	X	X	X													
ZZZZZZ			13:23																				
ZZZZZZ			13:27																				
ZZZZZZ			13:31																				
ZZZZZZ			13:35																				
LB 240-211244/1-B	1	P	13:40	X	X	X	X	X	X	X													
MB 240-211319/2-A	1	T	13:44	X	X	X	X	X	X	X													
LCS 240-211319/3-A	1	T	13:48	X	X	X	X	X	X	X													
240-59150-1	1	P	13:52	X	X	X	X	X	X	X													
240-59150-1 SD	5	P	13:56	X	X	X	X	X	X	X													
240-59150-1 MS	5	P	14:00	X	X	X	X	X	X	X													

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 12/18/2015 11:16 End Date: 12/19/2015 01:31

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
CCV 240-211692/42	1		14:04	X	X	X	X	X	X	X													
CCB 240-211692/43	1		14:08	X	X	X	X	X	X	X													
240-59150-1 MSD	5	P	14:12	X	X	X	X	X	X	X													
ZZZZZZ			14:17																				
ZZZZZZ			14:20																				
ZZZZZZ			14:24																				
ZZZZZZ			14:28																				
ZZZZZZ			14:32																				
ZZZZZZ			14:36																				
ZZZZZZ			14:40																				
ZZZZZZ			14:44																				
ZZZZZZ			14:47																				
CCV 240-211692/54	1		14:52	X	X	X	X	X	X	X													
CCB 240-211692/55	1		14:55	X	X	X	X	X	X	X													
ZZZZZZ			15:00																				
ZZZZZZ			15:04																				
ZZZZZZ			15:08																				
ZZZZZZ			15:12																				
ZZZZZZ			15:16																				
ZZZZZZ			15:20																				
ZZZZZZ			15:24																				
ZZZZZZ			15:29																				
ZZZZZZ			15:33																				
ZZZZZZ			15:37																				
CCV 240-211692/66			15:41																				
CCB 240-211692/67			15:45																				
ZZZZZZ			15:49																				
ZZZZZZ			15:53																				
ZZZZZZ			15:57																				
ZZZZZZ			16:01																				
ZZZZZZ			16:05																				
ZZZZZZ			16:09																				
ZZZZZZ			16:13																				
ZZZZZZ			16:17																				
ZZZZZZ			16:22																				
ZZZZZZ			16:26																				
CCV 240-211692/78			16:29																				
CCB 240-211692/79			16:33																				
ZZZZZZ			16:37																				
ZZZZZZ			16:41																				
ZZZZZZ			16:45																				
ZZZZZZ			16:49																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 12/18/2015 11:16 End Date: 12/19/2015 01:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			16:53																				
ZZZZZZ			16:56																				
ZZZZZZ			17:01																				
ZZZZZZ			17:05																				
ZZZZZZ			17:09																				
ZZZZZZ			17:13																				
CCV 240-211692/90			17:17																				
CCB 240-211692/91			17:20																				
ZZZZZZ			17:24																				
ZZZZZZ			17:29																				
ZZZZZZ			17:33																				
ZZZZZZ			17:36																				
ZZZZZZ			17:40																				
ZZZZZZ			17:44																				
ZZZZZZ			17:48																				
ZZZZZZ			17:52																				
ZZZZZZ			17:56																				
ZZZZZZ			18:00																				
CCV 240-211692/102			18:04																				
CCB 240-211692/103			18:08																				
ZZZZZZ			18:12																				
ZZZZZZ			18:16																				
ZZZZZZ			18:20																				
ZZZZZZ			18:24																				
ZZZZZZ			18:28																				
ZZZZZZ			18:32																				
ZZZZZZ			18:36																				
ZZZZZZ			18:40																				
ZZZZZZ			18:45																				
ZZZZZZ			18:49																				
CCV 240-211692/114			18:53																				
CCB 240-211692/115			18:56																				
ZZZZZZ			19:01																				
ZZZZZZ			19:05																				
ZZZZZZ			19:09																				
ZZZZZZ			19:13																				
ZZZZZZ			19:16																				
ZZZZZZ			19:21																				
ZZZZZZ			19:25																				
ZZZZZZ			19:29																				
ZZZZZZ			19:33																				
ZZZZZZ			19:37																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 12/18/2015 11:16 End Date: 12/19/2015 01:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
CCV 240-211692/126			19:41																				
CCB 240-211692/127			19:44																				
ZZZZZZ			19:49																				
ZZZZZZ			19:53																				
ZZZZZZ			19:57																				
ZZZZZZ			20:01																				
ZZZZZZ			20:05																				
ZZZZZZ			20:10																				
ZZZZZZ			20:14																				
ZZZZZZ			20:17																				
ZZZZZZ			20:21																				
ZZZZZZ			20:26																				
CCV 240-211692/138			20:30																				
CCB 240-211692/139			20:33																				
ZZZZZZ			20:38																				
ZZZZZZ			20:42																				
ZZZZZZ			20:46																				
ZZZZZZ			20:50																				
ZZZZZZ			20:54																				
ZZZZZZ			20:59																				
ZZZZZZ			21:03																				
ZZZZZZ			21:07																				
ZZZZZZ			21:11																				
ZZZZZZ			21:15																				
CCV 240-211692/150			21:19																				
CCB 240-211692/151			21:22																				
ZZZZZZ			21:26																				
ZZZZZZ			21:31																				
ZZZZZZ			21:35																				
ZZZZZZ			21:38																				
ZZZZZZ			21:42																				
ZZZZZZ			21:46																				
ZZZZZZ			21:50																				
ZZZZZZ			21:54																				
ZZZZZZ			21:58																				
ZZZZZZ			22:02																				
CCV 240-211692/162			22:06																				
CCB 240-211692/163			22:10																				
ZZZZZZ			22:14																				
ZZZZZZ			22:18																				
ZZZZZZ			22:22																				
ZZZZZZ			22:27																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 12/18/2015 11:16 End Date: 12/19/2015 01:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			22:31																				
ZZZZZZ			22:35																				
ZZZZZZ			22:39																				
ZZZZZZ			22:43																				
ZZZZZZ			22:47																				
ZZZZZZ			22:51																				
CCV 240-211692/174			22:55																				
CCB 240-211692/175			22:59																				
ZZZZZZ			23:03																				
ZZZZZZ			23:07																				
ZZZZZZ			23:11																				
ZZZZZZ			23:15																				
ZZZZZZ			23:19																				
ZZZZZZ			23:23																				
ZZZZZZ			23:27																				
ZZZZZZ			23:31																				
ZZZZZZ			23:35																				
ZZZZZZ			23:39																				
CCV 240-211692/186			23:43																				
CCB 240-211692/187			23:46																				
ZZZZZZ			23:50																				
ZZZZZZ			23:54																				
ZZZZZZ			23:58																				
ZZZZZZ			00:02																				
ZZZZZZ			00:06																				
ZZZZZZ			00:10																				
ZZZZZZ			00:14																				
ZZZZZZ			00:18																				
ZZZZZZ			00:22																				
ZZZZZZ			00:27																				
CCV 240-211692/198			00:31																				
CCB 240-211692/199			00:34																				
ZZZZZZ			00:38																				
ZZZZZZ			00:43																				
ZZZZZZ			00:47																				
ZZZZZZ			00:51																				
ZZZZZZ			00:55																				
ZZZZZZ			00:59																				
ZZZZZZ			01:03																				
ZZZZZZ			01:07																				
ZZZZZZ			01:11																				
ZZZZZZ			01:15																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 12/18/2015 11:16 End Date: 12/19/2015 01:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
CCV 240-211692/210			01:19																				
CCB 240-211692/211			01:23																				
CCV 240-211692/212			01:27																				
CCB 240-211692/213			01:31																				

Prep Types

P = TCLP

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 12/18/2015 07:17 End Date: 12/18/2015 19:31

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ICIS 240-211528/1	1		07:17	X	X	X	X	X	X	X													
CALSTD 240-211528/2 IC			07:21	X	X	X	X	X	X	X													
CALSTD 240-211528/3 IC			07:26	X	X	X	X	X	X	X													
ICV 240-211528/4	1		07:30	X	X	X	X	X	X	X													
ICB 240-211528/5	1		07:34	X	X	X	X	X	X	X													
CRI 240-211528/6	1		07:38	X	X	X	X	X	X	X													
ZZZZZZ			07:42																				
ICSA 240-211528/8	1		07:46	X	X	X	X	X	X	X													
ICSAB 240-211528/9	1		07:51	X	X	X	X	X	X	X													
CCV 240-211528/10			07:54																				
CCB 240-211528/11			07:58																				
ZZZZZZ			08:03																				
ZZZZZZ			08:07																				
ZZZZZZ			08:11																				
ZZZZZZ			08:15																				
ZZZZZZ			08:19																				
ZZZZZZ			08:24																				
CCV 240-211528/18			08:28																				
CCB 240-211528/19			08:32																				
ZZZZZZ			08:37																				
ZZZZZZ			08:41																				
ZZZZZZ			08:46																				
ZZZZZZ			08:50																				
ZZZZZZ			08:54																				
ZZZZZZ			08:58																				
ZZZZZZ			09:02																				
ZZZZZZ			09:06																				
ZZZZZZ			09:10																				
ZZZZZZ			09:14																				
CCV 240-211528/30			09:18																				
CCB 240-211528/31			09:22																				
ZZZZZZ			09:27																				
ZZZZZZ			09:31																				
ZZZZZZ			09:35																				
ZZZZZZ			09:39																				
ZZZZZZ			09:43																				
ZZZZZZ			09:47																				
ZZZZZZ			09:52																				
ZZZZZZ			09:56																				
ZZZZZZ			10:00																				
ZZZZZZ			10:04																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 12/18/2015 07:17 End Date: 12/18/2015 19:31

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
CCV 240-211528/42			10:08																				
CCB 240-211528/43			10:12																				
ZZZZZZ			10:16																				
ZZZZZZ			10:20																				
ZZZZZZ			10:24																				
ZZZZZZ			10:28																				
ZZZZZZ			10:33																				
ZZZZZZ			10:37																				
ZZZZZZ			10:41																				
ZZZZZZ			10:45																				
ZZZZZZ			10:49																				
ZZZZZZ			10:54																				
CCV 240-211528/54			10:58																				
CCB 240-211528/55			11:02																				
ZZZZZZ			11:06																				
ZZZZZZ			11:10																				
ZZZZZZ			11:14																				
ZZZZZZ			11:18																				
ZZZZZZ			11:23																				
ZZZZZZ			11:27																				
ZZZZZZ			11:31																				
ZZZZZZ			11:35																				
CCV 240-211528/64	1		11:39	X	X	X	X	X	X	X													
CCB 240-211528/65	1		11:43	X	X	X	X	X	X	X													
MB 240-211321/1-A	1	T	11:51	X	X	X	X	X	X	X													
LCS 240-211321/2-A	1	T	11:55	X	X	X	X	X	X	X													
240-59150-1	1	T	11:59	X	X	X	X	X	X	X													
ZZZZZZ			12:03																				
ZZZZZZ			12:07																				
ZZZZZZ			12:11																				
ZZZZZZ			12:16																				
ZZZZZZ			12:20																				
ZZZZZZ			12:25																				
ZZZZZZ			12:29																				
CCV 240-211528/76	1		12:33	X	X	X	X	X	X	X													
CCB 240-211528/77	1		12:37	X	X	X	X	X	X	X													
ZZZZZZ			12:42																				
ZZZZZZ			12:46																				
ZZZZZZ			12:50																				
ZZZZZZ			12:54																				
ZZZZZZ			12:58																				
ZZZZZZ			13:02																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 12/18/2015 07:17 End Date: 12/18/2015 19:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			13:06																				
ZZZZZZ			13:10																				
CRI 240-211528/86	1		13:14	X	X	X	X	X	X	X													
ZZZZZZ			13:18																				
CCV 240-211528/88			13:22																				
CCB 240-211528/89			13:26																				
CCV 240-211528/90			13:30																				
CCB 240-211528/91			13:34																				
ZZZZZZ			13:38																				
ZZZZZZ			13:43																				
ZZZZZZ			13:47																				
ZZZZZZ			13:51																				
ZZZZZZ			13:55																				
ZZZZZZ			13:59																				
ZZZZZZ			14:03																				
ZZZZZZ			14:07																				
CCV 240-211528/100			14:11																				
CCB 240-211528/101			14:15																				
ZZZZZZ			14:19																				
ZZZZZZ			14:23																				
ZZZZZZ			14:27																				
ZZZZZZ			14:32																				
ZZZZZZ			14:36																				
ZZZZZZ			14:40																				
ZZZZZZ			14:44																				
ZZZZZZ			14:49																				
ZZZZZZ			14:53																				
ZZZZZZ			14:57																				
CCV 240-211528/112			15:01																				
CCB 240-211528/113			15:05																				
ZZZZZZ			15:09																				
ZZZZZZ			15:13																				
ZZZZZZ			15:17																				
ZZZZZZ			15:21																				
ZZZZZZ			15:25																				
ZZZZZZ			15:30																				
ZZZZZZ			15:34																				
ZZZZZZ			15:38																				
ZZZZZZ			15:42																				
ZZZZZZ			15:47																				
CCV 240-211528/124			15:51																				
CCB 240-211528/125			15:55																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 12/18/2015 07:17 End Date: 12/18/2015 19:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			15:59																				
ZZZZZZ			16:03																				
ZZZZZZ			16:07																				
ZZZZZZ			16:11																				
ZZZZZZ			16:16																				
ZZZZZZ			16:20																				
ZZZZZZ			16:25																				
ZZZZZZ			16:29																				
ZZZZZZ			16:33																				
ZZZZZZ			16:38																				
CCV 240-211528/136			16:42																				
CCB 240-211528/137			16:46																				
ZZZZZZ			16:50																				
ZZZZZZ			16:54																				
ZZZZZZ			16:59																				
ZZZZZZ			17:03																				
ZZZZZZ			17:07																				
ZZZZZZ			17:11																				
ZZZZZZ			17:16																				
ZZZZZZ			17:20																				
ZZZZZZ			17:24																				
ZZZZZZ			17:29																				
CCV 240-211528/148			17:33																				
CCB 240-211528/149			17:37																				
ZZZZZZ			17:41																				
ZZZZZZ			17:45																				
ZZZZZZ			17:49																				
ZZZZZZ			17:53																				
ZZZZZZ			17:57																				
ZZZZZZ			18:01																				
ZZZZZZ			18:05																				
ZZZZZZ			18:09																				
ZZZZZZ			18:13																				
ZZZZZZ			18:17																				
CCV 240-211528/160			18:21																				
CCB 240-211528/161			18:25																				
ZZZZZZ			18:29																				
ZZZZZZ			18:33																				
ZZZZZZ			18:37																				
ZZZZZZ			18:41																				
ZZZZZZ			18:45																				
ZZZZZZ			18:49																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 12/18/2015 07:17 End Date: 12/18/2015 19:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			18:53																				
ZZZZZZ			18:57																				
ZZZZZZ			19:02																				
ZZZZZZ			19:06																				
CCV 240-211528/172			19:10																				
CCB 240-211528/173			19:14																				
ZZZZZZ			19:18																				
ZZZZZZ			19:22																				
ZZZZZZ			19:27																				
ZZZZZZ			19:31																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 12/17/2015 08:50 End Date: 12/17/2015 16:51

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-211072/1-A			08:50	X																			
IC 240-211072/2-A			08:52	X																			
IC 240-211072/3-A			08:54	X																			
IC 240-211072/4-A			08:56	X																			
IC 240-211072/5-A			08:58	X																			
IC 240-211072/6-A			09:00	X																			
ICV 240-211072/7-A	1		09:03	X																			
ICB 240-211072/8-A	1		09:04	X																			
CRA 240-211072/9-A			09:06																				
CRA 240-211072/9-A	1		09:09	X																			
CCV 240-211072/10-A			11:29																				
CCB 240-211072/11-A			11:31																				
ZZZZZZ			11:32																				
ZZZZZZ			11:34																				
ZZZZZZ			11:36																				
ZZZZZZ			11:37																				
ZZZZZZ			11:39																				
ZZZZZZ			11:40																				
ZZZZZZ			11:41																				
ZZZZZZ			11:43																				
ZZZZZZ			11:46																				
ZZZZZZ			11:47																				
CCV 240-211072/10-A			11:48																				
CCB 240-211072/11-A			11:50																				
ZZZZZZ			11:52																				
ZZZZZZ			11:53																				
ZZZZZZ			11:55																				
ZZZZZZ			11:56																				
ZZZZZZ			11:58																				
ZZZZZZ			11:59																				
ZZZZZZ			12:01																				
ZZZZZZ			12:02																				
ZZZZZZ			12:04																				
ZZZZZZ			12:05																				
CCV 240-211072/10-A			12:07																				
CCB 240-211072/11-A			12:09																				
ZZZZZZ			12:11																				
ZZZZZZ			12:13																				
ZZZZZZ			12:14																				
ZZZZZZ			12:16																				
ZZZZZZ			12:17																				
ZZZZZZ			12:20																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 12/17/2015 08:50 End Date: 12/17/2015 16:51

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			12:21																				
ZZZZZZ			12:23																				
ZZZZZZ			12:24																				
ZZZZZZ			12:27																				
CCV 240-211072/10-A			12:28																				
CCB 240-211072/11-A			12:30																				
ZZZZZZ			12:31																				
ZZZZZZ			12:33																				
ZZZZZZ			12:34																				
ZZZZZZ			12:36																				
ZZZZZZ			12:37																				
ZZZZZZ			12:39																				
ZZZZZZ			12:40																				
ZZZZZZ			12:41																				
ZZZZZZ			12:43																				
ZZZZZZ			12:45																				
CCV 240-211072/10-A			12:46																				
CCB 240-211072/11-A			12:48																				
ZZZZZZ			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:52																				
CCV 240-211072/10-A			12:54																				
CCB 240-211072/11-A			12:55																				
ZZZZZZ			12:56																				
ZZZZZZ			12:58																				
CCV 240-211072/10-A			13:02																				
CCB 240-211072/11-A			13:03																				
ZZZZZZ			13:05																				
ZZZZZZ			13:06																				
ZZZZZZ			13:10																				
ZZZZZZ			13:12																				
ZZZZZZ			13:13																				
ZZZZZZ			13:15																				
ZZZZZZ			13:17																				
ZZZZZZ			13:19																				
ZZZZZZ			13:20																				
CCV 240-211072/10-A			13:22																				
CCB 240-211072/11-A			13:24																				
ZZZZZZ			13:25																				
ZZZZZZ			13:27																				
ZZZZZZ			13:29																				
ZZZZZZ			13:31																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 12/17/2015 08:50 End Date: 12/17/2015 16:51

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			13:32																				
ZZZZZZ			13:34																				
ZZZZZZ			13:36																				
ZZZZZZ			13:37																				
ZZZZZZ			13:39																				
ZZZZZZ			13:40																				
CCV 240-211072/10-A			13:42																				
CCB 240-211072/11-A			13:43																				
ZZZZZZ			13:45																				
ZZZZZZ			13:46																				
ZZZZZZ			13:48																				
ZZZZZZ			13:49																				
ZZZZZZ			13:51																				
ZZZZZZ			13:53																				
ZZZZZZ			13:54																				
ZZZZZZ			13:56																				
ZZZZZZ			13:57																				
ZZZZZZ			13:59																				
CCV 240-211072/10-A			14:01																				
CCB 240-211072/11-A			14:02																				
ZZZZZZ			14:03																				
ZZZZZZ			14:05																				
ZZZZZZ			14:06																				
CCV 240-211072/10-A			14:08																				
CCB 240-211072/11-A			14:09																				
CCV 240-211072/10-A			14:22																				
CCB 240-211072/11-A			14:24																				
CCV 240-211072/10-A			14:26																				
CCB 240-211072/11-A			14:28																				
ZZZZZZ			14:29																				
ZZZZZZ			14:31																				
ZZZZZZ			14:33																				
CCV 240-211072/10-A			14:35																				
CCB 240-211072/11-A			14:37																				
CCV 240-211072/10-A			15:28																				
CCB 240-211072/11-A			15:29																				
CCV 240-211072/10-A			15:31																				
CCB 240-211072/11-A			15:33																				
CCV 240-211072/10-A			15:37																				
CCB 240-211072/11-A			15:39																				
ZZZZZZ			15:41																				
ZZZZZZ			15:42																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 12/17/2015 08:50 End Date: 12/17/2015 16:51

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			15:44																				
ZZZZZZ			15:45																				
ZZZZZZ			15:47																				
ZZZZZZ			15:48																				
ZZZZZZ			15:50																				
ZZZZZZ			15:51																				
ZZZZZZ			15:53																				
ZZZZZZ			15:54																				
CCV 240-211072/10-A			15:56																				
CCB 240-211072/11-A			15:58																				
ZZZZZZ			15:59																				
ZZZZZZ			16:01																				
ZZZZZZ			16:02																				
ZZZZZZ			16:04																				
ZZZZZZ			16:05																				
ZZZZZZ			16:07																				
ZZZZZZ			16:08																				
ZZZZZZ			16:10																				
ZZZZZZ			16:11																				
ZZZZZZ			16:13																				
CCV 240-211072/10-A			16:15																				
CCB 240-211072/11-A			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:19																				
ZZZZZZ			16:21																				
ZZZZZZ			16:22																				
ZZZZZZ			16:24																				
ZZZZZZ			16:26																				
ZZZZZZ			16:27																				
ZZZZZZ			16:29																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
CCV 240-211072/10-A	1		16:33	X																			
CCB 240-211072/11-A	1		16:36	X																			
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
LB 240-211244/1-C	1	P	16:41	X																			
MB 240-211320/2-A	1	T	16:42	X																			
LCS 240-211320/3-A	1	T	16:44	X																			
240-59150-1	1	P	16:46	X																			
240-59150-1 MS	1	P	16:47	X																			
240-59150-1 MSD	1	P	16:48	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 12/17/2015 08:50 End Date: 12/17/2015 16:51

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
CCV 240-211072/10-A	1		16:50	X																			
CCB 240-211072/11-A	1		16:51	X																			

Prep Types

P = TCLP

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H4 Method: 7471A

Start Date: 12/18/2015 05:17 End Date: 12/18/2015 07:53

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-211431/1-A			05:17	X																			
IC 240-211431/2-A			05:19	X																			
IC 240-211431/3-A			05:21	X																			
IC 240-211431/4-A			05:22	X																			
IC 240-211431/5-A			05:24	X																			
IC 240-211431/6-A			05:26	X																			
ICV 240-211431/7-A	1		05:28	X																			
ICB 240-211431/8-A	1		05:30	X																			
CRA 240-211431/9-A	1		05:32	X																			
CCV 240-211431/10-A	1		05:34	X																			
CCB 240-211431/11-A	1		05:36	X																			
ZZZZZZ			05:37																				
MB 240-211344/1-A	1	T	05:39	X																			
LCS 240-211344/2-A	1	T	05:41	X																			
240-59175-H-1-C MS	1	T	05:43	X																			
240-59175-H-1-D MSD	1	T	05:44	X																			
ZZZZZZ			05:46																				
ZZZZZZ			05:48																				
ZZZZZZ			05:50																				
ZZZZZZ			05:52																				
ZZZZZZ			05:54																				
CCV 240-211431/10-A	1		05:56	X																			
CCB 240-211431/11-A	1		05:58	X																			
ZZZZZZ			06:00																				
ZZZZZZ			06:02																				
ZZZZZZ			06:03																				
240-59150-1	1	T	06:05	X																			
ZZZZZZ			06:07																				
ZZZZZZ			06:09																				
ZZZZZZ			06:11																				
ZZZZZZ			06:13																				
ZZZZZZ			06:15																				
ZZZZZZ			06:16																				
CCV 240-211431/10-A	1		06:18	X																			
CCB 240-211431/11-A	1		06:20	X																			
ZZZZZZ			06:22																				
ZZZZZZ			06:24																				
ZZZZZZ			06:25																				
ZZZZZZ			06:27																				
ZZZZZZ			06:29																				
ZZZZZZ			06:31																				
ZZZZZZ			06:33																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: H4 Method: 7471A

Start Date: 12/18/2015 05:17 End Date: 12/18/2015 07:53

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			06:35																				
ZZZZZZ			06:37																				
CCV 240-211431/10-A			06:38																				
CCB 240-211431/11-A			06:40																				
CCV 240-210859/10-A			07:45																				
CCB 240-210859/11-A			07:47																				
ZZZZZZ			07:49																				
CCV 240-210859/10-A			07:51																				
CCB 240-210859/11-A			07:53																				

Prep Types

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211244 Batch Start Date: 12/16/15 18:35 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 12/17/15 10:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXPESTBUFF1 00046	EXpH(0-14) 00011	EXTCLPFILTERS 00029	EXTCLPHCLW 00050	AnalysisComment	
LB 240-211244/1-B		1311, 3010A, 6010B		1 mL	1 mL	1	1 mL	Buffer 1 - Pest	
240-59150-1	D-SD-WC-1	1311, 3010A, 6010B	P	1 mL	1 mL	1	1 mL	MS for BNA, Pest, Herb; MS/MSD for Metals	

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211319 Batch Start Date: 12/17/15 11:13 Batch Analyst: Dillon, William K

Batch Method: 3010A Batch End Date: 12/17/15 19:13

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MT1to1HCL 00063	MTAGSPIKEW 00054	MTICP1 00049	MTICP2A 00056
LB 240-211244/1-B		3010A, 6010B		50 mL	50 mL	5 mL			
MB 240-211319/2-A		3010A, 6010B		50 mL	50 mL	5 mL			
LCS 240-211319/3-A		3010A, 6010B		50 mL	50 mL	5 mL	1 mL	1 mL	1 mL
240-59150-1	D-SD-WC-1	3010A, 6010B	P	50 mL	50 mL	5 mL			
240-59150-1 MS	D-SD-WC-1	3010A, 6010B	P	50 mL	50 mL	5 mL			1 mL
240-59150-1 MSD	D-SD-WC-1	3010A, 6010B	P	50 mL	50 mL	5 mL			1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTNONRCRA+ODD 00004	MTRCRA 00010	MTTMHNO3 00077			
LB 240-211244/1-B		3010A, 6010B				3 mL			
MB 240-211319/2-A		3010A, 6010B				3 mL			
LCS 240-211319/3-A		3010A, 6010B				3 mL			
240-59150-1	D-SD-WC-1	3010A, 6010B	P			3 mL			
240-59150-1 MS	D-SD-WC-1	3010A, 6010B	P	1 mL	0.5 mL	3 mL			
240-59150-1 MSD	D-SD-WC-1	3010A, 6010B	P	1 mL	0.5 mL	3 mL			

Batch Notes	
Filter Paper Lot Number	9685320
Hot Block ID number	HB1
Pipette ID	MP1-MP3-MP5
Digestion Tube/Cup Lot #	1504103

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211321 Batch Start Date: 12/17/15 11:20 Batch Analyst: Elshaw, Dale

Batch Method: 3050B Batch End Date: 12/17/15 17:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	MT1TO1HN03 01140	MTAGSPIKEW 00054	MTH202 00056
MB 240-211321/1-A		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	10 mL		10 mL
LCS 240-211321/2-A		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	10 mL	2 mL	10 mL
240-59150-1	D-SD-WC-1	3050B, 6010C	T	CALC NOT SET TO RUN	1.29 g	100 mL	10 mL		10 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTICP1 00049	MTICP2A 00056	MTTMHCL 00092	MTTMHNO3 00077		
MB 240-211321/1-A		3050B, 6010C				10 mL	5 mL		
LCS 240-211321/2-A		3050B, 6010C		2 mL	2 mL	10 mL	5 mL		
240-59150-1	D-SD-WC-1	3050B, 6010C	T			10 mL	5 mL		

Batch Notes	
Balance ID	b039
Blank Soil Lot Number	r050-5h013
Filter Paper Lot Number	9685320
Hot Block ID number	a1 a2
Pipette ID	MP1-MP2-MP5
Digestion Tube/Cup Lot #	151109

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211072 Batch Start Date: 12/16/15 07:40 Batch Analyst: Lecorchick, Willis A

Batch Method: 7470A Batch End Date: 12/16/15 09:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00035	MTH2S04 00027	MTHGCALW 01085	MTHgStd 00020
ICV 240-211072/7-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		0.25 mL
ICB 240-211072/8-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-211072/9-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-211072/10-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-211072/11-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00100	MTTMHNO3 00077				
ICV 240-211072/7-A		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-211072/8-A		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-211072/9-A		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-211072/10-A		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-211072/11-A		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	Takeout temp with in range
Hot Block ID number	B1
Pipette ID	MP1,2,3
Digestion Tube/Cup Lot #	1504103

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211244 Batch Start Date: 12/16/15 18:35 Batch Analyst: Jones, Diane

Batch Method: 1311 Batch End Date: 12/17/15 10:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXPESTBUFF1 00046	EXpH(0-14) 00011	EXTCLPFILTERS 00029	EXTCLPHCLW 00050	AnalysisComment	
LB 240-211244/1-C		1311, 7470A, 7470A		1 mL	1 mL	1	1 mL	Buffer 1 - Pest	
240-59150-1	D-SD-WC-1	1311, 7470A, 7470A	P	1 mL	1 mL	1	1 mL	MS for BNA, Pest, Herb; MS/MSD for Metals	

Batch Notes	
Tumbler Rotations per Minute	A, B, C, E = 31rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211320 Batch Start Date: 12/17/15 14:00 Batch Analyst: Dillon, William K

Batch Method: 7470A Batch End Date: 12/17/15 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00035	MTH2S04 00027	MTHGCALW 01086	MTKMN04W 00100
LB 240-211244/1-C		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
MB 240-211320/2-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-211320/3-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-59150-1	D-SD-WC-1	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-59150-1 MS	D-SD-WC-1	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-59150-1 MSD	D-SD-WC-1	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00077					
LB 240-211244/1-C		7470A, 7470A		1.25 mL					
MB 240-211320/2-A		7470A, 7470A		1.25 mL					
LCS 240-211320/3-A		7470A, 7470A		1.25 mL					
240-59150-1	D-SD-WC-1	7470A, 7470A	P	1.25 mL					
240-59150-1 MS	D-SD-WC-1	7470A, 7470A	P	1.25 mL					
240-59150-1 MSD	D-SD-WC-1	7470A, 7470A	P	1.25 mL					

Batch Notes	
Batch Comment	Takeout temps within range
Hot Block ID number	c1
Pipette ID	mp2
Digestion Tube/Cup Lot #	1504103

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211344 Batch Start Date: 12/17/15 14:55 Batch Analyst: Elshaw, Dale

Batch Method: 7471A Batch End Date: 12/17/15 15:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAQUAREGIA 01216	MTHGCALW 01086	MTKMN04W 00100	
MB 240-211344/1-A		7471A, 7471A		0.60 g	100 mL	5 mL		15 mL	
LCS 240-211344/2-A		7471A, 7471A		0.60 g	100 mL	5 mL	5 mL	15 mL	
240-59175-H-1-C MS		7471A, 7471A	T	0.56 g	100 mL	5 mL	1 mL	15 mL	
240-59175-H-1-D MSD		7471A, 7471A	T	0.56 g	100 mL	5 mL	1 mL	15 mL	
240-59150-1	D-SD-WC-1	7471A, 7471A	T	0.59 g	100 mL	5 mL		15 mL	

Batch Notes	
Balance ID	b039
Batch Comment	Take out temps in range
Blank Soil Lot Number	r050-5h013
Hot Block ID number	c2
Pipette ID	MP1-MP2-MP5
Digestion Tube/Cup Lot #	1504103

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211431 Batch Start Date: 12/17/15 10:25 Batch Analyst: Lecorchick, Willis A

Batch Method: 7471A Batch End Date: 12/17/15 10:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAQUAREGIA 01216	MTHGCALW 01086	MTHgStd 00020	MTKMN04W 00100
ICV 240-211431/7-A		7471A, 7471A		100 mL	100 mL	5 mL		0.5 mL	15 mL
ICB 240-211431/8-A		7471A, 7471A		100 mL	100 mL	5 mL			15 mL
CRA 240-211431/9-A		7471A, 7471A		100 mL	100 mL	5 mL	0.2 mL		15 mL
CCV 240-211431/10-A		7471A, 7471A		100 mL	100 mL	5 mL	5 mL		15 mL
CCB 240-211431/11-A		7471A, 7471A		100 mL	100 mL	5 mL			15 mL

Batch Notes	
Batch Comment	take out temp with in range
Hot Block ID number	B1
Pipette ID	MP1, 2, 3
Digestion Tube/Cup Lot #	1504103

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG No.:

Project: LM MRC Block D Waste Characterization

Client Sample ID	Lab Sample ID
D-SD-WC-1	240-59150-1

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 240-59150-1

SDG No.:

Project: LM MRC Block D Waste Characterization

Client Sample ID	Lab Sample ID
D-SD-WC-1	240-59150-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: D-SD-WC-1 Lab Sample ID: 240-59150-1

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG ID.:

Matrix: Solid Date Sampled: 12/15/2015 14:00

Reporting Basis: DRY Date Received: 12/16/2015 09:30

% Solids: 75.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Halogens, Extractable Organic	42	270	42	mg/Kg	U		1	9023

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: D-SD-WC-1 Lab Sample ID: 240-59150-1

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG ID.:

Matrix: Solid Date Sampled: 12/15/2015 14:00

Reporting Basis: WET Date Received: 12/16/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Free Liquid	CNF	0.10	0.10	NONE			1	9095B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: D-SD-WC-1 Lab Sample ID: 240-59150-1

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG ID.:

Matrix: Solid Date Sampled: 12/15/2015 14:00

Reporting Basis: DRY Date Received: 12/16/2015 09:30

% Solids: 75.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	HEM	77	130	73	mg/Kg	J		1	9071B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Analyst: TPH Batch Start Date: 12/17/2015

Reporting Units: mg/Kg Analytical Batch No.: 211352

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
6	CCV	09:20	Halogens, Extractable Organic	1030	1000	103	90-110		EOX CCV_00192
7	CCB	09:31	Halogens, Extractable Organic	32				U	
16	CCV	11:21	Halogens, Extractable Organic	1020	1000	102	90-110		EOX CCV_00192
17	CCB	11:35	Halogens, Extractable Organic	32				U	
22	CCV	12:48	Halogens, Extractable Organic	1010	1000	101	90-110		EOX CCV_00192
23	CCB	12:55	Halogens, Extractable Organic	32				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 211352	Date: 12/17/2015 09:37	Prep Batch: 211224	Date: 12/17/2015 06:55				
9023	MB 240-211224/3-A	Halogens, Extractable Organic	32	U	mg/Kg	200	1

FORM III-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 307909	Date: 12/20/2015 13:07	Prep Batch: 307906	Date: 12/20/2015 13:07				
9071B	MB 490-307906/1-A	HEM	57	U	mg/Kg	100	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 211352	Date: 12/17/2015 10:09		Prep Batch: 211224		Date: 12/17/2015 07:02						
9023	460-106284-B-1-B	Halogens, Extractable Organic	36	U	mg/Kg						
9023	460-106284-B-1-B MS	Halogens, Extractable Organic	1110		mg/Kg	1120	99	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 211352	Date: 12/17/2015 10:22		Prep Batch: 211224		Date: 12/17/2015 07:04						
9023	460-106284-B-1-C MSD	Halogens, Extractable Organic	1160		mg/Kg	1120	103	75-125	4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 307909	Date: 12/20/2015 13:07		Prep Batch: 307906		Date: 12/20/2015 13:07						
9071B	240-59150-1	HEM	77	J	mg/Kg						
9071B	240-59150-1 MS	HEM	4580		mg/Kg	5020	90	66-117			

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 211879 Date: 12/22/2015 06:30								
9095B		240-58903-A-2	Free Liquid	CNF	NONE			
9095B		240-58903-A-2 DU	Free Liquid	CNF	NONE	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 307909	Date: 12/20/2015 13:07		Prep Batch: 307906	Date: 12/20/2015 13:07				
9071B	D-SD-WC-1	240-59150-1	HEM	77	mg/Kg			J
9071B	D-SD-WC-1	240-59150-1 DU	HEM	76.3	mg/Kg	1	50	J

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 211352	Date: 12/17/2015 09:50		Prep Batch: 211224		Date: 12/17/2015 06:57						
					LCS Source: EOX LCS_00364						
9023	LCS 240-211224/4-A	Halogens, Extractable Organic	999		mg/Kg	1000	100	75-125			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 307909	Date: 12/20/2015 13:07		Prep Batch: 307906		Date: 12/20/2015 13:07						
					LCS Source: OP_HEM_spike_00003						
9071B	LCS 490-307906/2-A	HEM	3420		mg/Kg	4000	86	75-117	8	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 307909	Date: 12/20/2015 13:07		Prep Batch: 307906			Date: 12/20/2015 13:07					
						LCSD Source: OP_HEM_spike_00003					
9071B	LCSD 490-307906/3-A	HEM	3690		mg/Kg	4000	92	75-117	8	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: BRIAN

Method: 9023 MDL Date: 07/20/2015 12:37

Prep Method: 9023

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Halogens, Extractable Organic		200	32

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: BRIAN

Method: 9023 XMDL Date: 07/20/2015 12:38

Analyte	Wavelength/ Mass	XRL (mg/Kg)	XMDL (mg/Kg)
Halogens, Extractable Organic		200	32

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9095B RL Date: 01/27/2010 11:35

Analyte	Wavelength/ Mass	RL (NONE)	
Free Liquid		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9095B XRL Date: 01/27/2010 11:36

Analyte	Wavelength/ Mass	XRL (NONE)	
Free Liquid		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9071B MDL Date: 01/23/2014 14:09

Prep Method: 9071B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
HEM		100	57

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 240-59150-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9071B XMDL Date: 01/26/2012 13:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
HEM		4	1.4

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Prep Method: 9023

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-211224/3-A	12/17/2015 06:55	211224	2.03		10
LCS 240-211224/4-A	12/17/2015 06:57	211224	2.00		10
460-106284-B-1-B MS	12/17/2015 07:02	211224	2.01		10
460-106284-B-1-C MSD	12/17/2015 07:04	211224	2.01		10
240-59150-1	12/17/2015 07:19	211224	2.00		10

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Prep Method: 9071B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 490-307906/1-A	12/20/2015 13:07	307906	10		10
LCS 490-307906/2-A	12/20/2015 13:07	307906	10		10
LCSD 490-307906/3-A	12/20/2015 13:07	307906	10		10
240-59150-1	12/20/2015 13:07	307906	10.29		10
240-59150-1 MS	12/20/2015 13:07	307906	10.58		10
240-59150-1 DU	12/20/2015 13:07	307906	10.43		10

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: BRIAN Method: 9023

Start Date: 12/17/2015 07:54 End Date: 12/17/2015 12:55

Lab Sample ID	D / F	Type	Time	Analytes																			
				EOH																			
ZZZZZZ			07:54																				
ZZZZZZ			08:08																				
ZZZZZZ			08:21																				
ZZZZZZ			08:53																				
ZZZZZZ			09:07																				
CCV 240-211224/1-A	1		09:20	X																			
CCB 240-211224/2-A	1		09:31	X																			
MB 240-211224/3-A	1	T	09:37	X																			
LCS 240-211224/4-A	1	T	09:50	X																			
ZZZZZZ			09:57																				
460-106284-B-1-B MS	1	T	10:09	X																			
460-106284-B-1-C MSD	1	T	10:22	X																			
ZZZZZZ			10:32																				
ZZZZZZ			10:49																				
ZZZZZZ			11:08																				
CCV 240-211224/1-A	1		11:21	X																			
CCB 240-211224/2-A	1		11:35	X																			
ZZZZZZ			11:46																				
ZZZZZZ			11:59																				
ZZZZZZ			12:15																				
240-59150-1	1	T	12:34	X																			
CCV 240-211224/1-A	1		12:48	X																			
CCB 240-211224/2-A	1		12:55	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: NOEQUIP Method: 9095B

Start Date: 12/22/2015 06:30 End Date: 12/22/2015 06:46

Lab Sample ID	D / F	Type	Time	Analytes																			
				PF																			
240-58903-A-2 DU	1	T	06:30	X																			
ZZZZZZ			06:32																				
ZZZZZZ			06:34																				
ZZZZZZ			06:37																				
ZZZZZZ			06:39																				
ZZZZZZ			06:41																				
ZZZZZZ			06:44																				
240-59150-1	1	T	06:46	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 12/16/2015 09:38 End Date: 12/16/2015 17:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			09:38																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 12/16/2015 09:38 End Date: 12/16/2015 17:08

Lab Sample ID	D/F	Type	Time	Analytes																				
				%Sol	Moist																			
ZZZZZZ			14:22																					
ZZZZZZ			14:30																					
ZZZZZZ			14:30																					
ZZZZZZ			14:30																					
ZZZZZZ			14:30																					
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240-59182-A-12 DU	1	T	16:21	X	X																			
ZZZZZZ			16:21																					
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ZZZZZZ			16:21																					
ZZZZZZ			16:21																					
240-59150-1	1	T	16:21	X	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 12/16/2015 09:38 End Date: 12/16/2015 17:08

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			16:21																					
ZZZZZZ			16:21																					
ZZZZZZ			16:21																					
ZZZZZZ			16:21																					
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ZZZZZZ			17:08																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Instrument ID: NOEQUIP Method: 9071B

Start Date: 12/20/2015 13:07 End Date: 12/20/2015 13:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				HEM																			
MB 490-307906/1-A	1	T	13:07	X																			
LCS 490-307906/2-A	1	T	13:07	X																			
LCSD 490-307906/3-A	1	T	13:07	X																			
ZZZZZZ			13:07																				
240-59150-1	1	T	13:07	X																			
240-59150-1 MS	1	T	13:07	X																			
240-59150-1 DU	1	T	13:07	X																			
ZZZZZZ			13:07																				
ZZZZZZ			13:08																				

Prep Types
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211224 Batch Start Date: 12/17/15 06:51 Batch Analyst: Harshman, Tom

Batch Method: 9023 Batch End Date: 12/17/15 07:22

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EOX CCV 00192	EOX LCS 00364		
CCV 240-211224/1-A		9023, 9023		2.00 g	10 mL	2 mL			
CCB 240-211224/2-A		9023, 9023		2.00 g	10 mL				
MB 240-211224/3-A		9023, 9023		2.03 g	10 mL				
LCS 240-211224/4-A		9023, 9023		2.00 g	10 mL		2 mL		
460-106284-B-1-B MS		9023, 9023	T	2.01 g	10 mL		2 mL		
460-106284-B-1-C MSD		9023, 9023	T	2.01 g	10 mL		2 mL		
240-59150-1	D-SD-WC-1	9023, 9023	T	2.00 g	10 mL				

Batch Notes	
Acetic Acid Reagent ID	2260485
Batch Comment	balance B043
Ethyl Acetate Lot Number	2018370
Ottawa Sand Lot #	2334134

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211352 Batch Start Date: 12/17/15 07:54 Batch Analyst: Harshman, Tom

Batch Method: 9023 Batch End Date: 12/17/15 12:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TopCol1	CalcMsg		
CCV 240-211224/1-A		9023		30 uL	30 uL	6.2454 ug	OK		
CCB 240-211224/2-A		9023		30 uL	30 uL	0.0534 ug	OK		
MB 240-211224/3-A		9023		30 uL	30 uL	0.0477 ug	OK		
LCS 240-211224/4-A		9023		30 uL	30 uL	6.0426 ug	OK		
460-106284-B-1-B MS		9023	T	30 uL	30 uL	5.9946 ug	OK		
460-106284-B-1-C MSD		9023	T	30 uL	30 uL	6.2415 ug	OK		
CCV 240-211224/1-A		9023		30 uL	30 uL	6.1878 ug	OK		
CCB 240-211224/2-A		9023		30 uL	30 uL	0.1698 ug	OK		
240-59150-1	D-SD-WC-1	9023	T	30 uL	30 uL	-0.0222 ug	OK		
CCV 240-211224/1-A		9023		30 uL	30 uL	6.1248 ug	OK		
CCB 240-211224/2-A		9023		30 uL	30 uL	0.0312 ug	OK		

Batch Notes	
Average Nitric Wash Blank	0.0469 ug
Nominal Amount Used	30 uL
Perform Calculation (0=No, 1=Yes)	1

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211879 Batch Start Date: 12/22/15 06:30 Batch Analyst: Harshman, Tom

Batch Method: 9095B Batch End Date: 12/22/15 06:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
240-58903-A-2 DU		9095B	T	100 g					
240-59150-1	D-SD-WC-1	9095B	T	100 g					

Batch Notes	
Filter Lot #	2025219

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-59150-1

SDG No.:

Batch Number: 211066 Batch Start Date: 12/16/15 09:38 Batch Analyst: Woodward, Bruce

Batch Method: Moisture Batch End Date: 12/17/15 08:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-59182-A-12 DU		Moisture	T	4.3859 g	6.9250 g	6.8811 g			
240-59150-1	D-SD-WC-1	Moisture	T	4.3859 g	19.3025 g	15.6288 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	12/16/15
Oven Temp when samples are put in oven	103 Degrees C
Time samples were place in the oven	17:25
Oven ID	002
ID number of the thermometer	TempGuard Box-C #6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Batch Number: 307906 Batch Start Date: 12/20/15 13:07 Batch Analyst: Jackson, Laterio O

Batch Method: 9071B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	op_cell thim 00001	OP_HEM_spike 00003	OP_NaSO4 00046	AnalysisComment
MB 490-307906/1-A		9071B, 9071B		10 g	10 mL	1 mL		10 g	4072969
LCS 490-307906/2-A		9071B, 9071B		10 g	10 mL	1 mL	4 mL	10 g	4072969
LCSD 490-307906/3-A		9071B, 9071B		10 g	10 mL	1 mL	4 mL	10 g	4072969
240-59150-1	D-SD-WC-1	9071B, 9071B	T	10.29 g	10 mL	1 mL		10 g	4072969
240-59150-1 MS	D-SD-WC-1	9071B, 9071B	T	10.58 g	10 mL	1 mL	4 mL	10 g	4072969
240-59150-1 DU	D-SD-WC-1	9071B, 9071B	T	10.43 g	10 mL	1 mL		10 g	4072970

Batch Notes	
Balance ID	B2-1118381704

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Batch Number: 307909 Batch Start Date: 12/20/15 14:28 Batch Analyst: Jackson, Laterio O

Batch Method: 9071B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	ReceiverTube	HEMWgt1	HEMWgt2	Weight2OK	Residue
MB 490-307906/1-A		9071B		10 mL	2.4793 g	2.4797 g	2.4796 g	Pass 0.0005g	0.0004 g
LCS 490-307906/2-A		9071B		10 mL	2.4690 g	2.5032 g	2.5032 g	Pass 0.0005g	0.0342 g
LCSD 490-307906/3-A		9071B		10 mL	2.4752 g	2.5125 g	2.5121 g	Pass 0.0005g	0.0373 g
240-59150-1	D-SD-WC-1	9071B	T	10 mL	2.5244 g	2.5251 g	2.5250 g	Pass 0.0005g	0.0007 g
240-59150-1 MS	D-SD-WC-1	9071B	T	10 mL	2.4719 g	2.5086 g	2.5084 g	Pass 0.0005g	0.0367 g
240-59150-1 DU	D-SD-WC-1	9071B	T	10 mL	2.4794 g	2.4801 g	2.4800 g	Pass 0.0005g	0.0007 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue2	SGTRecTube	SGTWgt1	SGTWgt2	SGTWeightOne%Diff	SGTResidue1
MB 490-307906/1-A		9071B		0.0003 g	2.4793 g	2.4793 g	2.4793 g	Pass 0.0005g	0 g
LCS 490-307906/2-A		9071B		0.0342 g	2.4690 g	2.4838 g	2.4837 g	Pass 0.0005g	0.0148 g
LCSD 490-307906/3-A		9071B		0.0369 g	2.4752 g	2.4898 g	2.4898 g	Pass 0.0005g	0.0146 g
240-59150-1	D-SD-WC-1	9071B	T	0.0006 g	2.5244 g	2.5254 g	2.5254 g	Pass 0.0005g	0.001 g
240-59150-1 MS	D-SD-WC-1	9071B	T	0.0365 g	2.4719 g	2.4833 g	2.4833 g	Pass 0.0005g	0.0114 g
240-59150-1 DU	D-SD-WC-1	9071B	T	0.0006 g	2.4794 g	2.4796 g	2.4796 g	Pass 0.0005g	0.0002 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	SGTResidue2	CalcMsg	O&G_SilicaGel 00001	AnalysisComment		
MB 490-307906/1-A		9071B		0 g	OK	3 g	4072969		
LCS 490-307906/2-A		9071B		0.0147 g	OK	3 g	4072969		
LCSD 490-307906/3-A		9071B		0.0146 g	OK	3 g	4072969		
240-59150-1	D-SD-WC-1	9071B	T	0.001 g	OK	3 g	4072969		
240-59150-1 MS	D-SD-WC-1	9071B	T	0.0114 g	OK	3 g	4072969		
240-59150-1 DU	D-SD-WC-1	9071B	T	0.0002 g	OK	3 g	4072970		

Batch Notes	
Balance ID	AG204-1122173241

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 240-59150-1

SDG No.:

Batch Number: 307909 Batch Start Date: 12/20/15 14:28 Batch Analyst: Jackson, Laterio O

Batch Method: 9071B Batch End Date:

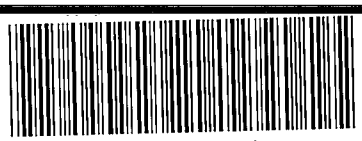
Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



240-59150 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

3,4/C3,1

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Pryon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-31892-14006.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): 7 day TAT			
State, Zip: MD, 20874				
Phone: 301-233-8230(Tel)	PO #: ~~1104370~~			
Email: Tony.Apanavage@tetratech.com	WO #: ~~112IC06183~~			
Project Name: ~~MSA Surface Water~~ MRC	Project #: ~~24006132~~			
Site: Block D Waste Characterization	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, C=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~8260B (ABS, Project VOCs~~ + GRO	TPH D+G	DRO, TOX/EOX, ARSENIC, PCBs	TCLP Org/inorg	Total Number of Containers	Special Instructions/Note:
			Preservation Code:		X	X	A					
TB-121515	12-15-15	—	G	Water			X					
D-SD-WC-1	↓	1400	C	~~Water~~ Soil			X	X	X	X		
				~~Water~~ ~~Soil~~								
				~~Water~~ ~~Soil~~								
				~~Water~~ ~~Soil~~								
				~~Water~~								
				~~Water~~								
				~~Water~~								
Soil Waste Characterization				~~Water~~								
Sample from Block D				~~Water~~								
				~~Water~~								

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pryon	12-15-15 / 1600	TT Inc	[signature]	12/15/15 / 1600	TestAmerica
[signature]	12/15/15 / 1710	TA	[signature]	12/16/15 930	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 50150

Client Tetra tech Site Name

Cooler unpacked by:

Cooler Received on 12-16-15 Opened on 12-16-15

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box ~~Client Cooler~~ Box Other

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.1 °C ☐ See Multiple Cooler Form

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 ~~Yes~~ No
   -Were custody seals on the outside of the cooler(s) signed & dated? ~~Yes~~ No NA
   -~~Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?~~ Yes ~~No~~
3. Shippers' packing slip attached to the cooler(s)? ~~Yes~~ No
4. Did custody papers accompany the sample(s)? ~~Yes~~ No
5. Were the custody papers relinquished & signed in the appropriate place? ~~Yes~~ No
6. Was/were the person(s) who collected the samples clearly identified on the COC? ~~Yes~~ No
7. Did all bottles arrive in good condition (Unbroken)? ~~Yes~~ No
8. Could all bottle labels be reconciled with the COC? ~~Yes~~ No
9. Were correct bottle(s) used for the test(s) indicated? ~~Yes~~ No
10. Sufficient quantity received to perform indicated analyses? ~~Yes~~ No
11. Were sample(s) at the correct pH upon receipt? ~~Yes~~ No NA pH Strip Lot# HC559158
12. Were VOAs on the COC? ~~Yes~~ No
13. Were air bubbles >6 mm in any VOA vials? Yes ~~No~~ NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ~~Yes~~ No
15. Was a LL Hg or Me Hg trip blank present? Yes ~~No~~

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

TB logged with Water Samples

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

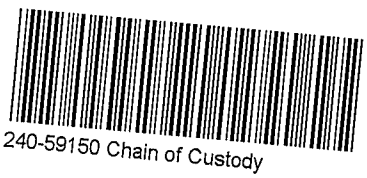
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS



4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

1.6/C1.3

Chain of Custody Record

016112

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: Tetra Tech Inc	Project Manager: Scott Nesbit	Site Contact: Walt Payon	Date: 12-17-15
Address: 20251 Century Blvd	Tel/Fax: 412-921-7090	Lab Contact: John McFadden	Carrier: Fed Ex
City/State/Zip: Germantown, MD 20874	Analysis Turnaround Time		
Phone: 301 528-3021	☐ CALENDAR DAYS ☒ WORKING DAYS		
Fax: 3000	TAT if different from Below ____		
Project Name: MRC	☐ 2 weeks		
Site: Block D WC Sampling	☐ 1 week		
PO#	☐ 2 days		
	☐ 1 day		

3 day TAT

COC No: 1 of 1 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs + GRO	TPH O+G	Dro, TOX/EOX Arsenic	PCBs, TCLP Org/Inog	Sample Specific Notes:
D-SD-WC-1	12-17-15	1340	C	Soil	3			X	X	X	X	* Extra Volume *

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
Soil Waste Characterization Extra Volume Block D Sampling

Custody Seals Intact: ☐ Yes ☐ No. Custody Seal No.: Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TT INC	12-17-15/1420	[signature]	TestAmerica	12/17/15 /1420
[signature]	TestAmerica	12/17/15/1620	[signature]	TA	12-18-15 1000
			Received in Laboratory by:		

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 59150

Client TetraTech Site Name

Cooler unpacked by:

Cooler Received on 12.18.15 Opened on 12-18-15

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. 1.6 °C Corrected Cooler Temp. 1.3 °C ☐ See Multiple Cooler Form

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes (No)
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC559158
12. Were VOAs on the COC? Yes (No)
13. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Yes (No)
15. Was a LL Hg or Me Hg trip blank present? Yes (No)

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

Extra Volume for 240-59150

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-52328.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc				Job #: 240-59150-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 12/23/2015			
City: Nashville	TAT Requested (days):			
State, Zip: TN, 37204				
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:			
Email:	WO #:			
Project Name: LM MRC Waste Characterization 2014	Project #: 24012205			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9071B/9071B_P_Sox Oil & Grease (HEM)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
D-SD-WC-1 (240-59150-1)	12/15/15	14:00 Eastern		Solid			X	1	

Possible Hazard Identification	**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		12/15/15 1600			4.4 12-18-15 1000	TAN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Loc: 240
59150

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 12/18/2015 @ 10:30

Time Samples Removed From Cooler 12:31 Time Samples Placed In Storage 14:16 (2 Hour Window)

1. Tracking # 7311 (last 4 digits, FedEx) Courier: _FedEx_

IR Gun ID 17610176 pH Strip Lot HC554612 Chlorine Strip Lot 072815A

2. Temperature of rep. sample or temp blank when opened: 4.4 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: _____

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? ~~Bubblewrap~~ Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: ~~Ice~~ Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? ~~YES~~...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? ~~YES~~...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# _____

BIS = Broken in shipment

VALIDATION REPORTS

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **SEPTEMBER 3, 2015**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/ PAH/ PCB/ MISC**
MRC SOIL REMEDY, BLOCK D AREA F
SAMPLE DELIVERY GROUP (SDG) – 240-54724-1

SAMPLES: 2/Aqueous/ VOC

TB-082515 WC-DFRAC-082515

17/Soil/PAH

D-DUP07-082515	D-VB-D-1-2	D-VB-D-2-2	D-VB-F-1-2	D-VB-F-2-2
D-VB-F-3-2	D-VB-F-4-2	D-VB-F-5-2	D-VB-F-7-2	D-VB-F-8-2
D-VB-F-9-2	D-VS-D-1-1	D-VS-D-2-1	D-VS-D-3-1	D-VS-D-4-1
D-VS-F-1-1	D-VS-F-2-1			

1/Aqueous/PCB/Flashpoint

WC-DFRAC-082515

Overview

The sample set for MRC Soil Remedy- Block D Area F, SDG 240-54724-1 consists of seventeen (17) soil environmental samples, one (1) aqueous sample and a trip blank. The aqueous sample and trip blank were analyzed for volatile organic compounds (VOCs). The seventeen (17) soil environmental samples were analyzed for polyaromatic hydrocarbons (PAHs). One (1) aqueous sample was analyzed for polychlorinated biphenyls (PCBs) and flashpoint. There is one (1) field duplicate pair included in this SDG: D-DUP07-082515 and D-VB-D-2-2.

The samples were collected by Tetra Tech on August 25, 2015 and analyzed by Test America Laboratories, Inc. Analyses were conducted in accordance to SW-846 Method 8260C, 8270D, 8082 and 1010 analytical and reporting protocol.

Summary

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial / continuing calibrations, laboratory method blank results, surrogate spike/internal standard recoveries, laboratory control sample results, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

Major Problems

- The matrix spike duplicate (MSD) percent recovery (%R) of 2-chloroethyl vinyl ether was 0% in spiked sample WC-DFRAC-082515. The samples were preserved in acid for analysis. The analyte 2-chloroethyl vinyl ether is unstable in this environment and not reliably recovered. The nondetected 2-chloroethyl vinyl ether results were qualified as rejected (UR).

Minor Problems

- Contamination was detected in the laboratory method blank associated with batch 195083.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
2-butanone	1.94	19.4
Acetone	9.12	91.2

  An action level of 10X the maximum concentration of common laboratory contaminants, acetone and 2-butanone, was established in order to evaluate the sample for blank contamination. Sample dilution factors were taken into account when applying the action level. Detected results less than the action level were qualified as (U).

- The continuing calibration percent differences (%Ds) for acetone and naphthalene were greater than the 20% quality control limit on August 27, 2015 @ 10:26 on instrument A3UX11.The detected and nondetected results of the aforementioned analytes were qualified as estimated (J) and (UJ), respectively.

- Field duplicate imprecision was noted in the field duplicate pair D-DUP07-082515 and D-VB-D-2-2. The relative percent differences (RPDs) for fluoranthene, phenanthrene and pyrene exceeded the 50% quality control limit. The detected fluoranthene, phenanthrene and pyrene results were qualified as estimated (J). The variances for the remaining PAHs except naphthalene were greater than 2X the reporting limit. The detected and nondetected results of these analytes were qualified as estimated (J) and (UJ), respectively.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Notes

The following samples were diluted for analysis of PAHs; D-VB-F-1-2 (2X) and D-VB-D-2-2 (4X).

Nondetected results were reported to the method detection limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Acetone and 2-butanone were detected in the laboratory method blank. The continuing calibration %Ds for acetone and naphthalene were greater than the 20% quality control limit.

Other Factors Affecting Data Quality: The MSD %R of 2-chloroethyl vinyl ether was 0% in spiked sample WC-DFRAC-082515. Field duplicate imprecision was noted for all PAHS except naphthalene in the field duplicate pair D-DUP07-082515 and D-VB-D-2-2. Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 07483	NSAMPLE	WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-11		
FRACTION: MISC	SAMP_DATE	8/25/2015		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	F		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
FLASHPOINT		200	>	

PROJ_NO: 07483	NSAMPLE	TB-082515			WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-12			240-54724-11		
FRACTION: OV	SAMP_DATE	8/25/2015			8/25/2015		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.28	U		0.28	U	
1,1,1-TRICHLOROETHANE		0.44	U		0.44	U	
1,1,2,2-TETRACHLOROETHANE		0.22	U		0.22	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.45	U		0.45	U	
1,1-DICHLOROETHANE		0.3	U		0.3	U	
1,1-DICHLOROETHENE		0.45	U		0.45	U	
1,1-DICHLOROPROPENE		0.42	U		0.42	U	
1,2,3-TRICHLOROBENZENE		0.37	U		0.37	U	
1,2,3-TRICHLOROPROPANE		0.44	U		0.44	U	
1,2,3-TRIMETHYLBENZENE		0.47	U		0.47	U	
1,2,4-TRICHLOROBENZENE		0.32	U		0.32	U	
1,2,4-TRIMETHYLBENZENE		0.41	U		0.41	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.82	U		0.82	U	
1,2-DIBROMOETHANE		0.32	U		0.32	U	
1,2-DICHLOROBENZENE		0.25	U		0.25	U	
1,2-DICHLOROETHANE		0.23	U		0.23	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.19	U		0.19	U	
1,3-DICHLOROPROPANE		0.19	U		0.19	U	
1,4-DICHLOROBENZENE		0.27	U		0.27	U	
2,2-DICHLOROPROPANE		0.26	U		0.26	U	
2-BUTANONE		0.53	U		1.1	U	A
2-CHLOROETHYL VINYL ETHER		0.59	UR	Q	0.59	UR	D
2-CHLOROTOLUENE		0.4	U		0.4	U	
2-HEXANONE		0.48	U		0.48	U	
4-CHLOROTOLUENE		0.29	U		0.29	U	
4-ISOPROPYLTOLUENE		0.43	U		0.43	U	
4-METHYL-2-PENTANONE		0.99	U		0.99	U	
ACETONE		0.94	UJ	C	6.2	U	A
BENZENE		0.35	U		0.35	U	
BROMOBENZENE		0.35	U		0.35	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.29	U		0.29	U	
BROMOFORM		0.56	U		0.56	U	
BROMOMETHANE		0.44	U		0.44	U	

PROJ_NO: 07483	NSAMPLE	TB-082515			WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-12			240-54724-11		
FRACTION: OV	SAMP_DATE	8/25/2015			8/25/2015		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.38	U		0.38	U	
CARBON TETRACHLORIDE		0.43	U		0.43	U	
CHLOROBENZENE		0.25	U		0.25	U	
CHLORODIBROMOMETHANE		0.43	U		0.43	U	
CHLOROETHANE		0.32	U		0.32	U	
CHLOROFORM		0.25	U		0.25	U	
CHLOROMETHANE		0.44	U		0.82	J	P
CIS-1,2-DICHLOROETHENE		0.26	U		0.26	U	
CIS-1,3-DICHLOROPROPENE		0.46	U		0.46	U	
DIBROMOMETHANE		0.42	U		0.42	U	
DICHLORODIFLUOROMETHANE		0.32	U		0.32	U	
DIISOPROPYL ETHER		0.5	U		0.5	U	
ETHYL TERT-BUTYL ETHER		0.23	U		0.23	U	
ETHYLBENZENE		0.25	U		0.25	U	
HEXACHLOROBUTADIENE		0.35	U		0.35	U	
ISOPROPYLBENZENE		0.35	U		0.35	U	
M+P-XYLENES		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.2	U		0.2	U	
METHYLENE CHLORIDE		0.33	U		0.33	U	
NAPHTHALENE		0.45	UJ	C	0.72	J	CP
N-BUTYLBENZENE		0.31	U		0.31	U	
N-PROPYLBENZENE		0.4	U		0.4	U	
O-XYLENE		0.25	U		0.25	U	
SEC-BUTYLBENZENE		0.48	U		0.48	U	
STYRENE		0.45	U		0.45	U	
TERT-AMYL METHYL ETHER		0.3	U		0.3	U	
TERT-BUTYLBENZENE		0.41	U		0.41	U	
TERTIARY-BUTYL ALCOHOL		4.9	U		4.9	U	
TETRACHLOROETHENE		0.31	U		0.31	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		0.52	U		0.52	U	
TRANS-1,2-DICHLOROETHENE		0.3	U		0.3	U	
TRANS-1,3-DICHLOROPROPENE		0.56	U		0.56	U	
TRICHLOROETHENE		0.22	U		0.22	U	
TRICHLOROFLUOROMETHANE		0.49	U		0.49	U	

PROJ_NO: 07483	NSAMPLE	TB-082515			WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-12			240-54724-11		
FRACTION: OV	SAMP_DATE	8/25/2015			8/25/2015		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.41	U		0.41	U	
VINYL CHLORIDE		0.29	U		0.29	U	

PROJ_NO: 07483	NSAMPLE	D-DUP07-082515			D-VB-D-1-2			D-VB-D-2-2			D-VB-F-1-2		
SDG: 240-54724-1	LAB_ID	240-54724-19			240-54724-17			240-54724-18			240-54724-1		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.3			81.4			85.6			86.4		
	DUP_OF	D-VB-D-2-2											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		5.5	J	GP	0.93	U		86	J	G	200		
ACENAPHTHYLENE		0.43	UJ	G	0.43	U		82	J	G	0.81	U	
ANTHRACENE		13	J	G	0.95	U		610	J	G	260		
BENZO(A)ANTHRACENE		28	J	G	9.3			2300	J	G	760		
BENZO(A)PYRENE		23	J	G	9.8			1700	J	G	760		
BENZO(B)FLUORANTHENE		30	J	G	16			2200	J	G	1000		
BENZO(G,H,I)PERYLENE		15	J	G	9.8			1100	J	G	500		
BENZO(K)FLUORANTHENE		17	J	G	4.8	J	P	1000	J	G	430		
CHRYSENE		31	J	G	12			2100	J	G	840		
DIBENZO(A,H)ANTHRACENE		0.81	UJ	G	0.8	U		290	J	G	120		
FLUORANTHENE		72	J	G	17			4200	J	G	1700		
FLUORENE		5.9	J	GP	0.65	U		150	J	G	120		
INDENO(1,2,3-CD)PYRENE		12	J	G	6.5	J	P	950	J	G	430		
NAPHTHALENE		7.3	J	P	13			23	J	P	100		
PHENANTHRENE		55	J	G	15			2300	J	G	1000		
PYRENE		60	J	G	15			3700	J	G	1500		

PROJ_NO: 07483	NSAMPLE	D-VB-F-2-2			D-VB-F-3-2			D-VB-F-4-2			D-VB-F-5-2		
SDG: 240-54724-1	LAB_ID	240-54724-2			240-54724-3			240-54724-4			240-54724-5		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.4			85.9			82.5			84.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		27			0.88	U		0.92	U		0.89	U	
ACENAPHTHYLENE		6.1	J	P	0.4	U		0.42	U		0.41	U	
ANTHRACENE		57			4.2	J	P	0.95	U		4.5	J	P
BENZO(A)ANTHRACENE		150			14			0.76	U		22		
BENZO(A)PYRENE		160			13			0.78	U		25		
BENZO(B)FLUORANTHENE		200			17			0.72	U		39		
BENZO(G,H,I)PERYLENE		110			9			0.42	U		19		
BENZO(K)FLUORANTHENE		83			8			0.82	U		14		
CHRYSENE		160			17			1.3	U		32		
DIBENZO(A,H)ANTHRACENE		33			0.76	U		0.8	U		0.77	U	
FLUORANTHENE		270			35			0.67	U		41		
FLUORENE		23			0.61	U		0.64	U		0.62	U	
INDENO(1,2,3-CD)PYRENE		97			7.6	J	P	0.42	U		16		
NAPHTHALENE		13			0.95	U		6.9	J	P	9.1		
PHENANTHRENE		190			17			0.89	U		15		
PYRENE		240			33			0.53	U		38		

PROJ_NO: 07483	NSAMPLE	D-VB-F-7-2			D-VB-F-8-2			D-VB-F-9-2			D-VS-D-1-1		
SDG: 240-54724-1	LAB_ID	240-54724-6			240-54724-7			240-54724-8			240-54724-13		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.9			85.5			83.6			84.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.85	U		9.2			0.9	U		71		
ACENAPHTHYLENE		0.39	U		4.4	J	P	0.41	U		0.42	U	
ANTHRACENE		5.6	J	P	18			0.92	U		63		
BENZO(A)ANTHRACENE		25			54			0.75	U		53		
BENZO(A)PYRENE		30			62			0.76	U		50		
BENZO(B)FLUORANTHENE		37			78			0.7	U		71		
BENZO(G,H,I)PERYLENE		26			39			0.41	U		32		
BENZO(K)FLUORANTHENE		15			36			0.81	U		19		
CHRYSENE		26			67			1.3	U		56		
DIBENZO(A,H)ANTHRACENE		5.7	J	P	12			0.78	U		8.7		
FLUORANTHENE		36			110			0.65	U		150		
FLUORENE		0.6	U		8.5			0.63	U		71		
INDENO(1,2,3-CD)PYRENE		18			35			0.41	U		27		
NAPHTHALENE		8.4			49			0.97	U		190		
PHENANTHRENE		19			67			0.86	U		270		
PYRENE		34			92			0.52	U		120		

PROJ_NO: 07483	NSAMPLE	D-VS-D-2-1			D-VS-D-3-1			D-VS-D-4-1			D-VS-F-1-1		
SDG: 240-54724-1	LAB_ID	240-54724-14			240-54724-15			240-54724-16			240-54724-9		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.6			78.4			85.6			81.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		11			92			15			7.5	J	P
ACENAPHTHYLENE		0.42	U		0.45	U		0.41	U		6.2	J	P
ANTHRACENE		7.6	J	P	31			4.5	J	P	21		
BENZO(A)ANTHRACENE		4.6	J	P	21			14			100		
BENZO(A)PYRENE		0.77	U		18			13			110		
BENZO(B)FLUORANTHENE		5.9	J	P	24			15			150		
BENZO(G,H,I)PERYLENE		0.42	U		11			11			83		
BENZO(K)FLUORANTHENE		0.81	U		8.8			7.8			56		
CHRYSENE		5.5	J	P	23			14			110		
DIBENZO(A,H)ANTHRACENE		0.79	U		0.84	U		0.77	U		21		
FLUORANTHENE		16			81			22			160		
FLUORENE		10			96			14			6.8	J	P
INDENO(1,2,3-CD)PYRENE		0.42	U		11			7.2	J	P	71		
NAPHTHALENE		29			150			43			10		
PHENANTHRENE		40			200			31			79		
PYRENE		14			64			20			150		

PROJ_NO: 07483	NSAMPLE	D-VS-F-2-1		
SDG: 240-54724-1	LAB_ID	240-54724-10		
FRACTION: PAH	SAMP_DATE	8/25/2015		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	86.7		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U	
ACENAPHTHYLENE		0.41	U	
ANTHRACENE		0.9	U	
BENZO(A)ANTHRACENE		10		
BENZO(A)PYRENE		9.6		
BENZO(B)FLUORANTHENE		19		
BENZO(G,H,I)PERYLENE		17		
BENZO(K)FLUORANTHENE		6.8	J	P
CHRYSENE		13		
DIBENZO(A,H)ANTHRACENE		0.76	U	
FLUORANTHENE		15		
FLUORENE		0.61	U	
INDENO(1,2,3-CD)PYRENE		12		
NAPHTHALENE		13		
PHENANTHRENE		6.4	J	P
PYRENE		14		

PROJ_NO: 07483	NSAMPLE	WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-11		
FRACTION: PCB	SAMP_DATE	8/25/2015		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.22	U	
AROCLOR-1221		0.16	U	
AROCLOR-1232		0.2	U	
AROCLOR-1242		0.28	U	
AROCLOR-1248		0.13	U	
AROCLOR-1254		0.2	U	
AROCLOR-1260		0.22	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.1	J B	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U F1	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	6.2	J B	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.82	J	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.72	J	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		79-120
460-00-4	4-Bromofluorobenzene (Surr)	101		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		78-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	0.53	U	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	0.94	U	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.45	U	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		79-120
460-00-4	4-Bromofluorobenzene (Surr)	102		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		78-125

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-1-2 | Lab Sample ID: 240-54724-1

Matrix: Solid | Lab File ID: 50829022.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:30

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.94(g) | Date Analyzed: 08/29/2015 17:47

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	200		15	1.8
208-96-8	Acenaphthylene	0.81	U	15	0.81
120-12-7	Anthracene	260		15	1.8
56-55-3	Benzo[a]anthracene	760		15	1.5
50-32-8	Benzo[a]pyrene	760		15	1.5
205-99-2	Benzo[b]fluoranthene	1000		15	1.4
191-24-2	Benzo[g,h,i]perylene	500		15	0.81
207-08-9	Benzo[k]fluoranthene	430		15	1.6
218-01-9	Chrysene	840		15	2.6
53-70-3	Dibenz(a,h)anthracene	120		15	1.5
206-44-0	Fluoranthene	1700		15	1.3
86-73-7	Fluorene	120		15	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	430		15	0.81
91-20-3	Naphthalene	100		15	1.9
85-01-8	Phenanthrene	1000		15	1.7
129-00-0	Pyrene	1500		15	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-2-2 | Lab Sample ID: 240-54724-2

Matrix: Solid | Lab File ID: 50829023.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:32

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.40(g) | Date Analyzed: 08/29/2015 18:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	27		7.4	0.85
208-96-8	Acenaphthylene	6.1	J	7.4	0.39
120-12-7	Anthracene	57		7.4	0.87
56-55-3	Benzo[a]anthracene	150		7.4	0.70
50-32-8	Benzo[a]pyrene	160		7.4	0.71
205-99-2	Benzo[b]fluoranthene	200		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	110		7.4	0.39
207-08-9	Benzo[k]fluoranthene	83		7.4	0.76
218-01-9	Chrysene	160		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	33		7.4	0.74
206-44-0	Fluoranthene	270		7.4	0.61
86-73-7	Fluorene	23		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	97		7.4	0.39
91-20-3	Naphthalene	13		7.4	0.92
85-01-8	Phenanthrene	190		7.4	0.82
129-00-0	Pyrene	240		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	72		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-3-2 | Lab Sample ID: 240-54724-3

Matrix: Solid | Lab File ID: 50829019.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:34

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.22(g) | Date Analyzed: 08/29/2015 16:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	4.2	J	7.7	0.90
56-55-3	Benzo[a]anthracene	14		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	17		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	9.0		7.7	0.40
207-08-9	Benzo[k]fluoranthene	8.0		7.7	0.79
218-01-9	Chrysene	17		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	35		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	7.6	J	7.7	0.40
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	17		7.7	0.84
129-00-0	Pyrene	33		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-4-2 | Lab Sample ID: 240-54724-4

Matrix: Solid | Lab File ID: 50829020.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:36

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.00(g) | Date Analyzed: 08/29/2015 16:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.1	0.92
208-96-8	Acenaphthylene	0.42	U	8.1	0.42
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	0.76	U	8.1	0.76
50-32-8	Benzo[a]pyrene	0.78	U	8.1	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.1	0.72
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.1	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.1	0.82
218-01-9	Chrysene	1.3	U	8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	0.67	U	8.1	0.67
86-73-7	Fluorene	0.64	U	8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.1	0.42
91-20-3	Naphthalene	6.9	J	8.1	0.99
85-01-8	Phenanthrene	0.89	U	8.1	0.89
129-00-0	Pyrene	0.53	U	8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	34		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-5-2 | Lab Sample ID: 240-54724-5

Matrix: Solid | Lab File ID: 50829024.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:38

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.28(g) | Date Analyzed: 08/29/2015 18:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.5	J	7.8	0.91
56-55-3	Benzo[a]anthracene	22		7.8	0.74
50-32-8	Benzo[a]pyrene	25		7.8	0.75
205-99-2	Benzo[b]fluoranthene	39		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	19		7.8	0.41
207-08-9	Benzo[k]fluoranthene	14		7.8	0.80
218-01-9	Chrysene	32		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	41		7.8	0.65
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	16		7.8	0.41
91-20-3	Naphthalene	9.1		7.8	0.96
85-01-8	Phenanthrene	15		7.8	0.86
129-00-0	Pyrene	38		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-7-2 | Lab Sample ID: 240-54724-6

Matrix: Solid | Lab File ID: 50829025.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:40

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.40(g) | Date Analyzed: 08/29/2015 19:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	5.6	J	7.5	0.88
56-55-3	Benzo[a]anthracene	25		7.5	0.71
50-32-8	Benzo[a]pyrene	30		7.5	0.72
205-99-2	Benzo[b]fluoranthene	37		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	26		7.5	0.39
207-08-9	Benzo[k]fluoranthene	15		7.5	0.76
218-01-9	Chrysene	26		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	5.7	J	7.5	0.74
206-44-0	Fluoranthene	36		7.5	0.62
86-73-7	Fluorene	0.60	U	7.5	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	18		7.5	0.39
91-20-3	Naphthalene	8.4		7.5	0.92
85-01-8	Phenanthrene	19		7.5	0.82
129-00-0	Pyrene	34		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		36-110
4165-62-2	Phenol-d5 (Surr)	76		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	20		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-8-2 | Lab Sample ID: 240-54724-7

Matrix: Solid | Lab File ID: 50829026.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:42

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.98(g) | Date Analyzed: 08/29/2015 19:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.2		7.8	0.89
208-96-8	Acenaphthylene	4.4	J	7.8	0.41
120-12-7	Anthracene	18		7.8	0.91
56-55-3	Benzo[a]anthracene	54		7.8	0.74
50-32-8	Benzo[a]pyrene	62		7.8	0.75
205-99-2	Benzo[b]fluoranthene	78		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	39		7.8	0.41
207-08-9	Benzo[k]fluoranthene	36		7.8	0.80
218-01-9	Chrysene	67		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	12		7.8	0.77
206-44-0	Fluoranthene	110		7.8	0.64
86-73-7	Fluorene	8.5		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	35		7.8	0.41
91-20-3	Naphthalene	49		7.8	0.96
85-01-8	Phenanthrene	67		7.8	0.85
129-00-0	Pyrene	92		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-9-2 | Lab Sample ID: 240-54724-8

Matrix: Solid | Lab File ID: 50829015.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:44

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.31(g) | Date Analyzed: 08/29/2015 14:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	0.92	U	7.9	0.92
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.9	0.41
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	0.65	U	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.86	U	7.9	0.86
129-00-0	Pyrene	0.52	U	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	83		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	54		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-F-1-1 | Lab Sample ID: 240-54724-9

Matrix: Solid | Lab File ID: 50829027.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:46

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.09(g) | Date Analyzed: 08/29/2015 19:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.5	J	8.1	0.93
208-96-8	Acenaphthylene	6.2	J	8.1	0.43
120-12-7	Anthracene	21		8.1	0.95
56-55-3	Benzo[a]anthracene	100		8.1	0.77
50-32-8	Benzo[a]pyrene	110		8.1	0.78
205-99-2	Benzo[b]fluoranthene	150		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	83		8.1	0.43
207-08-9	Benzo[k]fluoranthene	56		8.1	0.83
218-01-9	Chrysene	110		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	21		8.1	0.80
206-44-0	Fluoranthene	160		8.1	0.67
86-73-7	Fluorene	6.8	J	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	71		8.1	0.43
91-20-3	Naphthalene	10		8.1	1.0
85-01-8	Phenanthrene	79		8.1	0.89
129-00-0	Pyrene	150		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	78		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-F-2-1 | Lab Sample ID: 240-54724-10

Matrix: Solid | Lab File ID: 50829016.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:48

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.87(g) | Date Analyzed: 08/29/2015 15:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	10		7.7	0.73
50-32-8	Benzo[a]pyrene	9.6		7.7	0.74
205-99-2	Benzo[b]fluoranthene	19		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	17		7.7	0.41
207-08-9	Benzo[k]fluoranthene	6.8	J	7.7	0.79
218-01-9	Chrysene	13		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	15		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	12		7.7	0.41
91-20-3	Naphthalene	13		7.7	0.95
85-01-8	Phenanthrene	6.4	J	7.7	0.85
129-00-0	Pyrene	14		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	76		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	71		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	27		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-1-1 | Lab Sample ID: 240-54724-13

Matrix: Solid | Lab File ID: 50829017.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:20

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.95(g) | Date Analyzed: 08/29/2015 15:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	71		7.9	0.91
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	63		7.9	0.93
56-55-3	Benzo[a]anthracene	53		7.9	0.75
50-32-8	Benzo[a]pyrene	50		7.9	0.76
205-99-2	Benzo[b]fluoranthene	71		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	32		7.9	0.42
207-08-9	Benzo[k]fluoranthene	19		7.9	0.81
218-01-9	Chrysene	56		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	8.7		7.9	0.79
206-44-0	Fluoranthene	150		7.9	0.66
86-73-7	Fluorene	71		7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	27		7.9	0.42
91-20-3	Naphthalene	190		7.9	0.98
85-01-8	Phenanthrene	270		7.9	0.87
129-00-0	Pyrene	120		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	78		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-2-1 | Lab Sample ID: 240-54724-14

Matrix: Solid | Lab File ID: 50829018.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:22

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.66(g) | Date Analyzed: 08/29/2015 16:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	11		8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	7.6	J	8.0	0.93
56-55-3	Benzo[a]anthracene	4.6	J	8.0	0.75
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	5.9	J	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	8.0	0.81
218-01-9	Chrysene	5.5	J	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	16		8.0	0.66
86-73-7	Fluorene	10		8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	29		8.0	0.98
85-01-8	Phenanthrene	40		8.0	0.87
129-00-0	Pyrene	14		8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		36-110
4165-62-2	Phenol-d5 (Surr)	87		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	72		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-3-1 | Lab Sample ID: 240-54724-15

Matrix: Solid | Lab File ID: 50829014.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:24

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.90(g) | Date Analyzed: 08/29/2015 14:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	92		8.5	0.97
208-96-8	Acenaphthylene	0.45	U	8.5	0.45
120-12-7	Anthracene	31		8.5	1.0
56-55-3	Benzo[a]anthracene	21		8.5	0.81
50-32-8	Benzo[a]pyrene	18		8.5	0.82
205-99-2	Benzo[b]fluoranthene	24		8.5	0.76
191-24-2	Benzo[g,h,i]perylene	11		8.5	0.45
207-08-9	Benzo[k]fluoranthene	8.8		8.5	0.87
218-01-9	Chrysene	23		8.5	1.4
53-70-3	Dibenz(a,h)anthracene	0.84	U	8.5	0.84
206-44-0	Fluoranthene	81		8.5	0.70
86-73-7	Fluorene	96		8.5	0.68
193-39-5	Indeno[1,2,3-cd]pyrene	11		8.5	0.45
91-20-3	Naphthalene	150		8.5	1.0
85-01-8	Phenanthrene	200		8.5	0.93
129-00-0	Pyrene	64		8.5	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-4-1 | Lab Sample ID: 240-54724-16

Matrix: Solid | Lab File ID: 50829013.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:26

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.23(g) | Date Analyzed: 08/29/2015 14:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	4.5	J	7.7	0.90
56-55-3	Benzo[a]anthracene	14		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	15		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	11		7.7	0.41
207-08-9	Benzo[k]fluoranthene	7.8		7.7	0.79
218-01-9	Chrysene	14		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	22		7.7	0.64
86-73-7	Fluorene	14		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	7.2	J	7.7	0.41
91-20-3	Naphthalene	43		7.7	0.95
85-01-8	Phenanthrene	31		7.7	0.85
129-00-0	Pyrene	20		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-1-2 | Lab Sample ID: 240-54724-17

Matrix: Solid | Lab File ID: 50829010.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:28

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.26(g) | Date Analyzed: 08/29/2015 12:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	9.3		8.1	0.77
50-32-8	Benzo[a]pyrene	9.8		8.1	0.78
205-99-2	Benzo[b]fluoranthene	16		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	9.8		8.1	0.43
207-08-9	Benzo[k]fluoranthene	4.8	J	8.1	0.83
218-01-9	Chrysene	12		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	17		8.1	0.67
86-73-7	Fluorene	0.65	U	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	6.5	J	8.1	0.43
91-20-3	Naphthalene	13		8.1	1.0
85-01-8	Phenanthrene	15		8.1	0.89
129-00-0	Pyrene	15		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	80		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-2-2 | Lab Sample ID: 240-54724-18

Matrix: Solid | Lab File ID: 50829021.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:30

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 29.77(g) | Date Analyzed: 08/29/2015 17:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	86		31	3.6
208-96-8	Acenaphthylene	82		31	1.6
120-12-7	Anthracene	610		31	3.7
56-55-3	Benzo[a]anthracene	2300		31	3.0
50-32-8	Benzo[a]pyrene	1700		31	3.0
205-99-2	Benzo[b]fluoranthene	2200		31	2.8
191-24-2	Benzo[g,h,i]perylene	1100		31	1.6
207-08-9	Benzo[k]fluoranthene	1000		31	3.2
218-01-9	Chrysene	2100		31	5.2
53-70-3	Dibenz(a,h)anthracene	290		31	3.1
206-44-0	Fluoranthene	4200		31	2.6
86-73-7	Fluorene	150		31	2.5
193-39-5	Indeno[1,2,3-cd]pyrene	950		31	1.6
91-20-3	Naphthalene	23	J	31	3.9
85-01-8	Phenanthrene	2300		31	3.4
129-00-0	Pyrene	3700		31	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	78		20-110
367-12-4	2-Fluorophenol (Surr)	84		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-DUP07-082515 | Lab Sample ID: 240-54724-19

Matrix: Solid | Lab File ID: 50829007.D

Analysis Method: 8270D | Date Collected: 08/25/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30.20(g) | Date Analyzed: 08/29/2015 11:43

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.5	J	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	13		8.1	0.95
56-55-3	Benzo[a]anthracene	28		8.1	0.77
50-32-8	Benzo[a]pyrene	23		8.1	0.78
205-99-2	Benzo[b]fluoranthene	30		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	15		8.1	0.43
207-08-9	Benzo[k]fluoranthene	17		8.1	0.83
218-01-9	Chrysene	31		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.1	0.81
206-44-0	Fluoranthene	72		8.1	0.67
86-73-7	Fluorene	5.9	J	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	12		8.1	0.43
91-20-3	Naphthalene	7.3	J	8.1	1.0
85-01-8	Phenanthrene	55		8.1	0.89
129-00-0	Pyrene	60		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	52		10-110

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: P1100009.D

Analysis Method: 8082A | Date Collected: 08/25/2015 10:20

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 790(mL) | Date Analyzed: 08/30/2015 19:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.22	U	0.63	0.22
11104-28-2	Aroclor-1221	0.16	U	0.63	0.16
11141-16-5	Aroclor-1232	0.20	U	0.63	0.20
53469-21-9	Aroclor-1242	0.28	U	0.63	0.28
12672-29-6	Aroclor-1248	0.13	U	0.63	0.13
11097-69-1	Aroclor-1254	0.20	U	0.63	0.20
11096-82-5	Aroclor-1260	0.22	U	0.63	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	47		21-124
2051-24-3	DCB Decachlorobiphenyl	21		10-131

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-DFRAC-082515 Lab Sample ID: 240-54724-11

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG ID.:

Matrix: Water Date Sampled: 08/25/2015 10:20

Reporting Basis: WET Date Received: 08/26/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Flashpoint	>200	1.00	1.00	Degrees F			1	1010A

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D Area F

Report Number: 240-54724-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/26/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 08/27/2015.

2-Butanone (MEK) and Acetone were detected in method blank MB 240-195083/7 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

2-Chloro-ethyl vinyl ether cannot be reliably recovered in an acid preserved sample. WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12)

The continuing calibration verification (CCV) for analytical batch 195083 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18) and D-DUP07-082515 (240-54724-19) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/27/2015 and analyzed on 08/29/2015.

Samples D-VB-F-1-2 (240-54724-1)[2X] and D-VB-D-2-2 (240-54724-18)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 195413 had an Rf for the surrogate 2,4,6-tribromophenol below method recommendations. Because the target analyte list is BN only no corrective action was necessary. The following samples were impacted:D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18), D-DUP07-082515 (240-54724-19), (LCS 240-195059/24-A), (LCS 240-195060/6-A), (MB 240-195059/23-A), (MB 240-195060/5-A), (240-54724-B-17-B MS), (240-54724-B-17-C MSD), (240-54724-B-19-B MS) and (240-54724-B-19-C MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 08/29/2015 and analyzed on 08/30/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-195028

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The samples were leached on 08/27/2015, prepared on 08/28/2015 and analyzed on 08/31/2015.

Barium and Chromium were detected in method blank LB 240-195274/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Cadmium was detected in method blank MB 240-195294/2-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 08/27/2015, prepared on 08/28/2015 and analyzed on 08/31/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 08/28/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Samples D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18) and D-DUP07-082515 (240-54724-19) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/26/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

1,8/C2,8

Chain of Custody Record

#34 016181

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FedEx	1 of 2 COCs
Address: 20251 CENTURY BLVD. STE. 200	Analysis Turnaround Time			Sampler: MULLIS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY	☐ 1 week			
Site: MRC BLOCK O AREA F	☐ 2 days			Job / SDG No.:
P O # 112IC07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH (8270D)	VOCs	PCBs	TCLP Metals	Ignitability	Sample Specific Notes:
O-VB-F-1-2	8/25/15	1030	C	SOIL	1			X					* O-VB AND O-VS
O-VB-F-2-2		1032						X					SAMPLES 3 DAY TAT *
O-VB-F-3-2		1034						X					
O-VB-F-4-2		1036						X					
O-VB-F-5-2		1038						X					
O-VB-F-7-2		1040						X					
O-VB-F-8-2		1042						X					
O-VB-F-9-2		1044						X					
O-VS-F-1-1		1046						X					
O-VS-F-2-1		1048						X					
WC-OFRAC-082515		1020		AQ	8				X	X	X	X	* 5 DAY TAT
TB-082515		—		AQ	2				X				

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA F (3 DAY TAT)
* WC-OFRAC = WASTE CHARACTERIZATION FOR STORM WATER IN BLOCK O FRAC TANK (5 DAY TAT)

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TETRA TECH	8/25/15 1630		TestAmerica	8/25/15 1700
Relinquished by:	TestAmerica	8/25/15 1730		TA	8/26/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

4.8 | 2.8
JB

Chain of Custody Record

#35
016180

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBITT	Site Contact: J. MULLIS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FedEx	2 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler: MULLIS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3005	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY	☐ 1 week			Job / SDG No.:
Site: MRC BLOCK O AREA D	☐ 2 days			
P O # 112IC07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
O-VS-O-1-1	8/25/15	1420	C	SOIL	1			X	
O-VS-O-2-1		1422						X	
O-VS-O-3-1		1424						X	
O-VS-O-4-1		1426						X	
O-VB-O-1-2		1428						X	
O-VB-O-2-2		1430						X	
O-DUP07-082515								X	
				8/25/15					

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA D

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

	Company	Date/Time	Received by	Company	Date/Time
Relinquished by:	TETRA TECH	8/25/15 1630		TestAmerica	8/25/15 1700
Relinquished by:	TestAmerica	8/25/15 1730	Alex Cole	TA	8/26/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 54724
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 8/26/15 Opened on 8/26/15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~ ☐ See Multiple Cooler Form
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
X:\X-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099T-052915 Cooler Receipt Form.doc djl
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Field Duplicate Precision

ANALYTE	D-DUP07-082515	D-VB-D-2-2	RPD	RL	DIFFERENCE
ACENAPHTHENE	5.5	86	175.96	31	80.5
ACENAPHTHYLENE	ND	82	200.00	31	81.57
ANTHRACENE	13	610	191.65	31	597
BENZO(A)ANTHRACENE	28	2300	195.19	31	2272
BENZO(A)PYRENE	23	1700	194.66	31	1677
BENZO(B)FLUORANTHENE	30	2200	194.62	31	2170
BENZO(G,H,I)PERYLENE	15	1100	194.62	31	1085
BENZO(K)FLUORANTHENE	17	1000	193.31	31	983
CHRYSENE	31	2100	194.18	31	2069
DIBENZO(A,H)ANTHRACENE	ND	290	200.00	31	289.19
FLUORANTHENE	72	4200	193.26	31	4128
FLUORENE	5.9	150	184.86	31	144.1
INDENO(1,2,3-CD)PYRENE	12	950	195.01	31	938
NAPHTHALENE	7.3	23	103.63	31	15.7
PHENANTHRENE	55	2300	190.66	31	2245
PYRENE	60	3700	193.62	31	3640

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: BFB813A.D BFB Injection Date: 08/13/2015

Instrument ID: A3UX11 BFB Injection Time: 10:51

Analysis Batch No.: 193142

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.8	
75	30.0 - 60.0 % of mass 95	51.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	86.1	
175	5.0 - 9.0 % of mass 174	7.5	(8.7)1
176	95.0 - 101.0 % of mass 174	83.4	(96.9)1
177	5.0 - 9.0 % of mass 176	5.2	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-193142/2	UXJ8315B.D	08/13/2015	12:22
	STD8260 240-193142/3	UXJ8316B.D	08/13/2015	12:45
	STD8260 240-193142/4	UXJ8317B.D	08/13/2015	13:07
	STD8260 240-193142/5	UXJ8318B.D	08/13/2015	13:30
	STD8260 240-193142/6	UXJ8319B.D	08/13/2015	13:52
	STD8260 240-193142/7	UXJ8320.D	08/13/2015	14:14
	ICV 240-193142/14	UXJ8321.D	08/13/2015	14:37
	STD6 240-193142/8	UXJ8322.D	08/13/2015	14:59
	STD5 240-193142/9	UXJ8323.D	08/13/2015	15:22
	STD4 240-193142/10	UXJ8324.D	08/13/2015	15:45
	STD3 240-193142/11	UXJ8325.D	08/13/2015	16:08
	STD2 240-193142/12	UXJ8326.D	08/13/2015	16:30
	STD1 240-193142/13	UXJ8327.D	08/13/2015	16:53
	ICV 240-193142/15	UXJ8328.D	08/13/2015	17:16

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-193142/7	UXJ8320.D
Level 2	STD8260 240-193142/6	UXJ8319B.D
Level 3	STD8260 240-193142/5	UXJ8318B.D
Level 4	STD8260 240-193142/4	UXJ8317B.D
Level 5	STD8260 240-193142/3	UXJ8316B.D
Level 6	STD8260 240-193142/2	UXJ8315B.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2289 0.1905	0.2134	0.2220	0.1980	0.1940	Ave		0.2078			0.1000	7.7		15.0			
Chloromethane	0.3210 0.2514	0.3404	0.3244	0.3021	0.2811	Ave		0.3034			0.1000	10.8		15.0			
Vinyl chloride	0.3452 0.2472	0.3311	0.3173	0.2993	0.2695	Ave		0.3016			0.1000	12.4		15.0			
Butadiene	0.3163 0.2609	0.3078	0.3197	0.2951	0.2826	Ave		0.2971				7.6		15.0			
Bromomethane	0.1769 0.1624	0.1998	0.1854	0.1763	0.1701	Ave		0.1785			0.0500	7.3		15.0			
Chloroethane	0.1893 0.1700	0.1935	0.1908	0.1799	0.1808	Ave		0.1840				4.8		15.0			
Dichlorofluoromethane	0.4355 0.4049	0.4576	0.4412	0.4347	0.4239	Ave		0.4329				4.1		15.0			
Trichlorofluoromethane	0.4119 0.3700	0.3864	0.3855	0.3676	0.3703	Ave		0.3820			0.1000	4.4		15.0			
Ethyl ether	0.4472 0.3117	0.3990	0.3610	0.3354	0.3147	Ave		0.3615				14.7		15.0			
Acrolein	0.0242 0.0237	0.0238	0.0233	0.0233	0.0238	Ave		0.0237				1.4		15.0			
1,1-Dichloroethene	0.3206 0.2786	0.3039	0.3207	0.3019	0.2877	Ave		0.3022			0.1000	5.6		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1780 0.1598	0.1710	0.1664	0.1618	0.1623	Ave		0.1666			0.0500	4.1		15.0			
Acetone	0.1759 0.0749	0.1250	0.0903	0.0823	0.0844	Lin1	0.2004	0.0741			0.0500				0.9980		0.9900
Iodomethane	0.4264 0.3796	0.4357	0.4310	0.4020	0.4024	Ave		0.4129				5.3		15.0			
Carbon disulfide	0.9020 0.7673	0.8491	0.8169	0.8078	0.7777	Ave		0.8201			0.1000	6.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2339 0.2320	0.2466	0.2339	0.2374	0.2312	Ave		0.2358				2.4		15.0			
Methyl acetate	0.2146 0.1774	0.1974	0.1849	0.1853	0.1777	Ave		0.1896			0.1000	7.5		15.0			
Methylene Chloride	0.7817 0.3051	0.6001	0.4326	0.3583	0.3299	Lin1	0.5426	0.2984			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0127 0.0124	0.0159	0.0153	0.0145	0.0145	Ave		0.0142				9.9		15.0			
Acrylonitrile	0.0913 0.0853	0.0896	0.0865	0.0864	0.0859	Ave		0.0875				2.7		15.0			
Methyl tert-butyl ether	0.8971 0.8895	0.9038	0.8953	0.9003	0.9036	Ave		0.8983			0.1000	0.6		15.0			
trans-1,2-Dichloroethene	0.3354 0.3424	0.3606	0.3503	0.3527	0.3442	Ave		0.3476			0.1000	2.5		15.0			
Hexane	0.0848 0.0771	0.0748	0.0737	0.0751	0.0738	Ave		0.0766				5.5		15.0			
1,1-Dichloroethane	0.6147 0.6181	0.6293	0.6211	0.6154	0.6139	Ave		0.6188			0.1000	0.9		15.0			
Vinyl acetate	0.4062 0.4465	0.3977	0.4149	0.4299	0.4247	Ave		0.4200				4.2		15.0			
cis-1,2-Dichloroethene	0.3598 0.3676	0.3704	0.3645	0.3510	0.3687	Ave		0.3637			0.1000	2.0		15.0			
2-Butanone (MEK)	0.1262 0.1059	0.0889	0.1098	0.1011	0.1027	Ave		0.1058			0.0500	11.6		15.0			
2,2-Dichloropropane	0.3168 0.3372	0.3374	0.3355	0.3316	0.3433	Ave		0.3336				2.7		15.0			
Bromochloromethane	0.1745 0.1673	0.1709	0.1648	0.1620	0.1644	Ave		0.1673				2.8		15.0			
Tetrahydrofuran	0.0751 0.0645	0.0665	0.0628	0.0644	0.0637	Ave		0.0662				6.9		15.0			
Chloroform	0.6241 0.5929	0.6432	0.5863	0.5755	0.5871	Ave		0.6015				4.4		15.0			
1,1,1-Trichloroethane	0.4366 0.4457	0.4647	0.4329	0.4241	0.4549	Ave		0.4431			0.1000	3.4		15.0			
Cyclohexane	0.5217 0.4700	0.4632	0.4479	0.4403	0.4657	Ave		0.4681			0.1000	6.1		15.0			
1,1-Dichloropropene	0.4463 0.4536	0.4442	0.4382	0.4181	0.4524	Ave		0.4421				2.9		15.0			
Carbon tetrachloride	0.3206 0.3671	0.3469	0.3161	0.3238	0.3626	Ave		0.3395			0.1000	6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0102 0.0095	0.0095	0.0087	0.0095	0.0098	Ave		0.0095				5.1		15.0			
Benzene	1.4632 1.4730	1.4970	1.3954	1.4010	1.4860	Ave		1.4526			0.5000	3.0		15.0			
1,2-Dichloroethane	0.4774 0.4602	0.4968	0.4491	0.4433	0.4615	Ave		0.4647			0.1000	4.2		15.0			
n-Heptane	0.0896 0.0711	0.0640	0.0686	0.0666	0.0693	Ave		0.0715				12.8		15.0			
Trichloroethene	0.3761 0.3488	0.3702	0.3547	0.3400	0.3583	Ave		0.3580			0.2000	3.7		15.0			
Methylcyclohexane	0.4876 0.4394	0.3984	0.4242	0.3956	0.4282	Ave		0.4289			0.1000	7.8		15.0			
1,2-Dichloropropane	0.3383 0.3424	0.3443	0.3289	0.3265	0.3481	Ave		0.3381			0.1000	2.6		15.0			
Dibromomethane	0.1713 0.1727	0.1699	0.1701	0.1652	0.1803	Ave		0.1716				2.9		15.0			
1,4-Dioxane	0.0012 +++++	0.0012	0.0021	0.0019	0.0020	Lin1	-0.021	0.0021							0.9930		0.9900
Bromodichloromethane	0.3619 0.4355	0.3992	0.3872	0.3789	0.4284	Ave		0.3985			0.1000	7.2		15.0			
2-Chloroethyl vinyl ether	0.1874 0.1937	0.1806	0.1774	0.1763	0.1961	Ave		0.1852				4.5		15.0			
cis-1,3-Dichloropropene	0.4372 0.5251	0.4665	0.4538	0.4748	0.5191	Ave		0.4794			0.1500	7.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.2223 0.2382	0.2244	0.2167	0.2210	0.2422	Ave		0.2275			0.0500	4.5		15.0			
Toluene	2.5693 2.6494	2.6772	2.5867	2.5706	2.6848	Ave		2.6230			0.4000	2.0		15.0			
trans-1,3-Dichloropropene	0.5915 0.7575	0.6877	0.6662	0.6977	0.7643	Ave		0.6942			0.1000	9.2		15.0			
Ethyl methacrylate	0.5564 0.6714	0.5977	0.6193	0.6239	0.6949	Ave		0.6273				8.0		15.0			
1,1,2-Trichloroethane	0.4326 0.4311	0.4420	0.4372	0.4311	0.4569	Ave		0.4385			0.1000	2.3		15.0			
Tetrachloroethene	0.4326 0.4407	0.4480	0.4492	0.4251	0.4522	Ave		0.4413			0.2000	2.4		15.0			
1,3-Dichloropropane	0.8100 0.8054	0.7900	0.8109	0.7888	0.8346	Ave		0.8066				2.1		15.0			
2-Hexanone	0.2733 0.2873	0.2715	0.2794	0.2713	0.2939	Ave		0.2795			0.0500	3.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.3607 0.4513	0.3890	0.4093	0.4048	0.4590	Ave		0.4124				9.1		15.0			
1,2-Dibromoethane	0.3835 0.3958	0.3737	0.3905	0.3750	0.4068	Ave		0.3875				3.3		15.0			
Chlorobenzene	1.2333 1.3197	1.3558	1.3168	1.2769	1.3540	Ave		1.3094			0.3000	3.6		15.0			
1,1,1,2-Tetrachloroethane	0.3535 0.4149	0.4055	0.3956	0.3982	0.4197	Ave		0.3979				5.9		15.0			
Ethylbenzene	0.6849 0.7212	0.7403	0.7061	0.6883	0.7411	Ave		0.7136				3.5		15.0			
m-Xylene & p-Xylene	0.8141 0.8528	0.8256	0.8427	0.8245	0.8961	Ave		0.8426				3.5		15.0			
o-Xylene	0.7046 0.7640	0.7730	0.7219	0.7271	0.7984	Ave		0.7482				4.8		15.0			
Styrene	1.1902 1.3943	1.2341	1.2923	1.2841	1.4338	Ave		1.3048			0.3000	7.1		15.0			
Bromoform	0.1681 0.2164	0.1795	0.1775	0.1884	0.2118	Ave		0.1903			0.1000	10.3		15.0			
Isopropylbenzene	1.6207 1.8033	1.7196	1.7320	1.6707	1.8585	Ave		1.7341			0.1000	5.0		15.0			
1,1,2,2-Tetrachloroethane	0.9121 0.8033	0.9364	0.9002	0.8845	0.8619	Ave		0.8831			0.3000	5.3		15.0			
Bromobenzene	1.1746 1.0244	1.2251	1.1340	1.0962	1.0846	Ave		1.1232				6.3		15.0			
1,2,3-Trichloropropane	0.3323 0.2763	0.3172	0.3018	0.3043	0.2874	Ave		0.3032				6.6		15.0			
trans-1,4-Dichloro-2-butene	0.2718 0.2710	0.2602	0.2745	0.2699	0.2730	Ave		0.2701				1.9		15.0			
N-Propylbenzene	1.2643 1.0385	1.0948	1.1261	1.1021	1.1146	Ave		1.1234				6.7		15.0			
2-Chlorotoluene	1.0145 0.8743	1.0148	1.0001	0.9358	0.9452	Ave		0.9641				5.8		15.0			
1,3,5-Trimethylbenzene	2.8913 2.9862	3.1978	3.0812	2.9786	3.1040	Ave		3.0399				3.6		15.0			
4-Chlorotoluene	1.0570 0.9439	1.0488	1.0323	0.9918	1.0107	Ave		1.0141				4.1		15.0			
tert-Butylbenzene	2.5067 2.3806	2.6145	2.4847	2.4554	2.5224	Ave		2.4941				3.1		15.0			
1,2,4-Trimethylbenzene	3.1766 3.1122	3.2789	3.1485	3.1829	3.2277	Ave		3.1878				1.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.5142 3.3065	3.5221	3.4622	3.3843	3.4110	Ave		3.4334				2.4		15.0			
1,3-Dichlorobenzene	1.9826 1.8259	2.0145	1.9348	1.8572	1.8689	Ave		1.9140			0.6000	3.9		15.0			
p-Isopropyltoluene	2.8801 3.0360	2.8433	2.9700	2.9327	3.0401	Ave		2.9504				2.7		15.0			
1,4-Dichlorobenzene	2.0215 1.8787	2.0166	1.9869	1.9186	1.9545	Ave		1.9628			0.5000	2.9		15.0			
n-Butylbenzene	2.4402 2.6109	2.4775	2.5462	2.4904	2.5602	Ave		2.5209				2.5		15.0			
1,2-Dichlorobenzene	2.0331 1.7994	2.0389	1.9004	1.8262	1.8181	Ave		1.9027			0.4000	5.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1472 0.1476	0.1466	0.1510	0.1508	0.1505	Ave		0.1490			0.0500	1.3		15.0			
1,2,4-Trichlorobenzene	1.2834 1.0439	1.2994	1.1961	1.1768	1.0511	Ave		1.1751			0.2000	9.3		15.0			
Hexachlorobutadiene	0.5790 0.4059	0.5163	0.5276	0.4763	0.4091	Ave		0.4857				14.2		15.0			
Naphthalene	2.9081 2.3957	2.8989	2.7935	2.7660	2.5403	Ave		2.7171				7.6		15.0			
1,2,3-Trichlorobenzene	1.1196 0.8884	1.2374	1.1303	1.0690	0.9491	Ave		1.0657				12.0		15.0			
Dibromofluoromethane (Surr)	0.2695 0.2867	0.2789	0.2814	0.2698	0.2931	Ave		0.2799				3.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3411 0.3856	0.3565	0.3644	0.3688	0.3882	Ave		0.3674				4.8		15.0			
Toluene-d8 (Surr)	1.9310 2.1561	2.0364	2.0182	2.0594	2.1619	Ave		2.0605				4.3		15.0			
4-Bromofluorobenzene (Surr)	0.4667 0.4991	0.4576	0.4852	0.4672	0.5187	Ave		0.4824				4.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-193142/13	UXJ8327.D
Level 2	STD2 240-193142/12	UXJ8326.D
Level 3	STD3 240-193142/11	UXJ8325.D
Level 4	STD4 240-193142/10	UXJ8324.D
Level 5	STD5 240-193142/9	UXJ8323.D
Level 6	STD6 240-193142/8	UXJ8322.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0209 0.0217	0.0208	0.0210	0.0211	0.0220	Ave		0.0212				2.3		15.0			
Diisopropyl ether	0.3447 0.2829	0.2897	0.3000	0.2872	0.2970	Ave		0.3002				7.6		15.0			
2-Chloro-1,3-butadiene	0.5274 0.4823	0.4801	0.5008	0.4655	0.4939	Ave		0.4917				4.3		15.0			
Ethyl t-butyl ether	1.0570 0.9252	0.9340	0.9693	0.9103	0.9479	Ave		0.9573				5.5		15.0			
Ethyl acetate	0.2599 0.2152	0.2271	0.2194	0.2083	0.2203	Ave		0.2250				8.1		15.0			
Propionitrile	0.0278 0.0277	0.0271	0.0282	0.0269	0.0282	Ave		0.0276				1.9		15.0			
Methacrylonitrile	0.1728 0.1724	0.1584	0.1629	0.1597	0.1687	Ave		0.1658				3.8		15.0			
Tert-amyl methyl ether	0.8769 0.8788	0.8278	0.8405	0.8247	0.8779	Ave		0.8544				3.1		15.0			
n-Butanol	0.0050 0.0062	0.0045	0.0057	0.0057	0.0058	Ave		0.0055				10.8		15.0			
Ethyl acrylate	0.3224 0.3362	0.2892	0.3143	0.3157	0.3275	Ave		0.3175				5.1		15.0			
Methyl methacrylate	0.2466 0.2585	0.2262	0.2500	0.2420	0.2537	Ave		0.2462				4.6		15.0			
2-Nitropropane	0.0484 0.0518	0.0426	0.0465	0.0414	0.0506	Ave		0.0469				9.0		15.0			
n-Butyl acetate	0.3592 0.3479	0.3073	0.3278	0.3287	0.3434	Ave		0.3357				5.5		15.0			
1-Chlorohexane	0.6277 0.5755	0.4943	0.5469	0.5354	0.5618	Ave		0.5569				8.0		15.0			
Cyclohexanone	0.0210 0.0182	0.0194	0.0203	0.0190	0.0212	Ave		0.0199				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	3.0422 3.3995	2.9396	3.1023	3.0106	3.2448	Ave		3.1232				5.4		15.0			
1,3,5-Trichlorobenzene	1.3758 1.2100	1.1737	1.2267	1.2079	1.2350	Ave		1.2382				5.7		15.0			
2-Methylnaphthalene	1.4575 1.0069	1.5181	1.3699	1.4396	1.4972	Ave		1.3816				13.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: BFB827.D BFB Injection Date: 08/27/2015

Instrument ID: A3UX11 BFB Injection Time: 09:56

Analysis Batch No.: 195083

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	52.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	87.5	
175	5.0 - 9.0 % of mass 174	7.1	(8.2)1
176	95.0 - 101.0 % of mass 174	84.7	(96.8)1
177	5.0 - 9.0 % of mass 176	5.5	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-195083/2	UXJ8728.D	08/27/2015	10:26
	LCS 240-195083/4	UXJ8729.D	08/27/2015	10:48
	CCV 240-195083/3	UXJ8730.D	08/27/2015	11:11
	MB 240-195083/7	UXJ8733.D	08/27/2015	12:18
TB-082515	240-54724-12	UXJ8734.D	08/27/2015	12:41
WC-DFRAC-082515	240-54724-11	UXJ8735.D	08/27/2015	13:04
WC-DFRAC-082515 MS	240-54724-11 MS	UXJ8738.D	08/27/2015	14:12
WC-DFRAC-082515 MSD	240-54724-11 MSD	UXJ8739.D	08/27/2015	14:35

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2078	0.1777	0.1000	0.00855	0.0100	-14.5	20.0
Chloromethane	Ave	0.3034	0.2838	0.1000	0.00936	0.0100	-6.4	20.0
Vinyl chloride	Ave	0.3016	0.2584	0.1000	0.00857	0.0100	-14.3	20.0
Butadiene	Ave	0.2971	0.2712		0.00913	0.0100	-8.7	20.0
Bromomethane	Ave	0.1785	0.1527	0.0500	0.00856	0.0100	-14.4	20.0
Chloroethane	Ave	0.1840	0.1589	0.0500	0.00864	0.0100	-13.6	20.0
Dichlorofluoromethane	Ave	0.4329	0.3831		0.00885	0.0100	-11.5	20.0
Trichlorofluoromethane	Ave	0.3820	0.3588	0.1000	0.00939	0.0100	-6.1	20.0
Ethyl ether	Ave	0.3615	0.3173		0.00878	0.0100	-12.2	20.0
Acrolein	Ave	0.0237	0.0243		0.0513	0.0500	2.6	20.0
1,1-Dichloroethene	Ave	0.3022	0.2804	0.1000	0.00928	0.0100	-7.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1666	0.1567	0.0500	0.00941	0.0100	-5.9	20.0
Acetone	Lin1		0.1060	0.0500	0.0259	0.0200	29.4*	20.0
Iodomethane	Ave	0.4129	0.4038		0.00978	0.0100	-2.2	20.0
Carbon disulfide	Ave	0.8201	0.8157	0.1000	0.00995	0.0100	-0.5	20.0
3-Chloro-1-propene	Ave	0.2358	0.2476		0.0105	0.0100	5.0	20.0
Methyl acetate	Ave	0.1896	0.1842	0.1000	0.0486	0.0500	-2.8	20.0
Methylene Chloride	Lin1		0.3429	0.1000	0.00967	0.0100	-3.3	20.0
tert-Butyl alcohol (TBA)	Ave	0.0142	0.0121		0.0854	0.100	-14.6	20.0
Acrylonitrile	Ave	0.0875	0.0880		0.101	0.100	0.6	20.0
Methyl tert-butyl ether	Ave	0.8983	0.8720	0.1000	0.00971	0.0100	-2.9	20.0
trans-1,2-Dichloroethene	Ave	0.3476	0.3466	0.1000	0.00997	0.0100	-0.3	20.0
Hexane	Ave	0.0766	0.0814		0.0106	0.0100	6.3	20.0
1,1-Dichloroethane	Ave	0.6188	0.6353	0.1000	0.0103	0.0100	2.7	20.0
Vinyl acetate	Ave	0.4200	0.4372		0.0104	0.0100	4.1	20.0
cis-1,2-Dichloroethene	Ave	0.3637	0.3613	0.1000	0.00993	0.0100	-0.7	20.0
2,2-Dichloropropane	Ave	0.3336	0.3413		0.0102	0.0100	2.3	20.0
2-Butanone (MEK)	Ave	0.1058	0.1133	0.0500	0.0214	0.0200	7.1	20.0
Bromochloromethane	Ave	0.1673	0.1623		0.00970	0.0100	-3.0	20.0
Tetrahydrofuran	Ave	0.0662	0.0921		0.0278	0.0200	39.1*	20.0
Chloroform	Ave	0.6015	0.5814	0.2000	0.00967	0.0100	-3.3	20.0
1,1,1-Trichloroethane	Ave	0.4431	0.4486	0.1000	0.0101	0.0100	1.2	20.0
Cyclohexane	Ave	0.4681	0.4886	0.1000	0.0104	0.0100	4.4	20.0
1,1-Dichloropropene	Ave	0.4421	0.4592		0.0104	0.0100	3.9	20.0
Carbon tetrachloride	Ave	0.3395	0.3983	0.1000	0.0117	0.0100	17.3	20.0
Isobutyl alcohol	Ave	0.0095	0.0083		0.218	0.250	-12.9	20.0
1,2-Dichloroethane	Ave	0.4647	0.4617	0.1000	0.00993	0.0100	-0.7	20.0
Benzene	Ave	1.453	1.475	0.5000	0.0102	0.0100	1.6	20.0
n-Heptane	Ave	0.0715	0.0762		0.0106	0.0100	6.5	20.0
Trichloroethene	Ave	0.3580	0.3640	0.2000	0.0102	0.0100	1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4289	0.4615	0.1000	0.0108	0.0100	7.6	20.0
1,2-Dichloropropane	Ave	0.3381	0.3636	0.1000	0.0108	0.0100	7.5	20.0
1,4-Dioxane	Lin1		0.0017		0.171	0.200	-14.3	20.0
Dibromomethane	Ave	0.1716	0.1728		0.0101	0.0100	0.7	20.0
Bromodichloromethane	Ave	0.3985	0.4223	0.1000	0.0106	0.0100	6.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1852	0.1886		0.0204	0.0200	1.8	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5109	0.1500	0.0107	0.0100	6.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2275	0.2262	0.0500	0.0199	0.0200	-0.6	20.0
Toluene	Ave	2.623	2.617	0.4000	0.00998	0.0100	-0.2	20.0
trans-1,3-Dichloropropene	Ave	0.6942	0.7117	0.1000	0.0103	0.0100	2.5	20.0
Ethyl methacrylate	Ave	0.6273	0.6081		0.00969	0.0100	-3.1	20.0
1,1,2-Trichloroethane	Ave	0.4385	0.4309	0.1000	0.00983	0.0100	-1.7	20.0
Tetrachloroethene	Ave	0.4413	0.4483	0.2000	0.0102	0.0100	1.6	20.0
1,3-Dichloropropane	Ave	0.8066	0.8242		0.0102	0.0100	2.2	20.0
2-Hexanone	Ave	0.2795	0.2638	0.0500	0.0189	0.0200	-5.6	20.0
Dibromochloromethane	Ave	0.4124	0.4406		0.0107	0.0100	6.9	20.0
1,2-Dibromoethane	Ave	0.3875	0.3860		0.00996	0.0100	-0.4	20.0
Chlorobenzene	Ave	1.309	1.337	0.3000	0.0102	0.0100	2.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3979	0.4337		0.0109	0.0100	9.0	20.0
Ethylbenzene	Ave	0.7136	0.7276		0.0102	0.0100	2.0	20.0
m-Xylene & p-Xylene	Ave	0.8426	0.8858		0.0105	0.0100	5.1	20.0
o-Xylene	Ave	0.7482	0.7805		0.0104	0.0100	4.3	20.0
Styrene	Ave	1.305	1.368	0.3000	0.0105	0.0100	4.8	20.0
Bromoform	Ave	0.1903	0.2098	0.1000	0.0110	0.0100	10.2	20.0
Isopropylbenzene	Ave	1.734	1.799	0.1000	0.0104	0.0100	3.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8831	0.9579	0.3000	0.0108	0.0100	8.5	20.0
Bromobenzene	Ave	1.123	1.258		0.0112	0.0100	12.0	20.0
1,2,3-Trichloropropane	Ave	0.3032	0.3126		0.0103	0.0100	3.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2701	0.2705		0.0100	0.0100	0.2	20.0
N-Propylbenzene	Ave	1.123	1.271		0.0113	0.0100	13.1	20.0
2-Chlorotoluene	Ave	0.9641	1.066		0.0111	0.0100	10.5	20.0
1,3,5-Trimethylbenzene	Ave	3.040	3.399		0.0112	0.0100	11.8	20.0
4-Chlorotoluene	Ave	1.014	1.120		0.0110	0.0100	10.5	20.0
tert-Butylbenzene	Ave	2.494	2.666		0.0107	0.0100	6.9	20.0
1,2,4-Trimethylbenzene	Ave	3.188	3.392		0.0106	0.0100	6.4	20.0
sec-Butylbenzene	Ave	3.433	3.575		0.0104	0.0100	4.1	20.0
1,3-Dichlorobenzene	Ave	1.914	1.842	0.6000	0.00962	0.0100	-3.8	20.0
p-Isopropyltoluene	Ave	2.950	3.022		0.0102	0.0100	2.4	20.0
1,4-Dichlorobenzene	Ave	1.963	1.886	0.5000	0.00961	0.0100	-3.9	20.0
n-Butylbenzene	Ave	2.521	2.370		0.00940	0.0100	-6.0	20.0
1,2-Dichlorobenzene	Ave	1.903	1.679	0.4000	0.00882	0.0100	-11.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1490	0.1352	0.0500	0.00908	0.0100	-9.2	20.0
1,2,4-Trichlorobenzene	Ave	1.175	1.006	0.2000	0.00856	0.0100	-14.4	20.0
Hexachlorobutadiene	Ave	0.4857	0.4084		0.00841	0.0100	-15.9	20.0
Naphthalene	Ave	2.717	2.109		0.00776	0.0100	-22.4*	20.0
1,2,3-Trichlorobenzene	Ave	1.066	0.8611		0.00808	0.0100	-19.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2799	0.2807		0.00745	0.00743	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3674	0.3763		0.00760	0.00743	2.4	20.0
Toluene-d8 (Surr)	Ave	2.061	2.075		0.00748	0.00743	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4824	0.4892		0.00753	0.00743	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195083/3 Calibration Date: 08/27/2015 11:11

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 14:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 16:53

Lab File ID: UXJ8730.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0212	0.0221		0.104	0.100	4.2	20.0
Diisopropyl ether	Ave	0.3002	0.2918		0.00972	0.0100	-2.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4917	0.5075		0.0103	0.0100	3.2	20.0
Ethyl t-butyl ether	Ave	0.9573	0.9373		0.00979	0.0100	-2.1	20.0
Ethyl acetate	Ave	0.2250	0.2289		0.0203	0.0200	1.7	20.0
Propionitrile	Ave	0.0276	0.0281		0.102	0.100	1.8	20.0
Methacrylonitrile	Ave	0.1658	0.1745		0.105	0.100	5.2	20.0
Tert-amyl methyl ether	Ave	0.8544	0.8073		0.00945	0.0100	-5.5	20.0
n-Butanol	Ave	0.0055	0.0052		0.235	0.250	-6.1	20.0
Methyl methacrylate	Ave	0.2462	0.2437		0.0198	0.0200	-1.0	20.0
2-Nitropropane	Ave	0.0469	0.0535		0.0228	0.0200	14.2	20.0
1-Chlorohexane	Ave	0.5569	0.5445		0.00978	0.0100	-2.2	20.0
Cyclohexanone	Ave	0.0199	0.0183		0.0921	0.100	-7.9	20.0
1,2,3-Trimethylbenzene	Ave	3.123	3.043		0.00974	0.0100	-2.6	20.0
1,3,5-Trichlorobenzene	Ave	1.238	1.188		0.00959	0.0100	-4.1	20.0
2-Methylnaphthalene	Ave	1.382	0.8783		0.0127	0.0200	-36.4*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: UXJ8733.D Lab Sample ID: MB 240-195083/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 08/27/2015 12:18

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195083/4	UXJ8729.D	08/27/2015 10:48
TB-082515	240-54724-12	UXJ8734.D	08/27/2015 12:41
WC-DFRAC-082515	240-54724-11	UXJ8735.D	08/27/2015 13:04
WC-DFRAC-082515 MS	240-54724-11 MS	UXJ8738.D	08/27/2015 14:12
WC-DFRAC-082515 MSD	240-54724-11 MSD	UXJ8739.D	08/27/2015 14:35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195083/7

Matrix: Water | Lab File ID: UXJ8733.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.94	J	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	9.12	J	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195083/7

Matrix: Water | Lab File ID: UXJ8733.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.45	U	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-195083/7

Matrix: Water Lab File ID: UXJ8733.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 195083 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		79-120
460-00-4	4-Bromofluorobenzene (Surr)	92		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		78-125

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
WC-DFRAC-082515	240-54724-11	101	98	95	101
TB-082515	240-54724-12	101	99	99	102
	MB 240-195083/7	96	94	87	92
	LCS 240-195083/4	103	102	95	102
WC-DFRAC-082515 MS	240-54724-11 MS	99	102	97	105
WC-DFRAC-082515 MSD	240-54724-11 MSD	94	92	91	104

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	79-120
DCA = 1,2-Dichloroethane-d4 (Surr)	78-125
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	61-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8729.D

Lab ID: LCS 240-195083/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.8	108	80-120	
1,1,1-Trichloroethane	10.0	10.5	105	77-123	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	71-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.11	91	67-138	
1,1-Dichloroethane	10.0	10.6	106	79-125	
1,1-Dichloroethene	10.0	9.56	96	76-124	
1,1-Dichloropropene	10.0	11.1	111	80-128	
1,2,3-Trichlorobenzene	10.0	9.07	91	66-120	
1,2,3-Trichloropropane	10.0	10.8	108	72-126	
1,2,4-Trichlorobenzene	10.0	9.23	92	61-120	
1,2,4-Trimethylbenzene	10.0	10.5	105	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.32	93	50-132	
1,2-Dichlorobenzene	10.0	9.28	93	79-120	
1,2-Dichloroethane	10.0	9.84	98	80-120	
1,2-Dichloropropane	10.0	10.5	105	78-124	
1,3-Dichlorobenzene	10.0	9.90	99	79-120	
1,3-Dichloropropane	10.0	9.91	99	80-120	
1,4-Dichlorobenzene	10.0	10.1	101	79-120	
2,2-Dichloropropane	10.0	10.5	105	71-122	
2-Butanone (MEK)	20.0	20.4	102	56-138	
2-Chloroethyl vinyl ether	10.0	9.55 J	95	54-139	
2-Chlorotoluene	10.0	11.1	111	80-120	
2-Hexanone	20.0	17.4	87	55-141	
4-Chlorotoluene	10.0	11.2	112	80-120	
p-Isopropyltoluene	10.0	10.1	101	77-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.7	94	64-135	
Acetone	20.0	25.1	125	34-148	
Benzene	10.0	10.2	102	80-120	
Bromobenzene	10.0	11.4	114	80-120	
Bromoform	10.0	9.81	98	56-122	
Bromomethane	10.0	8.33	83	38-132	
Carbon disulfide	10.0	10.4	104	65-144	
Carbon tetrachloride	10.0	12.0	120	77-131	
Chlorobenzene	10.0	10.3	103	80-120	
Dibromochloromethane	10.0	10.1	101	74-120	
Chloroethane	10.0	9.08	91	36-126	
Chloroform	10.0	9.77	98	80-120	
Chloromethane	10.0	9.12	91	48-133	
cis-1,2-Dichloroethene	10.0	10.1	101	79-120	
cis-1,3-Dichloropropene	10.0	10.2	102	74-126	
Dibromomethane	10.0	9.94	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8729.D

Lab ID: LCS 240-195083/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	10.0	9.75	98	80-120	
Dichlorodifluoromethane	10.0	7.29	73	23-136	
Bromodichloromethane	10.0	10.2	102	80-120	
tert-Butyl alcohol (TBA)	100	95.6	96	38-144	
Ethylbenzene	10.0	10.1	101	80-120	
Hexachlorobutadiene	10.0	8.56	86	62-120	
Isopropylbenzene	10.0	10.3	103	77-120	
Methyl tert-butyl ether	10.0	10.0	100	69-121	
Methylene Chloride	10.0	9.62	96	77-129	
m-Xylene & p-Xylene	10.0	10.1	101	80-120	
Naphthalene	10.0	8.70	87	53-121	
n-Butylbenzene	10.0	9.50	95	74-120	
N-Propylbenzene	10.0	11.2	112	79-123	
o-Xylene	10.0	10.1	101	80-120	
sec-Butylbenzene	10.0	10.1	101	77-120	
Styrene	10.0	9.58	96	76-122	
Tetrachloroethene	10.0	9.72	97	78-121	
Toluene	10.0	9.39	94	80-120	
trans-1,2-Dichloroethene	10.0	10.4	104	80-124	
trans-1,3-Dichloropropene	10.0	10.3	103	75-131	
Trichloroethene	10.0	9.95	99	80-121	
Trichlorofluoromethane	10.0	9.26	93	61-133	
Vinyl acetate	10.0	8.39	84	27-160	
Vinyl chloride	10.0	8.44	84	52-121	
Xylenes, Total	20.0	20.2	101	80-120	
tert-Butylbenzene	10.0	10.6	106	77-121	
1,2-Dibromoethane	10.0	9.29	93	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8738.D

Lab ID: 240-54724-11 MS Client ID: WC-DFRAC-082515 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	0.28 U	10.7	107	72-120	
1,1,1-Trichloroethane	10.0	0.44 U	10.2	102	69-122	
1,1,2,2-Tetrachloroethane	10.0	0.22 U	11.2	112	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	0.45 U	9.06	91	44-140	
1,1-Dichloroethane	10.0	0.30 U	11.0	110	73-124	
1,1-Dichloroethene	10.0	0.45 U	9.38	94	67-124	
1,1-Dichloropropene	10.0	0.42 U	11.1	111	81-126	
1,2,3-Trichlorobenzene	10.0	0.37 U	8.44	84	46-120	
1,2,3-Trichloropropane	10.0	0.44 U	11.3	113	58-135	
1,2,4-Trichlorobenzene	10.0	0.32 U	8.96	90	48-120	
1,2,4-Trimethylbenzene	10.0	0.41 U	10.0	100	64-122	
1,2-Dibromo-3-Chloropropane	10.0	0.82 U	10.2	102	42-130	
1,2-Dichlorobenzene	10.0	0.25 U	8.81	88	67-118	
1,2-Dichloroethane	10.0	0.23 U	10.1	101	74-125	
1,2-Dichloropropane	10.0	0.25 U	10.5	105	73-122	
1,3-Dichlorobenzene	10.0	0.19 U	9.64	96	65-120	
1,3-Dichloropropane	10.0	0.19 U	10.1	101	59-133	
1,4-Dichlorobenzene	10.0	0.27 U	9.71	97	66-120	
2,2-Dichloropropane	10.0	0.26 U	10.4	104	48-126	
2-Butanone (MEK)	20.0	1.1 J	20.9	99	49-132	
2-Chloroethyl vinyl ether	10.0	0.59 U	1.28 J	13	10-150	
2-Chlorotoluene	10.0	0.40 U	11.0	110	70-122	
2-Hexanone	20.0	0.48 U	20.9	105	49-142	
4-Chlorotoluene	10.0	0.29 U	11.1	111	74-120	
p-Isopropyltoluene	10.0	0.43 U	9.41	94	61-123	
4-Methyl-2-pentanone (MIBK)	20.0	0.99 U	23.1	115	58-136	
Acetone	20.0	6.2 J	25.7	97	32-126	
Benzene	10.0	0.35 U	10.3	103	73-121	
Bromobenzene	10.0	0.35 U	11.0	110	73-120	
Bromoform	10.0	0.56 U	10.8	108	45-121	
Bromomethane	10.0	0.44 U	7.67	77	26-136	
Carbon disulfide	10.0	0.38 U	10.9	109	54-144	
Carbon tetrachloride	10.0	0.43 U	11.5	115	65-129	
Chlorobenzene	10.0	0.25 U	10.3	103	72-120	
Dibromochloromethane	10.0	0.43 U	10.4	104	62-122	
Chloroethane	10.0	0.32 U	8.02	80	27-131	
Chloroform	10.0	0.25 U	9.91	99	73-121	
Chloromethane	10.0	0.82 J	9.10	83	39-134	
cis-1,2-Dichloroethene	10.0	0.26 U	10.7	107	66-124	
cis-1,3-Dichloropropene	10.0	0.46 U	10.5	105	60-120	
Dibromomethane	10.0	0.42 U	10.0	100	63-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8738.D

Lab ID: 240-54724-11 MS Client ID: WC-DFRAC-082515 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromochloromethane	10.0	0.50 U	10.3	103	60-132	
Dichlorodifluoromethane	10.0	0.32 U	6.83	68	14-137	
Bromodichloromethane	10.0	0.29 U	10.4	104	72-120	
tert-Butyl alcohol (TBA)	100	4.9 U	102	102	70-130	
Ethylbenzene	10.0	0.25 U	10.3	103	68-121	
Hexachlorobutadiene	10.0	0.35 U	7.89	79	48-120	
Isopropylbenzene	10.0	0.35 U	10.5	105	61-122	
Methyl tert-butyl ether	10.0	0.20 U	10.5	105	61-121	
Methylene Chloride	10.0	0.33 U	9.74	97	70-124	
m-Xylene & p-Xylene	10.0	0.24 U	10.4	104	66-123	
Naphthalene	10.0	0.72 J	9.87	91	38-128	
n-Butylbenzene	10.0	0.31 U	8.62	86	54-126	
N-Propylbenzene	10.0	0.40 U	10.9	109	63-129	
o-Xylene	10.0	0.25 U	10.8	108	68-121	
sec-Butylbenzene	10.0	0.48 U	9.65	97	61-123	
Styrene	10.0	0.45 U	10.1	101	64-126	
Tetrachloroethene	10.0	0.31 U	10.2	102	59-125	
Toluene	10.0	0.23 U	9.68	97	72-122	
trans-1,2-Dichloroethene	10.0	0.30 U	10.5	105	72-125	
trans-1,3-Dichloropropene	10.0	0.56 U	10.6	106	58-132	
Trichloroethene	10.0	0.22 U	9.91	99	61-129	
Trichlorofluoromethane	10.0	0.49 U	8.47	85	49-133	
Vinyl acetate	10.0	0.41 U	8.88	89	26-189	
Vinyl chloride	10.0	0.29 U	7.40	74	44-122	
Xylenes, Total	20.0	0.52 U	21.2	106	67-122	
tert-Butylbenzene	10.0	0.41 U	9.86	99	63-122	
1,2-Dibromoethane	10.0	0.32 U	9.88	99	69-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8739.D

Lab ID: 240-54724-11 MSD Client ID: WC-DFRAC-082515 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.3	103	4	22	72-120	
1,1,1-Trichloroethane	10.0	9.92	99	3	14	69-122	
1,1,2,2-Tetrachloroethane	10.0	11.6	116	3	18	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.33	93	3	35	44-140	
1,1-Dichloroethane	10.0	10.6	106	4	14	73-124	
1,1-Dichloroethene	10.0	10.0	100	6	24	67-124	
1,1-Dichloropropene	10.0	10.8	108	3	11	81-126	
1,2,3-Trichlorobenzene	10.0	8.90	89	5	35	46-120	
1,2,3-Trichloropropane	10.0	11.5	115	2	25	58-135	
1,2,4-Trichlorobenzene	10.0	8.68	87	3	28	48-120	
1,2,4-Trimethylbenzene	10.0	10.1	101	1	14	64-122	
1,2-Dibromo-3-Chloropropane	10.0	10.1	101	0	24	42-130	
1,2-Dichlorobenzene	10.0	9.22	92	5	15	67-118	
1,2-Dichloroethane	10.0	9.66	97	5	24	74-125	
1,2-Dichloropropane	10.0	10.2	102	2	15	73-122	
1,3-Dichlorobenzene	10.0	9.41	94	2	15	65-120	
1,3-Dichloropropane	10.0	9.16	92	10	35	59-133	
1,4-Dichlorobenzene	10.0	9.62	96	1	16	66-120	
2,2-Dichloropropane	10.0	10.2	102	2	30	48-126	
2-Butanone (MEK)	20.0	20.1	95	4	19	49-132	
2-Chloroethyl vinyl ether	10.0	0.59 U	0	NC	30	10-150	F1
2-Chlorotoluene	10.0	11.3	113	3	18	70-122	
2-Hexanone	20.0	19.2	96	9	27	49-142	
4-Chlorotoluene	10.0	11.3	113	1	15	74-120	
p-Isopropyltoluene	10.0	9.47	95	1	27	61-123	
4-Methyl-2-pentanone (MIBK)	20.0	21.8	109	5	32	58-136	
Acetone	20.0	24.4	91	5	28	32-126	
Benzene	10.0	9.90	99	4	13	73-121	
Bromobenzene	10.0	11.3	113	3	13	73-120	
Bromoform	10.0	10.4	104	4	19	45-121	
Bromomethane	10.0	8.24	82	7	35	26-136	
Carbon disulfide	10.0	10.9	109	0	34	54-144	
Carbon tetrachloride	10.0	11.4	114	1	20	65-129	
Chlorobenzene	10.0	9.82	98	5	15	72-120	
Dibromochloromethane	10.0	9.76	98	7	19	62-122	
Chloroethane	10.0	8.74	87	9	35	27-131	
Chloroform	10.0	9.39	94	5	17	73-121	
Chloromethane	10.0	10.2	94	11	20	39-134	
cis-1,2-Dichloroethene	10.0	10.1	101	6	22	66-124	
cis-1,3-Dichloropropene	10.0	10.1	101	4	21	60-120	
Dibromomethane	10.0	9.98	100	0	35	63-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8739.D

Lab ID: 240-54724-11 MSD Client ID: WC-DFRAC-082515 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromochloromethane	10.0	9.74	97	5	35	60-132	
Dichlorodifluoromethane	10.0	7.29	73	7	34	14-137	
Bromodichloromethane	10.0	10.0	100	3	19	72-120	
tert-Butyl alcohol (TBA)	100	99.3	99	3	30	70-130	
Ethylbenzene	10.0	10.1	101	2	16	68-121	
Hexachlorobutadiene	10.0	7.51	75	5	34	48-120	
Isopropylbenzene	10.0	10.4	104	1	20	61-122	
Methyl tert-butyl ether	10.0	10.0	100	5	12	61-121	
Methylene Chloride	10.0	9.38	94	4	14	70-124	
m-Xylene & p-Xylene	10.0	10.0	100	3	15	66-123	
Naphthalene	10.0	10.3	95	4	35	38-128	
n-Butylbenzene	10.0	8.91	89	3	33	54-126	
N-Propylbenzene	10.0	11.5	115	5	29	63-129	
o-Xylene	10.0	10.3	103	5	14	68-121	
sec-Butylbenzene	10.0	10.0	100	4	29	61-123	
Styrene	10.0	9.83	98	2	15	64-126	
Tetrachloroethene	10.0	9.45	94	7	20	59-125	
Toluene	10.0	9.03	90	7	15	72-122	
trans-1,2-Dichloroethene	10.0	10.5	105	0	25	72-125	
trans-1,3-Dichloropropene	10.0	9.73	97	8	22	58-132	
Trichloroethene	10.0	9.69	97	2	14	61-129	
Trichlorofluoromethane	10.0	9.23	92	9	25	49-133	
Vinyl acetate	10.0	8.66	87	3	15	26-189	
Vinyl chloride	10.0	8.10	81	9	35	44-122	
Xylenes, Total	20.0	20.3	102	4	14	67-122	
tert-Butylbenzene	10.0	10.5	105	6	24	63-122	
1,2-Dibromoethane	10.0	9.42	94	5	24	69-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD8260 240-193142/4 Date Analyzed: 08/13/2015 13:07

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ8317B.D Heated Purge: (Y/N) N

Calibration ID: 30116

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1483216	5.12	802597	7.78	305058	10.03
UPPER LIMIT		2966432	5.62	1605194	8.28	610116	10.53
LOWER LIMIT		741608	4.62	401299	7.28	152529	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-193142/14		1345281	5.12	739965	7.78	286721	10.03
ICV 240-193142/15		1257324	5.12	719253	7.78	261644	10.03
CCVIS 240-195083/2		1701068	5.12	975525	7.78	342843	10.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCVIS 240-195083/2 Date Analyzed: 08/27/2015 10:26

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ8728.D Heated Purge: (Y/N) N

Calibration ID: 30118

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1701068	5.12	975525	7.78	342843	10.03
UPPER LIMIT		3402136	5.62	1951050	8.28	685686	10.53
LOWER LIMIT		850534	4.62	487763	7.28	171422	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-195083/4		1456738	5.12	852635	7.78	288794	10.03
CCV 240-195083/3		1402332	5.12	827109	7.78	258665	10.03
MB 240-195083/7		1286551	5.12	806001	7.78	260187	10.03
240-54724-12	TB-082515	1209388	5.12	747037	7.78	243456	10.03
240-54724-11	WC-DFRAC-082515	1290415	5.12	773744	7.78	250845	10.03
240-54724-11 MS	WC-DFRAC-082515 MS	1339490	5.12	791331	7.78	288903	10.03
240-54724-11 MSD	WC-DFRAC-082515 MSD	1349202	5.12	801550	7.78	274651	10.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829001.D DFTPP Injection Date: 08/29/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:19

Analysis Batch No.: 195413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.4	
70	Less than 2.0% of mass 69	0.6	(0.8)1
127	25.0 - 75.0% of mass 198	52.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	51.0	
443	15.0 - 24.0% of mass 442	9.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-195413/2	50829002.D	08/29/2015	09:41
	MB 240-195059/23-A	50829003.D	08/29/2015	10:06
	LCS 240-195059/24-A	50829004.D	08/29/2015	10:30
	MB 240-195060/5-A	50829005.D	08/29/2015	10:54
	LCS 240-195060/6-A	50829006.D	08/29/2015	11:19
D-DUP07-082515	240-54724-19	50829007.D	08/29/2015	11:43
D-DUP07-082515 MS	240-54724-19 MS	50829008.D	08/29/2015	12:07
D-DUP07-082515 MSD	240-54724-19 MSD	50829009.D	08/29/2015	12:31
D-VB-D-1-2	240-54724-17	50829010.D	08/29/2015	12:56
D-VB-D-1-2 MS	240-54724-17 MS	50829011.D	08/29/2015	13:20
D-VB-D-1-2 MSD	240-54724-17 MSD	50829012.D	08/29/2015	13:44
D-VS-D-4-1	240-54724-16	50829013.D	08/29/2015	14:09
D-VS-D-3-1	240-54724-15	50829014.D	08/29/2015	14:33
D-VB-F-9-2	240-54724-8	50829015.D	08/29/2015	14:57
D-VS-F-2-1	240-54724-10	50829016.D	08/29/2015	15:22
D-VS-D-1-1	240-54724-13	50829017.D	08/29/2015	15:46
D-VS-D-2-1	240-54724-14	50829018.D	08/29/2015	16:10
D-VB-F-3-2	240-54724-3	50829019.D	08/29/2015	16:34
D-VB-F-4-2	240-54724-4	50829020.D	08/29/2015	16:59
D-VB-D-2-2	240-54724-18	50829021.D	08/29/2015	17:23
D-VB-F-1-2	240-54724-1	50829022.D	08/29/2015	17:47
D-VB-F-2-2	240-54724-2	50829023.D	08/29/2015	18:12
D-VB-F-5-2	240-54724-5	50829024.D	08/29/2015	18:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829001.D DFTPP Injection Date: 08/29/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:19

Analysis Batch No.: 195413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.4	
70	Less than 2.0% of mass 69	0.6	(0.8)1
127	25.0 - 75.0% of mass 198	52.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	51.0	
443	15.0 - 24.0% of mass 442	9.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
D-VB-F-7-2	240-54724-6	50829025.D	08/29/2015	19:00
D-VB-F-8-2	240-54724-7	50829026.D	08/29/2015	19:24
D-VS-F-1-1	240-54724-9	50829027.D	08/29/2015	19:49

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID (1): CCV 240-195413/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/29/2015 09:41

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.90	100.0
Phenol-d5 (Surr)	5.84	100.0
Nitrobenzene-d5 (Surr)	6.65	100.0
Naphthalene	7.31	100.0
2-Fluorobiphenyl (Surr)	8.20	100.0
Acenaphthylene	8.68	100.0
Acenaphthene	8.82	100.0
Fluorene	9.25	100.0
2,4,6-Tribromophenol (Surr)	9.46	100.0
Phenanthrene	10.08	100.0
Anthracene	10.12	100.0
Fluoranthene	11.09	100.0
Pyrene	11.28	100.0
Terphenyl-d14 (Surr)	11.37	100.0
Benzo[a]anthracene	12.29	100.0
Chrysene	12.33	100.0
Benzo[b]fluoranthene	13.41	43.90
Benzo[k]fluoranthene	13.44	100.0
Benzo[a]pyrene	13.84	100.0
Indeno[1,2,3-cd]pyrene	15.65	100.0
Dibenz(a,h)anthracene	15.65	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 | Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.693	2.109		12.5	10.0	24.6*	20.0
Pyridine	Ave	2.930	3.405		11.6	10.0	16.2	20.0
Benzaldehyde	Ave	2.328	2.393	0.0100	20.6	20.0	2.8	20.0
Phenol	Ave	2.775	3.070	0.8000	11.1	10.0	10.6	20.0
Aniline	Ave	3.583	3.814		10.6	10.0	6.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.641	0.7000	10.5	10.0	5.4	20.0
2-Chlorophenol	Ave	1.523	1.507	0.8000	9.89	10.0	-1.1	20.0
n-Decane	Ave	1.999	2.356		11.8	10.0	17.8	20.0
1,3-Dichlorobenzene	Ave	1.630	1.543		9.47	10.0	-5.3	20.0
1,4-Dichlorobenzene	Ave	1.666	1.637		9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	1.232	1.193		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.580	1.511		9.57	10.0	-4.3	20.0
2-Methylphenol	Ave	1.706	1.652	0.7000	9.68	10.0	-3.2	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.787		9.48	10.0	-5.2	20.0
Indene	Ave	3.185	2.995		18.8	20.0	-6.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	2.119	0.5000	10.7	10.0	7.0	20.0
Acetophenone	Ave	2.817	2.702	0.0100	9.59	10.0	-4.1	20.0
3 & 4 Methylphenol	Ave	1.799	1.732		9.63	10.0	-3.7	20.0
Hexachloroethane	Ave	0.8166	0.7830	0.3000	9.59	10.0	-4.1	20.0
Nitrobenzene	Ave	0.7749	0.8018	0.2000	10.3	10.0	3.5	20.0
Isophorone	Ave	1.226	1.296	0.4000	10.6	10.0	5.7	20.0
2-Nitrophenol	Ave	0.1796	0.1866	0.1000	10.4	10.0	3.9	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4877	0.2000	9.97	10.0	-0.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.7283	0.3000	10.8	10.0	7.7	20.0
Benzoic acid	Lin1		0.1694		15.2	20.0	-24.0*	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2818	0.2000	9.20	10.0	-8.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3002		9.23	10.0	-7.7	20.0
Naphthalene	Ave	1.144	1.041	0.7000	9.10	10.0	-9.0	20.0
4-Chloroaniline	Ave	0.4932	0.4570	0.0100	9.27	10.0	-7.3	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2709		9.13	10.0	-8.7	20.0
Hexachlorobutadiene	Ave	0.2017	0.1715	0.0100	8.50	10.0	-15.0	20.0
Caprolactam	Ave	0.1384	0.1476	0.0100	21.3	20.0	6.6	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4047	0.2000	9.68	10.0	-3.2	20.0
2-Methylnaphthalene	Ave	0.7006	0.6443	0.4000	9.20	10.0	-8.0	20.0
1-Methylnaphthalene	Ave	0.6168	0.5583		9.05	10.0	-9.5	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.1825	0.0500	5.50	10.0	-45.0*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5335	0.0100	9.37	10.0	-6.3	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3517	0.2000	9.39	10.0	-6.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3388	0.2000	8.59	10.0	-14.1	20.0
1,1'-Biphenyl	Ave	1.483	1.416	0.0100	9.55	10.0	-4.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.171	1.118	0.8000	9.55	10.0	-4.5	20.0
2-Nitroaniline	Ave	0.6109	0.6983	0.0100	11.4	10.0	14.3	20.0
Dimethyl phthalate	Ave	1.267	1.236	0.0100	9.75	10.0	-2.5	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2287		11.6	10.0	15.9	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2941		10.5	10.0	4.9	20.0
Acenaphthylene	Ave	1.869	1.782	0.9000	9.54	10.0	-4.6	20.0
3-Nitroaniline	Ave	0.3056	0.3210	0.0100	10.5	10.0	5.0	20.0
2,4-Dinitrophenol	Lin1		0.1430	0.0100	19.7	20.0	-1.7	20.0
Acenaphthene	Ave	1.201	1.089	0.9000	9.07	10.0	-9.3	20.0
4-Nitrophenol	Ave	0.2548	0.2372		18.6	20.0	-6.9	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3911	0.2000	10.5	10.0	4.6	20.0
Dibenzofuran	Ave	1.648	1.508	0.8000	9.15	10.0	-8.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.2595	0.0100	8.24	10.0	-17.6	20.0
Diethyl phthalate	Ave	1.245	1.114	0.0100	8.95	10.0	-10.5	20.0
Hexadecane	Ave	1.016	1.053		10.4	10.0	3.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5724	0.4000	9.33	10.0	-6.7	20.0
4-Nitroaniline	Ave	0.2967	0.3170	0.0100	10.7	10.0	6.8	20.0
Fluorene	Ave	1.379	1.226	0.9000	8.89	10.0	-11.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1355	0.0100	22.0	20.0	10.0	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5228	0.0100	18.4	20.0	-8.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.649		10.4	10.0	4.4	20.0
Azobenzene	Ave	1.580	1.649		10.4	10.0	4.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.1869	0.1000	8.75	10.0	-12.5	20.0
Hexachlorobenzene	Ave	0.2114	0.1803	0.1000	8.53	10.0	-14.7	20.0
Atrazine	Ave	0.2132	0.2147	0.0100	20.1	20.0	0.7	20.0
n-Octadecane	Ave	0.6421	0.6970		10.9	10.0	8.5	20.0
Pentachlorophenol	Ave	0.1444	0.1024	0.0500	14.2	20.0	-29.0*	20.0
Phenanthrene	Ave	1.268	1.154	0.7000	9.10	10.0	-9.0	20.0
Anthracene	Ave	1.261	1.174	0.7000	9.31	10.0	-6.9	20.0
Carbazole	Ave	1.050	1.066	0.0100	10.1	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.321	0.0100	10.6	10.0	5.7	20.0
Fluoranthene	Ave	1.280	1.222	0.6000	9.55	10.0	-4.5	20.0
Benzidine	Lin1		0.7168		23.2	20.0	15.8	20.0
Pyrene	Ave	1.153	1.215	0.6000	10.5	10.0	5.4	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5730	0.0100	10.7	10.0	6.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.8037	0.0100	11.0	10.0	9.9	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3871	0.0100	21.5	20.0	7.7	20.0
Benzo[a]anthracene	Ave	1.234	1.210	0.8000	9.80	10.0	-2.0	20.0
Chrysene	Ave	1.158	1.095	0.7000	9.45	10.0	-5.5	20.0
Di-n-octyl phthalate	Ave	1.419	1.678	0.0100	11.8	10.0	18.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.185	1.191	0.7000	10.1	10.0	0.5	20.0
Benzo[k]fluoranthene	Ave	1.198	1.307	0.7000	10.9	10.0	9.1	20.0
Benzo[a]pyrene	Ave	1.128	1.167	0.7000	10.3	10.0	3.4	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.029	0.4000	11.2	10.0	11.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.264	0.5000	10.8	10.0	7.8	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.032	0.5000	10.6	10.0	6.0	20.0
1,4-Dioxane	Ave	0.9857			0.000490	10.0		
2-Fluorophenol (Surr)	Ave	1.750	1.834		10.5	10.0	4.8	20.0
Phenol-d5 (Surr)	Ave	2.475	2.601		10.5	10.0	5.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7775		10.0	10.0	0.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.203		9.21	10.0	-7.9	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.0977		7.51	10.0	-24.9*	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7417		10.1	10.0	0.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829003.D Lab Sample ID: MB 240-195059/23-A

Matrix: Solid Date Extracted: 08/27/2015 08:14

Instrument ID: A4HP9 Date Analyzed: 08/29/2015 10:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195059/24-A	50829004.D	08/29/2015 10:30
D-VB-D-1-2	240-54724-17	50829010.D	08/29/2015 12:56
D-VB-D-1-2 MS	240-54724-17 MS	50829011.D	08/29/2015 13:20
D-VB-D-1-2 MSD	240-54724-17 MSD	50829012.D	08/29/2015 13:44
D-VS-D-4-1	240-54724-16	50829013.D	08/29/2015 14:09
D-VS-D-3-1	240-54724-15	50829014.D	08/29/2015 14:33
D-VB-F-9-2	240-54724-8	50829015.D	08/29/2015 14:57
D-VS-F-2-1	240-54724-10	50829016.D	08/29/2015 15:22
D-VS-D-1-1	240-54724-13	50829017.D	08/29/2015 15:46
D-VS-D-2-1	240-54724-14	50829018.D	08/29/2015 16:10
D-VB-F-3-2	240-54724-3	50829019.D	08/29/2015 16:34
D-VB-F-4-2	240-54724-4	50829020.D	08/29/2015 16:59
D-VB-F-1-2	240-54724-1	50829022.D	08/29/2015 17:47
D-VB-F-2-2	240-54724-2	50829023.D	08/29/2015 18:12
D-VB-F-5-2	240-54724-5	50829024.D	08/29/2015 18:36
D-VB-F-7-2	240-54724-6	50829025.D	08/29/2015 19:00
D-VB-F-8-2	240-54724-7	50829026.D	08/29/2015 19:24
D-VS-F-1-1	240-54724-9	50829027.D	08/29/2015 19:49

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195059/23-A

Matrix: Solid | Lab File ID: 50829003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	105		36-110
4165-62-2	Phenol-d5 (Surr)	91		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	79		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829005.D Lab Sample ID: MB 240-195060/5-A

Matrix: Solid Date Extracted: 08/27/2015 08:19

Instrument ID: A4HP9 Date Analyzed: 08/29/2015 10:54

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195060/6-A	50829006.D	08/29/2015 11:19
D-DUP07-082515	240-54724-19	50829007.D	08/29/2015 11:43
D-DUP07-082515 MS	240-54724-19 MS	50829008.D	08/29/2015 12:07
D-DUP07-082515 MSD	240-54724-19 MSD	50829009.D	08/29/2015 12:31
D-VB-D-2-2	240-54724-18	50829021.D	08/29/2015 17:23

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195060/5-A

Matrix: Solid | Lab File ID: 50829005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VB-F-1-2	240-54724-1	70	74	64	69	18	82
D-VB-F-2-2	240-54724-2	68	72	61	71	33	87
D-VB-F-3-2	240-54724-3	83	85	70	70	40	96
D-VB-F-4-2	240-54724-4	83	85	72	71	34	91
D-VB-F-5-2	240-54724-5	68	75	58	68	22	92
D-VB-F-7-2	240-54724-6	68	76	56	65	20	80
D-VB-F-8-2	240-54724-7	70	79	60	68	41	89
D-VB-F-9-2	240-54724-8	79	83	70	70	54	94
D-VS-F-1-1	240-54724-9	72	78	62	69	23	90
D-VS-F-2-1	240-54724-10	71	76	64	65	27	86
D-VS-D-1-1	240-54724-13	78	81	70	70	36	86
D-VS-D-2-1	240-54724-14	83	87	72	72	46	93
D-VS-D-3-1	240-54724-15	76	81	69	69	41	84
D-VS-D-4-1	240-54724-16	76	81	66	65	43	81
D-VB-D-1-2	240-54724-17	80	85	69	69	44	87
D-VB-D-2-2	240-54724-18	84	84	78	80	32	94
D-DUP07-082515	240-54724-19	79	85	74	74	52	96
	MB 240-195059/23-A	82	91	79	79	41	105
	MB 240-195060/5-A	70	81	70	71	18	88
	LCS 240-195059/24-A	87	92	83	74	35	89
	LCS 240-195060/6-A	81	82	76	69	35	86
D-VB-D-1-2 MS	240-54724-17 MS	76	79	71	67	46	77
D-DUP07-082515 MS	240-54724-19 MS	63	67	59	59	60	90
D-VB-D-1-2 MSD	240-54724-17 MSD	75	80	69	66	50	87
D-DUP07-082515 MSD	240-54724-19 MSD	82	85	79	73	58	92

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829004.D

Lab ID: LCS 240-195059/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	491	74	38-110	
Acenaphthylene	667	497	75	40-110	
Anthracene	667	518	78	48-110	
Benzo[a]anthracene	667	531	80	50-110	
Benzo[a]pyrene	667	584	88	44-110	
Benzo[b]fluoranthene	667	573	86	43-110	
Benzo[g,h,i]perylene	667	587	88	51-110	
Benzo[k]fluoranthene	667	590	89	38-105	
Chrysene	667	547	82	50-110	
Dibenz(a,h)anthracene	667	606	91	51-110	
Fluoranthene	667	524	79	51-110	
Fluorene	667	473	71	46-110	
Indeno[1,2,3-cd]pyrene	667	594	89	50-110	
Naphthalene	667	516	77	36-110	
Phenanthrene	667	514	77	49-110	
Pyrene	667	578	87	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829006.D

Lab ID: LCS 240-195060/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	474	71	38-110	
Acenaphthylene	667	475	71	40-110	
Anthracene	667	499	75	48-110	
Benzo[a]anthracene	667	520	78	50-110	
Benzo[a]pyrene	667	561	84	44-110	
Benzo[b]fluoranthene	667	566	85	43-110	
Benzo[g,h,i]perylene	667	576	86	51-110	
Benzo[k]fluoranthene	667	592	89	38-105	
Chrysene	667	554	83	50-110	
Dibenz(a,h)anthracene	667	617	92	51-110	
Fluoranthene	667	520	78	51-110	
Fluorene	667	463	69	46-110	
Indeno[1,2,3-cd]pyrene	667	592	89	50-110	
Naphthalene	667	474	71	36-110	
Phenanthrene	667	491	74	49-110	
Pyrene	667	562	84	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829011.D

Lab ID: 240-54724-17 MS Client ID: D-VB-D-1-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	809	0.93 U	558	69	22-110	
Acenaphthylene	809	0.43 U	577	71	24-110	
Anthracene	809	0.95 U	575	71	20-110	
Benzo[a]anthracene	809	9.3	588	72	10-122	
Benzo[a]pyrene	809	9.8	610	74	10-110	
Benzo[b]fluoranthene	809	16	617	74	12-118	
Benzo[g,h,i]perylene	809	9.8	633	77	10-117	
Benzo[k]fluoranthene	809	4.8 J	608	75	10-121	
Chrysene	809	12	601	73	10-125	
Dibenz(a,h)anthracene	809	0.80 U	676	84	14-113	
Fluoranthene	809	17	602	72	10-110	
Fluorene	809	0.65 U	543	67	23-110	
Indeno[1,2,3-cd]pyrene	809	6.5 J	650	80	10-114	
Naphthalene	809	13	566	68	10-111	
Phenanthrene	809	15	577	69	10-166	
Pyrene	809	15	642	77	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829012.D

Lab ID: 240-54724-17 MSD Client ID: D-VB-D-1-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	815	557	68	0	99	22-110	
Acenaphthylene	815	571	70	1	99	24-110	
Anthracene	815	626	77	9	99	20-110	
Benzo[a]anthracene	815	670	81	13	99	10-122	
Benzo[a]pyrene	815	682	82	11	99	10-110	
Benzo[b]fluoranthene	815	714	86	15	99	12-118	
Benzo[g,h,i]perylene	815	705	85	11	99	10-117	
Benzo[k]fluoranthene	815	673	82	10	99	10-121	
Chrysene	815	689	83	14	99	10-125	
Dibenz(a,h)anthracene	815	738	91	9	99	14-113	
Fluoranthene	815	663	79	10	99	10-110	
Fluorene	815	579	71	7	99	23-110	
Indeno[1,2,3-cd]pyrene	815	717	87	10	99	10-114	
Naphthalene	815	544	65	4	99	10-111	
Phenanthrene	815	626	75	8	99	10-166	
Pyrene	815	727	87	12	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829008.D

Lab ID: 240-54724-19 MS Client ID: D-DUP07-082515 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	829	5.5 J	553	66	22-110	
Acenaphthylene	829	0.43 U	560	68	24-110	
Anthracene	829	13	669	79	20-110	
Benzo[a]anthracene	829	28	697	81	10-122	
Benzo[a]pyrene	829	23	729	85	10-110	
Benzo[b]fluoranthene	829	30	739	86	12-118	
Benzo[g,h,i]perylene	829	15	765	90	10-117	
Benzo[k]fluoranthene	829	17	740	87	10-121	
Chrysene	829	31	724	84	10-125	
Dibenz(a,h)anthracene	829	0.81 U	792	95	14-113	
Fluoranthene	829	72	749	82	10-110	
Fluorene	829	5.9 J	590	71	23-110	
Indeno[1,2,3-cd]pyrene	829	12	779	92	10-114	
Naphthalene	829	7.3 J	475	56	10-111	
Phenanthrene	829	55	704	78	10-166	
Pyrene	829	60	770	86	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829009.D

Lab ID: 240-54724-19 MSD Client ID: D-DUP07-082515 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	813	612	75	10	99	22-110	
Acenaphthylene	813	621	76	10	99	24-110	
Anthracene	813	663	80	1	99	20-110	
Benzo[a]anthracene	813	704	83	1	99	10-122	
Benzo[a]pyrene	813	702	83	4	99	10-110	
Benzo[b]fluoranthene	813	757	89	2	99	12-118	
Benzo[g,h,i]perylene	813	753	91	1	99	10-117	
Benzo[k]fluoranthene	813	682	82	8	99	10-121	
Chrysene	813	717	84	1	99	10-125	
Dibenz(a,h)anthracene	813	785	97	1	99	14-113	
Fluoranthene	813	721	80	4	99	10-110	
Fluorene	813	612	75	4	99	23-110	
Indeno[1,2,3-cd]pyrene	813	749	91	4	99	10-114	
Naphthalene	813	602	73	24	99	10-111	
Phenanthrene	813	689	78	2	99	10-166	
Pyrene	813	774	88	1	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-195413/2 CCVIS		146822	6.17	586801	7.29	315463	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-195413/2 CCVIS		509104	10.05	531332	12.30	450749	13.91

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195413/2 Date Analyzed: 08/29/2015 09:41

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50829002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		146822	6.17	586801	7.29	315463	8.79
UPPER LIMIT		293644	6.67	1173602	7.79	630926	9.29
LOWER LIMIT		73411	5.67	293401	6.79	157732	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-195059/23-A		121180	6.17	468221	7.29	258149	8.79
LCS 240-195059/24-A		118290	6.17	490542	7.29	274862	8.79
MB 240-195060/5-A		123410	6.17	487065	7.29	267087	8.79
LCS 240-195060/6-A		122046	6.17	496582	7.30	274286	8.79
240-54724-19	D-DUP07-082515	119729	6.17	464778	7.29	252750	8.79
240-54724-19 MS	D-DUP07-082515 MS	121016	6.17	493280	7.29	275816	8.79
240-54724-19 MSD	D-DUP07-082515 MSD	121990	6.17	481889	7.30	266485	8.80
240-54724-17	D-VB-D-1-2	123117	6.17	505214	7.29	276422	8.79
240-54724-17 MS	D-VB-D-1-2 MS	128558	6.17	515101	7.29	284646	8.79
240-54724-17 MSD	D-VB-D-1-2 MSD	132170	6.17	539229	7.29	306116	8.79
240-54724-16	D-VS-D-4-1	125086	6.17	509450	7.29	286853	8.79
240-54724-15	D-VS-D-3-1	124750	6.17	487353	7.29	267628	8.79
240-54724-8	D-VB-F-9-2	130281	6.17	511012	7.29	275325	8.79
240-54724-10	D-VS-F-2-1	126451	6.17	501401	7.30	274413	8.79
240-54724-13	D-VS-D-1-1	120755	6.17	488420	7.29	264766	8.79
240-54724-14	D-VS-D-2-1	123459	6.17	491306	7.29	271820	8.79
240-54724-3	D-VB-F-3-2	133004	6.17	549198	7.29	304649	8.79
240-54724-4	D-VB-F-4-2	130548	6.17	518747	7.29	291973	8.79
240-54724-18	D-VB-D-2-2	120761	6.17	473407	7.29	259327	8.79
240-54724-1	D-VB-F-1-2	126447	6.17	497693	7.29	271022	8.79
240-54724-2	D-VB-F-2-2	125172	6.17	478622	7.29	260494	8.79
240-54724-5	D-VB-F-5-2	127808	6.17	509795	7.29	283474	8.79
240-54724-6	D-VB-F-7-2	131582	6.17	522919	7.29	293294	8.79
240-54724-7	D-VB-F-8-2	138477	6.17	549756	7.29	309752	8.79
240-54724-9	D-VS-F-1-1	135317	6.17	535878	7.29	291888	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195413/2 Date Analyzed: 08/29/2015 09:41

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50829002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		509104	10.05	531332	12.30	450749	13.91
UPPER LIMIT		1018208	10.55	1062664	12.80	901498	14.41
LOWER LIMIT		254552	9.55	265666	11.80	225375	13.41
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-195059/23-A		412192	10.05	425164	12.30	350570	13.91
LCS 240-195059/24-A		432380	10.05	460307	12.30	381255	13.91
MB 240-195060/5-A		428865	10.05	436772	12.30	358410	13.91
LCS 240-195060/6-A		437408	10.05	467111	12.30	381539	13.91
240-54724-19	D-DUP07-082515	421767	10.05	457076	12.30	378760	13.91
240-54724-19 MS	D-DUP07-082515 MS	443165	10.05	481660	12.30	424383	13.91
240-54724-19 MSD	D-DUP07-082515 MSD	440477	10.05	454722	12.30	413016	13.91
240-54724-17	D-VB-D-1-2	442762	10.05	473513	12.30	410256	13.91
240-54724-17 MS	D-VB-D-1-2 MS	459777	10.05	495820	12.30	443725	13.91
240-54724-17 MSD	D-VB-D-1-2 MSD	489885	10.05	519069	12.30	467209	13.91
240-54724-16	D-VS-D-4-1	460879	10.05	486288	12.30	432381	13.91
240-54724-15	D-VS-D-3-1	425411	10.05	449688	12.30	401419	13.91
240-54724-8	D-VB-F-9-2	454449	10.05	487475	12.30	413755	13.91
240-54724-10	D-VS-F-2-1	434052	10.05	452957	12.30	411009	13.91
240-54724-13	D-VS-D-1-1	421436	10.05	456407	12.30	397693	13.91
240-54724-14	D-VS-D-2-1	445305	10.05	473983	12.30	421345	13.91
240-54724-3	D-VB-F-3-2	497003	10.05	524308	12.30	431672	13.91
240-54724-4	D-VB-F-4-2	480539	10.05	520067	12.30	428213	13.91
240-54724-18	D-VB-D-2-2	417576	10.05	449309	12.30	415887	13.91
240-54724-1	D-VB-F-1-2	439449	10.05	474389	12.30	432542	13.91
240-54724-2	D-VB-F-2-2	430937	10.05	468240	12.30	444443	13.91
240-54724-5	D-VB-F-5-2	477744	10.05	519175	12.30	445481	13.91
240-54724-6	D-VB-F-7-2	477753	10.05	541161	12.30	484960	13.91
240-54724-7	D-VB-F-8-2	498674	10.05	566527	12.30	502956	13.91
240-54724-9	D-VS-F-1-1	489939	10.05	544436	12.30	479197	13.91

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-194251/4 IC		08/23/2015 13:03	1		CLP-1 0.53(mm)
STD005 240-194251/4 IC		08/23/2015 13:03	1	P1100004.D	CLP-2 0.53(mm)
STD01 240-194251/5 IC		08/23/2015 13:22	1		CLP-1 0.53(mm)
STD01 240-194251/5 IC		08/23/2015 13:22	1	P1100005.D	CLP-2 0.53(mm)
STD02 240-194251/6 IC		08/23/2015 13:40	1		CLP-1 0.53(mm)
STD02 240-194251/6 IC		08/23/2015 13:40	1	P1100006.D	CLP-2 0.53(mm)
STD05 240-194251/7 IC		08/23/2015 13:58	1		CLP-1 0.53(mm)
STD05 240-194251/7 IC		08/23/2015 13:58	1	P1100007.D	CLP-2 0.53(mm)
STD1 240-194251/8 IC		08/23/2015 14:16	1		CLP-1 0.53(mm)
STD1 240-194251/8 IC		08/23/2015 14:16	1	P1100008.D	CLP-2 0.53(mm)
STD2 240-194251/9 IC		08/23/2015 14:35	1		CLP-1 0.53(mm)
STD2 240-194251/9 IC		08/23/2015 14:35	1	P1100009.D	CLP-2 0.53(mm)
STD005 240-194251/10 IC		08/23/2015 14:53	1		CLP-1 0.53(mm)
STD005 240-194251/10 IC		08/23/2015 14:53	1	P1100010.D	CLP-2 0.53(mm)
STD01 240-194251/11 IC		08/23/2015 15:11	1		CLP-1 0.53(mm)
STD01 240-194251/11 IC		08/23/2015 15:11	1	P1100011.D	CLP-2 0.53(mm)
STD02 240-194251/12 IC		08/23/2015 15:29	1		CLP-1 0.53(mm)
STD02 240-194251/12 IC		08/23/2015 15:29	1	P1100012.D	CLP-2 0.53(mm)
STD05 240-194251/13 IC		08/23/2015 15:47	1		CLP-1 0.53(mm)
STD05 240-194251/13 IC		08/23/2015 15:47	1	P1100013.D	CLP-2 0.53(mm)
STD1 240-194251/14 IC		08/23/2015 16:06	1		CLP-1 0.53(mm)
STD1 240-194251/14 IC		08/23/2015 16:06	1	P1100014.D	CLP-2 0.53(mm)
STD005 240-194251/16 IC		08/23/2015 16:42	1		CLP-1 0.53(mm)
STD005 240-194251/16 IC		08/23/2015 16:42	1	P1100016.D	CLP-2 0.53(mm)
STD01 240-194251/17 IC		08/23/2015 17:00	1		CLP-1 0.53(mm)
STD01 240-194251/17 IC		08/23/2015 17:00	1	P1100017.D	CLP-2 0.53(mm)
STD02 240-194251/18 IC		08/23/2015 17:19	1		CLP-1 0.53(mm)
STD02 240-194251/18 IC		08/23/2015 17:19	1	P1100018.D	CLP-2 0.53(mm)
STD05 240-194251/19 IC		08/23/2015 17:37	1		CLP-1 0.53(mm)
STD05 240-194251/19 IC		08/23/2015 17:37	1	P1100019.D	CLP-2 0.53(mm)
STD1 240-194251/20 IC		08/23/2015 17:55	1		CLP-1 0.53(mm)
STD1 240-194251/20 IC		08/23/2015 17:55	1	P1100020.D	CLP-2 0.53(mm)
STD2 240-194251/21 IC		08/23/2015 18:13	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD2 240-194251/21 IC		08/23/2015 18:13	1	P1100021.D	CLP-2 0.53(mm)
STD005 240-194251/22 IC		08/23/2015 18:31	1		CLP-1 0.53(mm)
STD005 240-194251/22 IC		08/23/2015 18:31	1	P1100022.D	CLP-2 0.53(mm)
STD01 240-194251/23 IC		08/23/2015 18:50	1		CLP-1 0.53(mm)
STD01 240-194251/23 IC		08/23/2015 18:50	1	P1100023.D	CLP-2 0.53(mm)
STD02 240-194251/24 IC		08/23/2015 19:08	1		CLP-1 0.53(mm)
STD02 240-194251/24 IC		08/23/2015 19:08	1	P1100024.D	CLP-2 0.53(mm)
STD05 240-194251/25 IC		08/23/2015 19:26	1		CLP-1 0.53(mm)
STD05 240-194251/25 IC		08/23/2015 19:26	1	P1100025.D	CLP-2 0.53(mm)
STD1 240-194251/26 IC		08/23/2015 19:44	1		CLP-1 0.53(mm)
STD1 240-194251/26 IC		08/23/2015 19:44	1	P1100026.D	CLP-2 0.53(mm)
STD2 240-194251/27 IC		08/23/2015 20:03	1		CLP-1 0.53(mm)
STD2 240-194251/27 IC		08/23/2015 20:03	1	P1100027.D	CLP-2 0.53(mm)
STD005 240-194251/28 IC		08/23/2015 20:21	1		CLP-1 0.53(mm)
STD005 240-194251/28 IC		08/23/2015 20:21	1	P1100028.D	CLP-2 0.53(mm)
STD01 240-194251/29 IC		08/23/2015 20:39	1		CLP-1 0.53(mm)
STD01 240-194251/29 IC		08/23/2015 20:39	1	P1100029.D	CLP-2 0.53(mm)
STD02 240-194251/30 IC		08/23/2015 20:57	1		CLP-1 0.53(mm)
STD02 240-194251/30 IC		08/23/2015 20:57	1	P1100030.D	CLP-2 0.53(mm)
STD05 240-194251/31 ICIS		08/23/2015 21:15	1		CLP-1 0.53(mm)
STD05 240-194251/31 ICIS		08/23/2015 21:15	1	P1100031.D	CLP-2 0.53(mm)
STD1 240-194251/32 IC		08/23/2015 21:34	1		CLP-1 0.53(mm)
STD1 240-194251/32 IC		08/23/2015 21:34	1	P1100032.D	CLP-2 0.53(mm)
STD2 240-194251/33 IC		08/23/2015 21:52	1		CLP-1 0.53(mm)
STD2 240-194251/33 IC		08/23/2015 21:52	1	P1100033.D	CLP-2 0.53(mm)
ICV 240-194251/34		08/23/2015 22:10	1		CLP-1 0.53(mm)
ICV 240-194251/34		08/23/2015 22:10	1		CLP-2 0.53(mm)
ICV 240-194251/35		08/23/2015 22:28	1		CLP-1 0.53(mm)
ICV 240-194251/35		08/23/2015 22:28	1		CLP-2 0.53(mm)
ICV 240-194251/36		08/23/2015 22:47	1		CLP-1 0.53(mm)
ICV 240-194251/36		08/23/2015 22:47	1		CLP-2 0.53(mm)
ICV 240-194251/37		08/23/2015 23:05	1		CLP-1 0.53(mm)
ICV 240-194251/37		08/23/2015 23:05	1		CLP-2 0.53(mm)
ICV 240-194251/38		08/23/2015 23:23	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-194251/38		08/23/2015 23:23	1		CLP-2 0.53(mm)
ICV 240-194251/39		08/23/2015 23:41	1		CLP-1 0.53(mm)
ICV 240-194251/39		08/23/2015 23:41	1	P1100039.D	CLP-2 0.53(mm)
ICV 240-194251/41		08/24/2015 00:18	1		CLP-1 0.53(mm)
ICV 240-194251/41		08/24/2015 00:18	1		CLP-2 0.53(mm)
ICV 240-194251/40		08/24/2015 23:59	1		CLP-1 0.53(mm)
ICV 240-194251/40		08/24/2015 23:59	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/30/2015 17:26

Analysis Batch Number: 195464 End Date: 08/30/2015 19:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-195464/3 CCVIS		08/30/2015 17:26	1		CLP-1 0.53(mm)
CCV 240-195464/3 CCVIS		08/30/2015 17:26	1	P1100003.D	CLP-2 0.53(mm)
CCV 240-195464/4		08/30/2015 17:44	1		CLP-1 0.53(mm)
CCV 240-195464/4		08/30/2015 17:44	1	P1100004.D	CLP-2 0.53(mm)
CCV 240-195464/5		08/30/2015 18:02	1		CLP-1 0.53(mm)
CCV 240-195464/5		08/30/2015 18:02	1	P1100005.D	CLP-2 0.53(mm)
CCV 240-195464/6		08/30/2015 18:20	1		CLP-1 0.53(mm)
CCV 240-195464/6		08/30/2015 18:20	1	P1100006.D	CLP-2 0.53(mm)
CCV 240-195464/7		08/30/2015 18:39	1		CLP-1 0.53(mm)
CCV 240-195464/7		08/30/2015 18:39	1	P1100007.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:15	1		CLP-1 0.53(mm)
240-54724-11	WC-DFRAC-082515	08/30/2015 19:15	1	P1100009.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:33	1		CLP-1 0.53(mm)
MB 240-195418/2-A		08/30/2015 19:33	1	P1100010.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:51	1		CLP-1 0.53(mm)
LCS 240-195418/3-A		08/30/2015 19:51	1	P1100011.D	CLP-2 0.53(mm)

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 13:03 Calibration End Date: 08/23/2015 14:35 Calibration ID: 30249

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/4	P1100004.D
Level 2	STD01 240-194251/5	P1100005.D
Level 3	STD02 240-194251/6	P1100006.D
Level 4	STD05 240-194251/7	P1100007.D
Level 5	STD1 240-194251/8	P1100008.D
Level 6	STD2 240-194251/9	P1100009.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0271 0.0204	0.0251	0.0231	0.0233	0.0210	Lin1	0.0004	0.0206							0.9980		0.9900
PCB-1232 Peak 2	0.0197 0.0159	0.0202	0.0185	0.0186	0.0166	Lin1	0.0003	0.0163							0.9970		0.9900
PCB-1232 Peak 3	0.0406 0.0355	0.0388	0.0363	0.0383	0.0358	Lin1	0.0003	0.0357							0.9990		0.9900
PCB-1232 Peak 4	0.0167 0.0147	0.0160	0.0151	0.0170	0.0154	Lin1	0.0001	0.0151							0.9970		0.9900
PCB-1232 Peak 5	0.0133 0.0100	0.0130	0.0119	0.0115	0.0104	Lin1	0.0002	0.0101							0.9980		0.9900
PCB-1262 Peak 1	0.0509 0.0415	0.0474	0.0448	0.0461	0.0424	Lin1	0.0006	0.0419							0.9990		0.9900
PCB-1262 Peak 2	0.0720 0.0621	0.0681	0.0628	0.0668	0.0623	Lin1	0.0005	0.0623							0.9990		0.9900
PCB-1262 Peak 3	0.0701 0.0606	0.0659	0.0625	0.0648	0.0608	Lin1	0.0005	0.0607							0.9990		0.9900
PCB-1262 Peak 4	0.1279 0.1248	0.1240	0.1204	0.1250	0.1224	Lin1	0	0.1239							1.0000		0.9900
PCB-1262 Peak 5	0.0925 0.0860	0.0893	0.0853	0.0869	0.0848	Lin1	0.0003	0.0854							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 13:03 Calibration End Date: 08/23/2015 14:35 Calibration ID: 30249

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/4	P1100004.D
Level 2	STD01 240-194251/5	P1100005.D
Level 3	STD02 240-194251/6	P1100006.D
Level 4	STD05 240-194251/7	P1100007.D
Level 5	STD1 240-194251/8	P1100008.D
Level 6	STD2 240-194251/9	P1100009.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	2655461 77580162	4908221	9067696	21581143	40248747	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	1930012 60648088	3952915	7259208	17252701	31867952	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	3972848 135024559	7580215	14220820	35457669	68756022	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	1639720 56129870	3137715	5911148	15801653	29480744	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	1303623 38138145	2538340	4641916	10664032	19892168	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	4986418 158174338	9277872	17535417	42689699	81280317	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	7054682 236646750	13308679	24605331	61868550	119555185	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	6860501 230612617	12890349	24475153	60096065	116591923	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	12530416 475145734	24245256	47164510	115879935	234723880	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	9059042 327353909	17460611	33401336	80550755	162664653	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 16:42 Calibration End Date: 08/23/2015 18:13 Calibration ID: 30261

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/16	P1100016.D
Level 2	STD01 240-194251/17	P1100017.D
Level 3	STD02 240-194251/18	P1100018.D
Level 4	STD05 240-194251/19	P1100019.D
Level 5	STD1 240-194251/20	P1100020.D
Level 6	STD2 240-194251/21	P1100021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0195 0.0149	0.0179	0.0171	0.0151	0.0152	Lin1	0.0003	0.0148							1.0000		0.9900
PCB-1248 Peak 2	0.0494 0.0437	0.0461	0.0433	0.0412	0.0429	Lin1	0.0002	0.0429							0.9990		0.9900
PCB-1248 Peak 3	0.0407 0.0331	0.0371	0.0345	0.0321	0.0330	Lin1	0.0004	0.0326							1.0000		0.9900
PCB-1248 Peak 4	0.0619 0.0423	0.0517	0.0440	0.0414	0.0419	Lin1	0.0009	0.0412							0.9990		0.9900
PCB-1248 Peak 5	0.0268 0.0226	0.0256	0.0237	0.0221	0.0225	Lin1	0.0002	0.0223							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 18:31 Calibration End Date: 08/23/2015 20:03 Calibration ID: 30267

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/22	P1100022.D
Level 2	STD01 240-194251/23	P1100023.D
Level 3	STD02 240-194251/24	P1100024.D
Level 4	STD05 240-194251/25	P1100025.D
Level 5	STD1 240-194251/26	P1100026.D
Level 6	STD2 240-194251/27	P1100027.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0127 0.0092	0.0132	0.0113	0.0109	0.0105	Lin1	0.0003	0.0096							0.9940		0.9900
PCB-1221 Peak 2	0.0090 0.0061	0.0088	0.0076	0.0073	0.0069	Lin1	0.0002	0.0063							0.9940		0.9900
PCB-1221 Peak 3	0.0322 0.0230	0.0318	0.0272	0.0266	0.0258	Lin1	0.0006	0.0238							0.9960		0.9900
PCB-1254 Peak 1	0.0521 0.0343	0.0481	0.0400	0.0392	0.0379	Lin1	0.0011	0.0351							0.9970		0.9900
PCB-1254 Peak 2	0.0519 0.0408	0.0522	0.0455	0.0454	0.0450	Lin1	0.0007	0.0420							0.9970		0.9900
PCB-1254 Peak 3	0.0773 0.0641	0.0651	0.0689	0.0702	0.0705	Lin1	0.0005	0.0662							0.9970		0.9900
PCB-1254 Peak 4	0.0532 0.0450	0.0530	0.0485	0.0487	0.0491	Lin1	0.0005	0.0462							0.9980		0.9900
PCB-1254 Peak 5	0.0764 0.0617	0.0730	0.0637	0.0670	0.0675	Lin1	0.0008	0.0633							0.9980		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 20:21 Calibration End Date: 08/23/2015 21:52 Calibration ID: 30273

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/28	P1100028.D
Level 2	STD01 240-194251/29	P1100029.D
Level 3	STD02 240-194251/30	P1100030.D
Level 4	STD05 240-194251/31	P1100031.D
Level 5	STD1 240-194251/32	P1100032.D
Level 6	STD2 240-194251/33	P1100033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0245 0.0177	0.0230	0.0190	0.0182	0.0167	Lin1	0.0004	0.0171							0.9990		0.9900
PCB-1016 Peak 2	0.0436 0.0330	0.0427	0.0357	0.0345	0.0317	Lin1	0.0007	0.0323							0.9990		0.9900
PCB-1016 Peak 3	0.0885 0.0814	0.0884	0.0781	0.0802	0.0763	Lin1	0.0004	0.0794							0.9990		0.9900
PCB-1016 Peak 4	0.0359 0.0319	0.0357	0.0302	0.0322	0.0301	Lin1	0.0002	0.0312							0.9990		0.9900
PCB-1016 Peak 5	0.0333 0.0244	0.0304	0.0260	0.0248	0.0234	Lin1	0.0005	0.0237							0.9990		0.9900
PCB-1260 Peak 1	0.0631 0.0508	0.0602	0.0512	0.0508	0.0476	Lin1	0.0007	0.0493							0.9990		0.9900
PCB-1260 Peak 2	0.0650 0.0555	0.0633	0.0554	0.0555	0.0525	Lin1	0.0006	0.0542							0.9990		0.9900
PCB-1260 Peak 3	0.0966 0.0844	0.0942	0.0817	0.0841	0.0795	Lin1	0.0007	0.0823							0.9990		0.9900
PCB-1260 Peak 4	0.1067 0.1027	0.1063	0.0969	0.0996	0.0966	Lin1	0.0002	0.1003							0.9990		0.9900
PCB-1260 Peak 5	0.0787 0.0713	0.0779	0.0698	0.0706	0.0678	Lin1	0.0005	0.0698							0.9990		0.9900
Tetrachloro-m-xylene	1.1661 1.1883	1.2290	1.0741	1.0865	1.0882	Lin1	0	1.1456							0.9970		0.9900
DCB Decachlorobiphenyl	0.9724 0.8163	0.9713	0.8406	0.7978	0.7812	Lin1	0.0005	0.7957							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-194251/39 Calibration Date: 08/23/2015 23:41

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100039.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0162		0.921	1.00	-7.9	20.0
PCB-1016 Peak 2	Lin1		0.0322		0.975	1.00	-2.5	20.0
PCB-1016 Peak 3	Lin1		0.0790		0.989	1.00	-1.1	20.0
PCB-1016 Peak 4	Lin1		0.0308		0.978	1.00	-2.2	20.0
PCB-1016 Peak 5	Lin1		0.0236		0.974	1.00	-2.6	20.0
PCB-1260 Peak 1	Lin1		0.0502		1.00	1.00	0.5	20.0
PCB-1260 Peak 2	Lin1		0.0560		1.02	1.00	2.3	20.0
PCB-1260 Peak 3	Lin1		0.0886		1.07	1.00	6.8	20.0
PCB-1260 Peak 4	Lin1		0.0980		0.975	1.00	-2.5	20.0
PCB-1260 Peak 5	Lin1		0.0700		0.996	1.00	-0.4	20.0
Tetrachloro-m-xylene	Lin1		1.039		0.0454	0.0500	-9.2	20.0
DCB Decachlorobiphenyl	Lin1		0.7733		0.0479	0.0500	-4.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-194251/39 Calibration Date: 08/23/2015 23:41

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100039.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.68	5.65	5.71
PCB-1016 Peak 2	6.21	6.18	6.24
PCB-1016 Peak 3	6.79	6.76	6.82
PCB-1016 Peak 4	6.95	6.92	6.98
PCB-1016 Peak 5	7.53	7.50	7.56
PCB-1260 Peak 1	9.04	9.01	9.07
PCB-1260 Peak 2	9.29	9.26	9.32
PCB-1260 Peak 3	9.70	9.67	9.73
PCB-1260 Peak 4	10.44	10.41	10.47
PCB-1260 Peak 5	10.83	10.80	10.86
Tetrachloro-m-xylene	4.99	4.96	5.02
DCB Decachlorobiphenyl	11.93	11.90	11.96

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/3 Calibration Date: 08/30/2015 17:26

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0171		0.474	0.500	-5.1	20.0
PCB-1016 Peak 2	Lin1		0.0323		0.477	0.500	-4.5	20.0
PCB-1016 Peak 3	Lin1		0.0753		0.469	0.500	-6.3	20.0
PCB-1016 Peak 4	Lin1		0.0298		0.470	0.500	-6.0	20.0
PCB-1016 Peak 5	Lin1		0.0234		0.471	0.500	-5.9	20.0
PCB-1260 Peak 1	Lin1		0.0474		0.466	0.500	-6.7	20.0
PCB-1260 Peak 2	Lin1		0.0540		0.488	0.500	-2.5	20.0
PCB-1260 Peak 3	Lin1		0.0813		0.486	0.500	-2.8	20.0
PCB-1260 Peak 4	Lin1		0.1006		0.500	0.500	-0.0	20.0
PCB-1260 Peak 5	Lin1		0.0651		0.460	0.500	-8.0	20.0
Tetrachloro-m-xylene	Lin1		1.023		0.0224	0.0250	-10.5	20.0
DCB Decachlorobiphenyl	Lin1		0.9696		0.0298	0.0250	19.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/3 Calibration Date: 08/30/2015 17:26

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100003.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.74	5.71	5.77
PCB-1016 Peak 2	6.27	6.24	6.30
PCB-1016 Peak 3	6.85	6.82	6.88
PCB-1016 Peak 4	7.01	6.98	7.04
PCB-1016 Peak 5	7.59	7.56	7.62
PCB-1260 Peak 1	9.10	9.07	9.13
PCB-1260 Peak 2	9.35	9.32	9.38
PCB-1260 Peak 3	9.76	9.73	9.79
PCB-1260 Peak 4	10.49	10.46	10.52
PCB-1260 Peak 5	10.87	10.84	10.90
Tetrachloro-m-xylene	5.05	5.02	5.08
DCB Decachlorobiphenyl	11.97	11.94	12.00

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/4 Calibration Date: 08/30/2015 17:44

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 13:03

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 14:35

Lab File ID: P1100004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0208		0.484	0.500	-3.2	20.0
PCB-1232 Peak 2	Lin1		0.0164		0.486	0.500	-2.8	20.0
PCB-1232 Peak 3	Lin1		0.0342		0.471	0.500	-5.9	20.0
PCB-1232 Peak 4	Lin1		0.0145		0.473	0.500	-5.4	20.0
PCB-1232 Peak 5	Lin1		0.0103		0.485	0.500	-3.0	20.0
PCB-1262 Peak 1	Lin1		0.0400		0.464	0.500	-7.2	20.0
PCB-1262 Peak 2	Lin1		0.0629		0.496	0.500	-0.7	20.0
PCB-1262 Peak 3	Lin1		0.0592		0.479	0.500	-4.2	20.0
PCB-1262 Peak 4	Lin1		0.1230		0.496	0.500	-0.8	20.0
PCB-1262 Peak 5	Lin1		0.0789		0.458	0.500	-8.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/4 Calibration Date: 08/30/2015 17:44

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 13:03

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 14:35

Lab File ID: P1100004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.74	5.71	5.77
PCB-1232 Peak 2	6.27	6.24	6.30
PCB-1232 Peak 3	6.85	6.82	6.88
PCB-1232 Peak 4	7.01	6.98	7.04
PCB-1232 Peak 5	7.59	7.56	7.62
PCB-1262 Peak 1	9.10	9.07	9.13
PCB-1262 Peak 2	9.87	9.84	9.90
PCB-1262 Peak 3	10.21	10.18	10.24
PCB-1262 Peak 4	10.49	10.46	10.52
PCB-1262 Peak 5	10.87	10.84	10.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/5 Calibration Date: 08/30/2015 18:02

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 14:53

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 16:06

Lab File ID: P1100005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0135		0.469	0.500	-6.2	20.0
PCB-1242 Peak 2	Lin1		0.0253		0.470	0.500	-5.9	20.0
PCB-1242 Peak 3	Lin1		0.0578		0.456	0.500	-8.7	20.0
PCB-1242 Peak 4	Lin1		0.0231		0.455	0.500	-9.0	20.0
PCB-1242 Peak 5	Lin1		0.0189		0.470	0.500	-6.0	20.0
PCB-1268 Peak 1	Lin1		0.1164		0.441	0.500	-11.8	20.0
PCB-1268 Peak 2	Lin1		0.1139		0.445	0.500	-10.9	20.0
PCB-1268 Peak 3	Lin1		0.1012		0.491	0.500	-1.8	20.0
PCB-1268 Peak 4	Lin1		0.0454		0.507	0.500	1.4	20.0
PCB-1268 Peak 5	Lin1		0.3555		0.495	0.500	-0.9	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/5 Calibration Date: 08/30/2015 18:02

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 14:53

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 16:06

Lab File ID: P1100005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.74	5.71	5.77
PCB-1242 Peak 2	6.27	6.24	6.30
PCB-1242 Peak 3	6.85	6.82	6.88
PCB-1242 Peak 4	7.01	6.98	7.04
PCB-1242 Peak 5	7.59	7.56	7.62
PCB-1268 Peak 1	10.87	10.84	10.90
PCB-1268 Peak 2	10.91	10.88	10.94
PCB-1268 Peak 3	11.16	11.13	11.19
PCB-1268 Peak 4	11.44	11.41	11.47
PCB-1268 Peak 5	11.74	11.71	11.77

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/6 Calibration Date: 08/30/2015 18:20

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 16:42

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 18:13

Lab File ID: P1100006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0140		0.455	0.500	-9.1	20.0
PCB-1248 Peak 2	Lin1		0.0384		0.442	0.500	-11.6	20.0
PCB-1248 Peak 3	Lin1		0.0300		0.449	0.500	-10.2	20.0
PCB-1248 Peak 4	Lin1		0.0386		0.445	0.500	-11.0	20.0
PCB-1248 Peak 5	Lin1		0.0209		0.458	0.500	-8.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/6 Calibration Date: 08/30/2015 18:20

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 16:42

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 18:13

Lab File ID: P1100006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	6.27	6.24	6.30
PCB-1248 Peak 2	6.84	6.81	6.87
PCB-1248 Peak 3	7.59	7.56	7.62
PCB-1248 Peak 4	8.10	8.07	8.13
PCB-1248 Peak 5	8.87	8.84	8.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/7 Calibration Date: 08/30/2015 18:39

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 18:31

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 20:03

Lab File ID: P1100007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0096		0.471	0.500	-5.8	20.0
PCB-1221 Peak 2	Lin1		0.0064		0.478	0.500	-4.4	20.0
PCB-1221 Peak 3	Lin1		0.0236		0.469	0.500	-6.2	20.0
PCB-1254 Peak 1	Lin1		0.0342		0.457	0.500	-8.6	20.0
PCB-1254 Peak 2	Lin1		0.0401		0.460	0.500	-8.0	20.0
PCB-1254 Peak 3	Lin1		0.0629		0.467	0.500	-6.6	20.0
PCB-1254 Peak 4	Lin1		0.0448		0.473	0.500	-5.4	20.0
PCB-1254 Peak 5	Lin1		0.0621		0.478	0.500	-4.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/7 Calibration Date: 08/30/2015 18:39

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 18:31

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 20:03

Lab File ID: P1100007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.48	5.45	5.51
PCB-1221 Peak 2	5.67	5.64	5.70
PCB-1221 Peak 3	5.74	5.71	5.77
PCB-1254 Peak 1	8.10	8.07	8.13
PCB-1254 Peak 2	8.33	8.30	8.36
PCB-1254 Peak 3	8.87	8.84	8.90
PCB-1254 Peak 4	9.14	9.11	9.17
PCB-1254 Peak 5	9.76	9.73	9.79

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: MB 240-195418/2-A

Matrix: Water Date Extracted: 08/29/2015 09:45

Lab File ID:(1) P1100010.D Lab File ID:(2)

Date Analyzed:(1) 08/30/2015 19:33 Date Analyzed:(2)

Instrument ID:(1) A2HP11 Instrument ID:(2)

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
WC-DFRAC-082515	240-54724-11	08/30/2015 19:15	
	LCS 240-195418/3-A	08/30/2015 19:51	

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195418/2-A

Matrix: Water | Lab File ID: P1100010.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 1000(mL) | Date Analyzed: 08/30/2015 19:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.17	U	0.50	0.17
11104-28-2	Aroclor-1221	0.13	U	0.50	0.13
11141-16-5	Aroclor-1232	0.16	U	0.50	0.16
53469-21-9	Aroclor-1242	0.22	U	0.50	0.22
12672-29-6	Aroclor-1248	0.10	U	0.50	0.10
11097-69-1	Aroclor-1254	0.16	U	0.50	0.16
11096-82-5	Aroclor-1260	0.17	U	0.50	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	58		21-124
2051-24-3	DCB Decachlorobiphenyl	76		10-131

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP-2 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCB1 #
WC-DFRAC-082515	240-54724-11	47	21
	MB 240-195418/2-A	58	76
	LCS 240-195418/3-A	62	64

	QC LIMITS
TCX = Tetrachloro-m-xylene	21-124
DCB = DCB Decachlorobiphenyl	10-131

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P1100011.D

Lab ID: LCS 240-195418/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	5.00	3.60	72	48-126	
Aroclor-1260	5.00	3.63	73	43-130	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD05 240-194251/31 Date Analyzed: 08/23/2015 21:15

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1100031.D Heated Purge: (Y/N) N

Calibration ID: 30273

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		102405102	3.62				
UPPER LIMIT		204810204	4.12				
LOWER LIMIT		51202551	3.12				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194251/39		111025584	3.62				
CCV 240-195464/7		99612972	3.72				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195464/3 Date Analyzed: 08/30/2015 17:26

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1100003.D Heated Purge: (Y/N) N

Calibration ID: 30273

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		100457521	3.72				
UPPER LIMIT		200915042	4.22				
LOWER LIMIT		50228761	3.22				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-195464/4		96166148	3.72				
CCV 240-195464/5		98262099	3.72				
CCV 240-195464/6		98076388	3.72				
CCV 240-195464/7		99612972	3.72				
240-54724-11	WC-DFRAC-082515	109783715	3.72				
MB 240-195418/2-A		115153264	3.72				
LCS 240-195418/3-A		118003318	3.73				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: WHITEY Method: 1010A

Start Date: 08/28/2015 05:45 End Date: 08/28/2015 11:48

Lab Sample ID	D / F	Type	Time	Analytes																				
				FP																				
LCS 240-195256/1	1	T	05:45	X																				
240-54741-A-4 DU	1	T	06:12	X																				
ZZZZZZ			06:40																					
ZZZZZZ			07:08																					
ZZZZZZ			07:36																					
ZZZZZZ			08:04																					
240-54724-11	1	T	08:32	X																				
ZZZZZZ			09:00																					
ZZZZZZ			09:28																					
ZZZZZZ			09:56																					
ZZZZZZ			10:24																					
ZZZZZZ			10:52																					
ZZZZZZ			11:20																					
ZZZZZZ			11:48																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/26/2015 16:37 End Date: 08/26/2015 17:01

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			16:37																					
ZZZZZZ			16:37																					
ZZZZZZ			16:37																					
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ZZZZZZ			16:37																					
240-54724-1 DU	1	T	16:37	X	X																			
240-54724-1	1	T	16:37	X	X																			
240-54724-2	1	T	16:37	X	X																			
240-54724-3	1	T	16:37	X	X																			
240-54724-4	1	T	16:37	X	X																			
240-54724-5	1	T	17:01	X	X																			
240-54724-6	1	T	17:01	X	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/26/2015 16:37 End Date: 08/26/2015 17:01

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
240-54724-7	1	T	17:01	X	X																		
240-54724-8	1	T	17:01	X	X																		
240-54724-9	1	T	17:01	X	X																		
240-54724-10 DU	1	T	17:01	X	X																		
240-54724-10	1	T	17:01	X	X																		
240-54724-13	1	T	17:01	X	X																		
240-54724-14	1	T	17:01	X	X																		
240-54724-15	1	T	17:01	X	X																		
240-54724-16	1	T	17:01	X	X																		
240-54724-17	1	T	17:01	X	X																		
240-54724-18	1	T	17:01	X	X																		
240-54724-19	1	T	17:01	X	X																		
ZZZZZZ			17:01																				
ZZZZZZ			17:01																				
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ZZZZZZ			17:01																				
ZZZZZZ			17:01																				

Prep Types
T = Total/NA

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 195256 Date: 08/28/2015 06:12								
1010A		240-54741-A-4	Flashpoint	>200	Degrees F			
1010A		240-54741-A-4 DU	Flashpoint	>200	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 195256 Date: 08/28/2015 05:45											
						LCS Source: WCP-XYLENE_00017					
1010A	LCS 240-195256/1	Flashpoint	83.00		Degrees F	81.0	102	97-103			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A RL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A XRL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

	SAMPLE ID	**WC-DFRAC-082515**				
SAMPLE CALC	**for 2-butanone**					
IS AREA	**DILUTION**	**COMPOUND OF INTEREST AREA**	**IS AMOUNT (ug/L)**	**Final Extract Volume (mL)**	**AVE RRF**	**CONCENTRATION (ug/L)**
1290415	1	14380	10	5	0.1058	1.05
				SampleVolume (mL)		
				5		

	SAMPLE ID	**D-VB-D-2-2**				
SAMPLE CALC	**for fluoranthene**					
IS AREA	**DILUTION**	**COMPOUND OF INTEREST AREA**	**IS AMOUNT (ng/uL)**	**Final Extract Volume (mL)**	**AVE RRF**	**CONCENTRATION (ug/kg)**
417576	4	1783459	4	2	1.2803	4189.03
				SampleWeight (g)		
		PERCENT SOLID		29.77		
		85.6				

Sample Calculation

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.1	J B	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U F1	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	6.2	J B	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

TestAmerica Canton
Target Compound Quantitation Report

Sample Calculation

Data File: \\ChromNA\Canton\ChromData\A3UX11\20150827-46718.b\UXJ8735.D
Lims ID: 240-54724-B-11 Lab Sample ID: 240-54724-11
Client ID: WC-DFRAC-082515
Sample Type: Client
Inject. Date: 27-Aug-2015 13:04:30 ALS Bottle#: 8 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0046718-033
Misc. Info.: J50827A,8260LLUX11,,43582
Operator ID: 43582 Instrument ID: A3UX11

Method: \\ChromNA\Canton\ChromData\A3UX11\20150827-46718.b\8260_11.m
Limit Group: MSV 8260DOD ICAL
Last Update: 28-Aug-2015 06:45:21 Calib Date: 13-Aug-2015 16:53:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX11\20150813-46285.b\UXJ8327.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: evansle Date: 27-Aug-2015 13:33:16

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	5.115	5.115	0.000	98	1290415	10.0	
*	2 Chlorobenzene-d5	117	7.778	7.778	0.000	87	773744	10.0	
*	3 1,4-Dichlorobenzene-d4	152	10.026	10.026	0.000	96	250845	10.0	
$	4 Dibromofluoromethane (Surr	113	4.547	4.547	0.000	96	269864	7.47	
$	5 1,2-Dichloroethane-d4 (Sur	65	4.831	4.831	0.000	98	345252	7.28	
$	6 Toluene-d8 (Surr)	98	6.476	6.476	0.000	94	1129077	7.08	
$	7 4-Bromofluorobenzene (Surr	95	8.890	8.890	0.000	89	280127	7.50	
	9 Dichlorodifluoromethane	85		1.518				ND	
	10 Chloromethane	50	1.648	1.648	0.000	99	31937	0.8158	
	12 Vinyl chloride	62		1.743				ND	
	15 Bromomethane	94		2.015				ND	
	16 Chloroethane	64		2.109				ND	
	18 Trichlorofluoromethane	101		2.311				ND	
	21 1,1-Dichloroethene	96		2.737				ND	
	22 1,1,2-Trichloro-1,2,2-trif	151		2.748				ND	
	23 Acetone	43	2.760	2.760	0.000	99	85315	6.21	
	26 Carbon disulfide	76		2.926				ND	
	30 Methylene Chloride	84		3.115				ND	
	31 2-Methyl-2-propanol	59		3.198				ND	
	33 Methyl tert-butyl ether	73		3.340				ND	
	34 trans-1,2-Dichloroethene	96		3.352				ND	
	36 1,1-Dichloroethane	63		3.683				ND	
	37 Vinyl acetate	43		3.719				ND	
	38 Isopropyl ether	87		3.742				ND	
	40 Tert-butyl ethyl ether	59		4.038				ND	
	41 cis-1,2-Dichloroethene	96		4.157				ND	
	43 2,2-Dichloropropane	77		4.168				ND	
	42 2-Butanone (MEK)	43	4.168	4.168	0.000	98	14380	1.05	
	47 Chlorobromomethane	128		4.358				ND	
	49 Chloroform	83		4.417				ND	
	50 1,1,1-Trichloroethane	97		4.583				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2339 0.2320	0.2466	0.2339	0.2374	0.2312	Ave		0.2358				2.4		15.0			
Methyl acetate	0.2146 0.1774	0.1974	0.1849	0.1853	0.1777	Ave		0.1896			0.1000	7.5		15.0			
Methylene Chloride	0.7817 0.3051	0.6001	0.4326	0.3583	0.3299	Lin1	0.5426	0.2984			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0127 0.0124	0.0159	0.0153	0.0145	0.0145	Ave		0.0142				9.9		15.0			
Acrylonitrile	0.0913 0.0853	0.0896	0.0865	0.0864	0.0859	Ave		0.0875				2.7		15.0			
Methyl tert-butyl ether	0.8971 0.8895	0.9038	0.8953	0.9003	0.9036	Ave		0.8983			0.1000	0.6		15.0			
trans-1,2-Dichloroethene	0.3354 0.3424	0.3606	0.3503	0.3527	0.3442	Ave		0.3476			0.1000	2.5		15.0			
Hexane	0.0848 0.0771	0.0748	0.0737	0.0751	0.0738	Ave		0.0766				5.5		15.0			
1,1-Dichloroethane	0.6147 0.6181	0.6293	0.6211	0.6154	0.6139	Ave		0.6188			0.1000	0.9		15.0			
Vinyl acetate	0.4062 0.4465	0.3977	0.4149	0.4299	0.4247	Ave		0.4200				4.2		15.0			
cis-1,2-Dichloroethene	0.3598 0.3676	0.3704	0.3645	0.3510	0.3687	Ave		0.3637			0.1000	2.0		15.0			
2-Butanone (MEK)	0.1262 0.1059	0.0889	0.1098	0.1011	0.1027	Ave		0.1058			0.0500	11.6		15.0			
2,2-Dichloropropane	0.3168 0.3372	0.3374	0.3355	0.3316	0.3433	Ave		0.3336				2.7		15.0			
Bromochloromethane	0.1745 0.1673	0.1709	0.1648	0.1620	0.1644	Ave		0.1673				2.8		15.0			
Tetrahydrofuran	0.0751 0.0645	0.0665	0.0628	0.0644	0.0637	Ave		0.0662				6.9		15.0			
Chloroform	0.6241 0.5929	0.6432	0.5863	0.5755	0.5871	Ave		0.6015				4.4		15.0			
1,1,1-Trichloroethane	0.4366 0.4457	0.4647	0.4329	0.4241	0.4549	Ave		0.4431			0.1000	3.4		15.0			
Cyclohexane	0.5217 0.4700	0.4632	0.4479	0.4403	0.4657	Ave		0.4681			0.1000	6.1		15.0			
1,1-Dichloropropene	0.4463 0.4536	0.4442	0.4382	0.4181	0.4524	Ave		0.4421				2.9		15.0			
Carbon tetrachloride	0.3206 0.3671	0.3469	0.3161	0.3238	0.3626	Ave		0.3395			0.1000	6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1
SDG No.:
Client Sample ID: D-VB-D-2-2 | Lab Sample ID: 240-54724-18
Matrix: Solid | Lab File ID: 50829021.D
Analysis Method: 8270D | Date Collected: 08/25/2015 14:30
Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19
Sample wt/vol: 29.77(g) | Date Analyzed: 08/29/2015 17:23
Con. Extract Vol.: 2(mL) | Dilution Factor: 4
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 14.4 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	86		31	3.6
208-96-8	Acenaphthylene	82		31	1.6
120-12-7	Anthracene	610		31	3.7
56-55-3	Benzo[a]anthracene	2300		31	3.0
50-32-8	Benzo[a]pyrene	1700		31	3.0
205-99-2	Benzo[b]fluoranthene	2200		31	2.8
191-24-2	Benzo[g,h,i]perylene	1100		31	1.6
207-08-9	Benzo[k]fluoranthene	1000		31	3.2
218-01-9	Chrysene	2100		31	5.2
53-70-3	Dibenz(a,h)anthracene	290		31	3.1
206-44-0	Fluoranthene	4200		31	2.6
86-73-7	Fluorene	150		31	2.5
193-39-5	Indeno[1,2,3-cd]pyrene	950		31	1.6
91-20-3	Naphthalene	23	J	31	3.9
85-01-8	Phenanthrene	2300		31	3.4
129-00-0	Pyrene	3700		31	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	78		20-110
367-12-4	2-Fluorophenol (Surr)	84		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

TestAmerica Canton
Target Compound Quantitation Report

Sample Calculation

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150829-46786.b\50829021.D
Lims ID: 240-54724-B-18-A Lab Sample ID: 240-54724-18
Client ID: D-VB-D-2-2
Sample Type: Client
Inject. Date: 29-Aug-2015 17:23:30 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 4.0000
Sample Info: 240-0046786-021
Misc. Info.: 240-54724-B-18-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150829-46786.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 31-Aug-2015 09:42:18 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 31-Aug-2015 09:30:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.166	6.166	0.000	92	120761	4.00	
* 2 Naphthalene-d8	136	7.292	7.291	0.001	98	473407	4.00	
* 3 Acenaphthene-d10	164	8.792	8.791	0.001	90	259327	4.00	
* 4 Phenanthrene-d10	188	10.052	10.051	0.001	95	417576	4.00	
* 5 Chrysene-d12	240	12.302	12.302	0.000	96	449309	4.00	
* 6 Perylene-d12	264	13.913	13.913	0.000	96	415887	4.00	
$ 7 2-Fluorophenol	112	4.911	4.901	0.010	94	111310	2.11	
$ 8 Phenol-d5	99	5.854	5.839	0.015	97	156807	2.10	
$ 9 Nitrobenzene-d5	82	6.652	6.651	0.001	83	177824	1.94	
$ 10 2-Fluorobiphenyl (Surr)	172	8.196	8.195	0.001	98	169825	2.00	
$ 11 2,4,6-Tribromophenol	330	9.460	9.460	0.000	73	6726	0.7975	
$ 12 Terphenyl-d14	244	11.370	11.369	0.001	98	193305	2.34	
75 Naphthalene	128	7.311	7.310	0.001	95	9916	0.0733	
109 Acenaphthylene	152	8.672	8.676	-0.004	96	31647	0.2612	
112 Acenaphthene	153	8.821	8.820	0.001	95	21345	0.2742	
126 Fluorene	166	9.254	9.253	0.001	98	42711	0.4779	
148 Phenanthrene	178	10.071	10.075	-0.004	98	982012	7.42	
149 Anthracene	178	10.114	10.118	-0.004	97	254900	1.94	
159 Fluoranthene	202	11.086	11.085	0.001	99	1783459	13.3	
161 Pyrene	202	11.283	11.282	0.001	94	1512489	11.7	
177 Benzo[a]anthracene	228	12.293	12.292	0.001	100	1001179	7.22	
178 Chrysene	228	12.326	12.326	0.000	97	869311	6.68	
182 Benzo[b]fluoranthene	252	13.413	13.412	0.001	98	848909	6.89	M
183 Benzo[k]fluoranthene	252	13.432	13.441	-0.009	94	396665	3.18	M
184 Benzo[a]pyrene	252	13.841	13.840	0.001	81	645202	5.50	
188 Indeno[1,2,3-cd]pyrene	276	15.649	15.653	-0.004	95	370247	3.04	
189 Dibenz(a,h)anthracene	278	15.645	15.653	-0.008	55	88425	0.9252	
190 Benzo[g,h,i]perylene	276	16.188	16.192	-0.004	95	340651	3.36	

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 28, 2015**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAH**
MRC SOIL REMEDY, BLOCK D AREA F
SAMPLE DELIVERY GROUP (SDG) – 680-54590-1

SAMPLES: 8/Soil/PAH

D-VB-F1-2-3	D-VB-F1-3-3	D-VB-F1-6-3	D-VB-F1-7-3
D-VB-F1-8-3	D-VB-F1-9-3	D-VS-F1-2-2	D-VS-F1-3-2

Overview

The sample set for MRC Soil Remedy- Block D Area F, SDG 680-54590-1 consists of eight (8) soil environmental samples analyzed for polyaromatic hydrocarbons (PAHs). There are no field duplicate pairs included in this SDG.

The samples were collected by Tetra Tech on August 19, 2015 and analyzed by Test America Laboratories, Inc. Analyses were conducted in accordance to SW-846 Method 8270D analytical and reporting protocol.

Summary

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial / continuing calibrations, laboratory method blank results, surrogate spike/internal standard recoveries, laboratory control sample results, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

Major Problems

- No issues were identified.

Minor Problems

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Notes

All matrix spike/matrix spike duplicate recoveries were outside quality control limits in spiked sample 240-54590-9. The sample concentration was greater than 4X the spike amount. No validation action was taken.

Sample D-VS-F1-3-2 was diluted 4X for analysis.

Nondetected results were reported to the method detection limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 07483	NSAMPLE	D-VB-F1-2-3			D-VB-F1-3-3			D-VB-F1-6-3			D-VB-F1-7-3		
SDG: 240-54590-1	LAB_ID	240-54590-3			240-54590-4			240-54590-5			240-54590-6		
FRACTION: PAH	SAMP_DATE	8/19/2015			8/19/2015			8/19/2015			8/19/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.6			85.5			86.9			85.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		0.88	U		9.4			0.9	U	
ACENAPHTHYLENE		0.41	U		0.41	U		6.9	J	P	0.42	U	
ANTHRACENE		0.9	U		0.91	U		23			0.93	U	
BENZO(A)ANTHRACENE		0.73	U		0.73	U		80			0.75	U	
BENZO(A)PYRENE		0.74	U		0.74	U		70			0.76	U	
BENZO(B)FLUORANTHENE		4.1	J	P	4	J	P	150			5.2	J	P
BENZO(G,H,I)PERYLENE		0.41	U		0.41	U		48			0.42	U	
BENZO(K)FLUORANTHENE		0.79	U		0.79	U		49			0.81	U	
CHRYSENE		1.3	U		1.3	U		130			6.3	J	P
DIBENZO(A,H)ANTHRACENE		0.76	U		0.77	U		16			0.79	U	
FLUORANTHENE		6	J	P	4.9	J	P	160			5.6	J	P
FLUORENE		0.61	U		0.62	U		9.9			0.63	U	
INDENO(1,2,3-CD)PYRENE		0.41	U		0.41	U		47			0.42	U	
NAPHTHALENE		0.95	U		0.95	U		14			0.98	U	
PHENANTHRENE		0.84	U		4.6	J	P	95			4.1	J	P
PYRENE		5.7	J	P	4.5	J	P	140			6.3	J	P

PROJ_NO: 07483	NSAMPLE	D-VB-F1-8-3			D-VB-F1-9-3			D-VS-F1-2-2			D-VS-F1-3-2		
SDG: 240-54590-1	LAB_ID	240-54590-7			240-54590-8			240-54590-1			240-54590-2		
FRACTION: PAH	SAMP_DATE	8/19/2015			8/19/2015			8/19/2015			8/19/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.5			89.0			91.2			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		5.2	J	P	9.5			160		
ACENAPHTHYLENE		0.41	U		0.4	U		9.2			22	J	P
ANTHRACENE		0.91	U		10			17			350		
BENZO(A)ANTHRACENE		0.73	U		39			69			1100		
BENZO(A)PYRENE		0.74	U		39			88			990		
BENZO(B)FLUORANTHENE		0.69	U		61			150			1400		
BENZO(G,H,I)PERYLENE		0.41	U		20			69			500		
BENZO(K)FLUORANTHENE		0.79	U		21			53			560		
CHRYSENE		1.3	U		43			97			1200		
DIBENZO(A,H)ANTHRACENE		0.77	U		6.5	J	P	20			150		
FLUORANTHENE		0.64	U		68			110			3000		
FLUORENE		0.62	U		0.6	U		8.2			120		
INDENO(1,2,3-CD)PYRENE		0.41	U		20			61			470		
NAPHTHALENE		0.95	U		5	J	P	6.7	J	P	39		
PHENANTHRENE		0.85	U		38			63			1400		
PYRENE		4.1	J	P	59			95			2400		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VS-F1-2-2 | Lab Sample ID: 240-54590-1

Matrix: Solid | Lab File ID: 50825009.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:00

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.78(g) | Date Analyzed: 08/25/2015 12:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.5		7.4	0.84
208-96-8	Acenaphthylene	9.2		7.4	0.39
120-12-7	Anthracene	17		7.4	0.86
56-55-3	Benzo[a]anthracene	69		7.4	0.70
50-32-8	Benzo[a]pyrene	88		7.4	0.71
205-99-2	Benzo[b]fluoranthene	150		7.4	0.65
191-24-2	Benzo[g,h,i]perylene	69		7.4	0.39
207-08-9	Benzo[k]fluoranthene	53		7.4	0.75
218-01-9	Chrysene	97		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	20		7.4	0.73
206-44-0	Fluoranthene	110		7.4	0.61
86-73-7	Fluorene	8.2		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	61		7.4	0.39
91-20-3	Naphthalene	6.7	J	7.4	0.91
85-01-8	Phenanthrene	63		7.4	0.81
129-00-0	Pyrene	95		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	73		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	25		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54590-2

Matrix: Solid | Lab File ID: 50825008.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:05

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.89(g) | Date Analyzed: 08/25/2015 11:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160		30	3.4
208-96-8	Acenaphthylene	22	J	30	1.6
120-12-7	Anthracene	350		30	3.5
56-55-3	Benzo[a]anthracene	1100		30	2.8
50-32-8	Benzo[a]pyrene	990		30	2.9
205-99-2	Benzo[b]fluoranthene	1400		30	2.6
191-24-2	Benzo[g,h,i]perylene	500		30	1.6
207-08-9	Benzo[k]fluoranthene	560		30	3.0
218-01-9	Chrysene	1200		30	4.9
53-70-3	Dibenz(a,h)anthracene	150		30	2.9
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	120		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	470		30	1.6
91-20-3	Naphthalene	39		30	3.7
85-01-8	Phenanthrene	1400		30	3.3
129-00-0	Pyrene	2400		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-2-3 | Lab Sample ID: 240-54590-3

Matrix: Solid | Lab File ID: 50825014.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:30

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.94(g) | Date Analyzed: 08/25/2015 14:08

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	0.73	U	7.7	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.7	0.74
205-99-2	Benzo[b]fluoranthene	4.1	J	7.7	0.68
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.7	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.7	0.79
218-01-9	Chrysene	1.3	U	7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	6.0	J	7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	0.84	U	7.7	0.84
129-00-0	Pyrene	5.7	J	7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	66		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-3-3 | Lab Sample ID: 240-54590-4

Matrix: Solid | Lab File ID: 50825012.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:35

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.17(g) | Date Analyzed: 08/25/2015 13:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.8	0.74
205-99-2	Benzo[b]fluoranthene	4.0	J	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	4.9	J	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.95	U	7.8	0.95
85-01-8	Phenanthrene	4.6	J	7.8	0.85
129-00-0	Pyrene	4.5	J	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	24		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-6-3 | Lab Sample ID: 240-54590-5

Matrix: Solid | Lab File ID: 50825010.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:40

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.39(g) | Date Analyzed: 08/25/2015 12:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.4		7.6	0.86
208-96-8	Acenaphthylene	6.9	J	7.6	0.40
120-12-7	Anthracene	23		7.6	0.89
56-55-3	Benzo[a]anthracene	80		7.6	0.72
50-32-8	Benzo[a]pyrene	70		7.6	0.73
205-99-2	Benzo[b]fluoranthene	150		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	48		7.6	0.40
207-08-9	Benzo[k]fluoranthene	49		7.6	0.77
218-01-9	Chrysene	130		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	16		7.6	0.75
206-44-0	Fluoranthene	160		7.6	0.62
86-73-7	Fluorene	9.9		7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	47		7.6	0.40
91-20-3	Naphthalene	14		7.6	0.93
85-01-8	Phenanthrene	95		7.6	0.83
129-00-0	Pyrene	140		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-7-3 | Lab Sample ID: 240-54590-6

Matrix: Solid | Lab File ID: 50825013.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:45

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.66(g) | Date Analyzed: 08/25/2015 13:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	5.2	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	6.3	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	5.6	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	4.1	J	7.9	0.87
129-00-0	Pyrene	6.3	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-8-3 | Lab Sample ID: 240-54590-7

Matrix: Solid | Lab File ID: 50825015.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:50

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.22(g) | Date Analyzed: 08/25/2015 14:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.91	U	7.7	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.7	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.7	0.74
205-99-2	Benzo[b]fluoranthene	0.69	U	7.7	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.7	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.7	0.79
218-01-9	Chrysene	1.3	U	7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	0.64	U	7.7	0.64
86-73-7	Fluorene	0.62	U	7.7	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	0.85	U	7.7	0.85
129-00-0	Pyrene	4.1	J	7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	70		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	31		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-9-3 | Lab Sample ID: 240-54590-8

Matrix: Solid | Lab File ID: 50825011.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:55

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.65(g) | Date Analyzed: 08/25/2015 12:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.2	J	7.6	0.86
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	10		7.6	0.89
56-55-3	Benzo[a]anthracene	39		7.6	0.72
50-32-8	Benzo[a]pyrene	39		7.6	0.73
205-99-2	Benzo[b]fluoranthene	61		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	20		7.6	0.40
207-08-9	Benzo[k]fluoranthene	21		7.6	0.77
218-01-9	Chrysene	43		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	6.5	J	7.6	0.75
206-44-0	Fluoranthene	68		7.6	0.63
86-73-7	Fluorene	0.60	U	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	20		7.6	0.40
91-20-3	Naphthalene	5.0	J	7.6	0.93
85-01-8	Phenanthrene	38		7.6	0.83
129-00-0	Pyrene	59		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LM MRC Block D Area F1

Report Number: 240-54590-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/21/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F1-2-2 (240-54590-1), D-VS-F1-3-2 (240-54590-2), D-VB-F1-2-3 (240-54590-3), D-VB-F1-3-3 (240-54590-4), D-VB-F1-6-3 (240-54590-5), D-VB-F1-7-3 (240-54590-6), D-VB-F1-8-3 (240-54590-7) and D-VB-F1-9-3 (240-54590-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/22/2015 and analyzed on 08/25/2015.

2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for 240-54590-D-9-B MS and 240-54590-D-9-C MSD.

Sample D-VS-F1-3-2 (240-54590-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F1-2-2 (240-54590-1), D-VS-F1-3-2 (240-54590-2), D-VB-F1-2-3 (240-54590-3), D-VB-F1-3-3 (240-54590-4), D-VB-F1-6-3 (240-54590-5), D-VB-F1-7-3 (240-54590-6), D-VB-F1-8-3 (240-54590-7) and D-VB-F1-9-3 (240-54590-8) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/24/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54590-1	D-VS-F1-2-2	Solid	08/19/2015 1600	08/21/2015 0915
240-54590-2	D-VS-F1-3-2	Solid	08/19/2015 1605	08/21/2015 0915
240-54590-3	D-VB-F1-2-3	Solid	08/19/2015 1630	08/21/2015 0915
240-54590-4	D-VB-F1-3-3	Solid	08/19/2015 1635	08/21/2015 0915
240-54590-5	D-VB-F1-6-3	Solid	08/19/2015 1640	08/21/2015 0915
240-54590-6	D-VB-F1-7-3	Solid	08/19/2015 1645	08/21/2015 0915
240-54590-7	D-VB-F1-8-3	Solid	08/19/2015 1650	08/21/2015 0915
240-54590-8	D-VB-F1-9-3	Solid	08/19/2015 1655	08/21/2015 0915

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

CHAIN OF CUSTODY RECORD

0.81C1.8

#31

TEST AMERICA, NORTH CANTON OH

PROJECT NO.:	SITE NAME:
112IC07483	Lockheed Martin MRC

SAMPLERS (SIGNATURE): Thomas M Dickson / Suit A. Neta

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAHs 8270 D SIM 4oz Glass Jar	VOCs 2oz Glass	GRO 2oz Glass	DRO/PCBs 8oz Glass			REMARKS
BLK D Area F1	19 Aug	1600	X		D-VS-F1-2-2	1	1						3 DAY TAT
		1605	X		D-VS-F1-3-2	1	1						
		1630		X	D-VB-F1-2-3	1	1						
		1635		X	D-VB-F1-3-3	1	1						
		1640		X	D-VB-F1-6-3	1	1						
		1645		X	D-VB-F1-7-3	1	1						
		1650		X	D-VB-F1-8-3	1	1						
		1655		X	D-VB-F1-9-3	1	1						
BLK D AREA F1	20 Aug	1200		X	D-WC-F1-01-3	6		2	2	2			5 DAY TAT ; HIGH CONCS

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Suit A. Neta	8/20/15 2:30				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/20/15 1610	8-21-15 915			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 94560**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 8-21-15 Opened on 8-21-15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50821001.D DFTPP Injection Date: 08/21/2015

Instrument ID: A4HP10 DFTPP Injection Time: 10:14

Analysis Batch No.: 194072

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	42.8	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	52.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	24.9	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	84.9	
443	15.0 - 24.0% of mass 442	15.8	(18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-194072/2	50821002.D	08/21/2015	10:34
	STD4 240-194072/3	50821003.D	08/21/2015	10:59
	STD3 240-194072/4	50821004.D	08/21/2015	11:23
	STD2 240-194072/5	50821005.D	08/21/2015	11:47
	STD1 240-194072/6	50821006.D	08/21/2015	12:12
	STD9 240-194072/7	50821007.D	08/21/2015	12:36
	STD8 240-194072/8	50821008.D	08/21/2015	13:00
	STD7 240-194072/9	50821009.D	08/21/2015	13:25
	STD6 240-194072/10	50821010.D	08/21/2015	13:49
	ICV 240-194072/11	50821011.D	08/21/2015	14:14

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194072/6	50821006.D
Level 2	STD2 240-194072/5	50821005.D
Level 3	STD3 240-194072/4	50821004.D
Level 4	STD4 240-194072/3	50821003.D
Level 5	STD5 240-194072/2	50821002.D
Level 6	STD6 240-194072/10	50821010.D
Level 7	STD7 240-194072/9	50821009.D
Level 8	STD8 240-194072/8	50821008.D
Level 9	STD9 240-194072/7	50821007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6040	0.6959 0.6222	0.6974 0.6206	0.6487 0.6338	0.6316	Ave		0.6443				5.4		20.0			
N-Nitrosodimethylamine	0.8858	0.9169 0.8825	0.8873 0.8941	0.8646 0.9006	0.8674	Ave		0.8874				1.9		20.0			
Pyridine	1.6416	1.7695 1.6574	1.7319 1.6727	1.6409 1.6892	1.6981	Ave		1.6877				2.7		20.0			
Benzaldehyde	1.2173	1.4338 1.2049	1.3554 1.1605	1.3259 1.1193	1.2945	Ave		1.2640			0.0100	8.4		20.0			
Phenol	1.9100	2.0162 1.9008	1.9137 1.8915	1.9186 1.9337	1.9183	Ave		1.9253			0.8000	2.0		20.0			
Aniline	2.3399	2.4242 2.3639	2.3326 2.3682	2.3270 2.3995	2.3314	Ave		2.3608				1.5		20.0			
Bis(2-chloroethyl)ether	1.4727	1.5775 1.4766	1.6009 1.4802	1.4918 1.4882	1.5055	Ave		1.5117			0.7000	3.3		20.0			
2-Chlorophenol	1.4645	1.4665 1.4826	1.4577 1.4979	1.4490 1.5063	1.4815	Ave		1.4758			0.8000	1.3		20.0			
n-Decane	1.5489	1.7181 1.5203	1.6565 1.4755	1.6685 1.5068	1.6022	Ave		1.5871				5.5		20.0			
1,3-Dichlorobenzene	1.5498	1.6358 1.5642	1.5499 1.5930	1.5705 1.5943	1.5523	Ave		1.5762				1.9		20.0			
1,4-Dichlorobenzene	1.5828	1.6327 1.5800	1.6173 1.6007	1.5853 1.6491	1.5711	Ave		1.6024				1.7		20.0			
Benzyl alcohol	0.9711	0.9950 0.9787	0.9963 0.9947	1.0130 0.9985	0.9681	Ave		0.9894				1.6		20.0			
1,2-Dichlorobenzene	1.4944	1.5558 1.5130	1.5150 1.5359	1.4751 1.5484	1.4879	Ave		1.5157				1.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.3692	1.3415 1.3711	1.4003 1.3821	1.3883 1.3832	1.3810	Ave		1.3771			0.7000	1.3		20.0			
bis (2-chloroisopropyl) ether	1.5306	1.9688 1.4654	1.7702 1.4298	1.7500 1.4254	1.6690	Ave		1.6262				12.1		20.0			
Indene	2.7092	2.8843 2.6847	2.7958 2.6636	2.7934 2.5987	2.7460	Ave		2.7345				3.3		20.0			
3 & 4 Methylphenol	1.4288	1.4306 1.4178	1.4593 1.4572	1.4234 1.4589	1.4223	Ave		1.4373				1.3		20.0			
N-Nitrosodi-n-propylamine	0.9459	1.0476 0.8942	1.0197 0.9004	0.9759 0.8725	1.0122	Ave		0.9586			0.5000	6.8		20.0			
Acetophenone	2.0480	2.2623 2.0288	2.1364 2.0343	2.1218 2.0325	2.0701	Ave		2.0918			0.0100	3.8		20.0			
Hexachloroethane	0.6432	0.6901 0.6344	0.6594 0.6502	0.6584 0.6544	0.6614	Ave		0.6564			0.3000	2.5		20.0			
Nitrobenzene	0.4200	0.4256 0.4093	0.4146 0.4232	0.4142 0.4033	0.4138	Ave		0.4155			0.2000	1.8		20.0			
Isophorone	0.7708	0.8097 0.7479	0.7652 0.7785	0.7591 0.7610	0.7624	Ave		0.7693			0.4000	2.4		20.0			
2-Nitrophenol	0.1892	0.1369 0.1911	0.1438 0.1953	0.1636 0.1936	0.1713	Ave		0.1731			0.1000	13.4		20.0			
2,4-Dimethylphenol	0.3905	0.4075 0.3857	0.3974 0.3960	0.3836 0.3835	0.3865	Ave		0.3913			0.2000	2.2		20.0			
Benzoic acid	0.2057	+++++ 0.2058	0.0952 0.2282	0.1169 0.2204	0.1650	Lin1	-0.349	0.2256							0.9960		0.9900
Bis(2-chloroethoxy)methane	0.4452	0.4868 0.4389	0.4669 0.4459	0.4527 0.4390	0.4397	Ave		0.4519			0.3000	3.7		20.0			
2,4-Dichlorophenol	0.3108	0.3007 0.3098	0.3077 0.3189	0.3043 0.3173	0.3025	Ave		0.3090			0.2000	2.1		20.0			
1,2,4-Trichlorobenzene	0.3270	0.3363 0.3287	0.3356 0.3362	0.3150 0.3314	0.3116	Ave		0.3277				2.9		20.0			
Naphthalene	1.2430 1.0793	1.1229 1.0809	1.0504 1.1097	1.0192 1.0807	1.0589	Ave		1.0939			0.7000	5.8		20.0			
4-Chloroaniline	0.4617	0.4787 0.4515	0.4416 0.4606	0.4317 0.4748	0.4421	Ave		0.4553			0.0100	3.6		20.0			
2,6-Dichlorophenol	0.3002	0.2988 0.2988	0.2971 0.3140	0.2835 0.3035	0.2873	Ave		0.2979				3.2		20.0			
Hexachlorobutadiene	0.1924	0.1968 0.1895	0.1887 0.1958	0.1851 0.1925	0.1851	Ave		0.1907			0.0100	2.3		20.0			
Caprolactam	0.1201	0.1038 0.1134	0.1082 0.1215	0.1089 0.1187	0.1143	Ave		0.1136			0.0100	5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3309	0.3083 0.3293	0.3165 0.3339	0.3146 0.3288	0.3200	Ave		0.3228			0.2000	2.8		20.0			
2-Methylnaphthalene	0.7986 0.7357	0.7095 0.7197	0.7153 0.7584	0.6847 0.7380	0.7133	Ave		0.7304			0.4000	4.5		20.0			
1-Methylnaphthalene	0.6601 0.6356	0.6239 0.6226	0.6326 0.6559	0.6156 0.6408	0.6069	Ave		0.6327				2.8		20.0			
Hexachlorocyclopentadiene	0.3411	0.2741 0.3684	0.2750 0.3843	0.3116 0.3887	0.3407	Ave		0.3355			0.0500	13.5		20.0			
1,2,4,5-Tetrachlorobenzene	0.5685	0.5815 0.5780	0.5541 0.5867	0.5585 0.5800	0.5621	Ave		0.5712			0.0100	2.1		20.0			
2,4,6-Trichlorophenol	0.3813	0.3359 0.3926	0.3713 0.4021	0.3672 0.3965	0.3680	Ave		0.3769			0.2000	5.7		20.0			
2,4,5-Trichlorophenol	0.4013	0.3740 0.4082	0.3758 0.4215	0.3792 0.4180	0.3900	Ave		0.3960			0.2000	4.8		20.0			
1,1'-Biphenyl	1.5350 1.4413	1.4582 1.4742	1.4494 1.5023	1.4184 1.4738	1.4347	Ave		1.4653			0.0100	2.5		20.0			
2-Chloronaphthalene	1.2853 1.1457	1.1706 1.1855	1.1713 1.2048	1.1607 1.1939	1.1338	Ave		1.1835			0.8000	3.7		20.0			
2-Nitroaniline	0.3705	0.3049 0.3671	0.3130 0.3668	0.3430 0.3590	0.3575	Ave		0.3477			0.0100	7.3		20.0			
Dimethyl phthalate	1.3906	1.4009 1.3847	1.3282 1.4244	1.2964 1.3970	1.3188	Ave		1.3676			0.0100	3.4		20.0			
1,3-Dinitrobenzene	0.2163	0.1204 0.2175	0.1339 0.2227	0.1580 0.2236	0.1854	Lin1	-0.078	0.2233							0.9980		0.9900
2,6-Dinitrotoluene	0.3092	0.2602 0.3164	0.2777 0.3179	0.2889 0.3140	0.2972	Ave		0.2977				7.0		20.0			
Acenaphthylene	1.7413 1.8369	1.7251 1.8643	1.7594 1.8997	1.7458 1.8543	1.7776	Ave		1.8005			0.9000	3.5		20.0			
3-Nitroaniline	0.3152	0.2452 0.3295	0.2839 0.3355	0.2742 0.3318	0.2941	Ave		0.3012			0.0100	10.7		20.0			
2,4-Dinitrophenol	0.1581	+++++ 0.1803	0.0526 0.1913	0.0757 0.1840	0.1144	Lin1	-0.382	0.1901			0.0100				0.9920		0.9900
Acenaphthene	1.2716 1.1389	1.1789 1.1281	1.1664 1.1707	1.1055 1.1263	1.1065	Ave		1.1548			0.9000	4.5		20.0			
4-Nitrophenol	0.2141	0.1581 0.2085	0.1836 0.2185	0.1847 0.2155	0.2089	Ave		0.1990				10.7		20.0			
2,4-Dinitrotoluene	0.4148	0.2989 0.4126	0.3332 0.4250	0.3501 0.4224	0.3828	Ave		0.3800			0.2000	12.5		20.0			
Dibenzofuran	1.8450 1.6594	1.6638 1.7053	1.6451 1.7485	1.6207 1.7170	1.6103	Ave		1.6906			0.8000	4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3369	0.2865 0.3420	0.2906 0.3564	0.2907 0.3529	0.3133	Ave		0.3212			0.0100	9.2		20.0			
Diethyl phthalate	1.3471	1.3648 1.3401	1.3153 1.3587	1.2796 1.3179	1.3096	Ave		1.3291			0.0100	2.2		20.0			
Hexadecane	0.4800	0.5652 0.4617	0.5692 0.4418	0.5230 0.4153	0.5165	Ave		0.4966				11.3		20.0			
4-Chlorophenyl phenyl ether	0.6492	0.6417 0.6691	0.6533 0.6930	0.6379 0.6810	0.6309	Ave		0.6570			0.4000	3.3		20.0			
4-Nitroaniline	0.3223	0.2650 0.3255	0.2897 0.3201	0.3051 0.3114	0.3166	Ave		0.3070			0.0100	6.7		20.0			
Fluorene	1.4846 1.3760	1.3807 1.4094	1.3236 1.4259	1.3004 1.3955	1.3370	Ave		1.3815			0.9000	4.1		20.0			
4,6-Dinitro-2-methylphenol	0.1421	+++++ 0.1527	0.0663 0.1576	0.0896 0.1572	0.1153	Lin1	-0.243	0.1598			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.6184	0.6291 0.6206	0.6130 0.6261	0.5958 0.6215	0.6030	Ave		0.6160			0.0100	1.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8800	0.9411 0.8696	0.8983 0.8783	0.8773 0.8528	0.8970	Ave		0.8865				2.9		20.0			
Azobenzene	0.8803	0.9392 0.8694	0.8982 0.8785	0.8761 0.8529	0.8975	Ave		0.8865				2.9		20.0			
4-Bromophenyl phenyl ether	0.2348	0.2449 0.2354	0.2129 0.2433	0.2084 0.2456	0.2218	Ave		0.2309			0.1000	6.4		20.0			
Hexachlorobenzene	0.2908 0.2406	0.2548 0.2496	0.2465 0.2570	0.2301 0.2587	0.2434	Ave		0.2524			0.1000	6.7		20.0			
Atrazine	0.2408	0.2500 0.2351	0.2405 0.2363	0.2312 0.2288	0.2371	Ave		0.2375			0.0100	2.7		20.0			
Pentachlorophenol	0.1838	0.1445 0.1883	0.1363 0.1976	0.1472 0.1964	0.1615	Ave		0.1694			0.0500	14.7		20.0			
n-Octadecane	0.7939	0.9361 0.7451	0.9188 0.7119	0.8801 0.6645	0.8809	Ave		0.8164				12.5		20.0			
Phenanthrene	1.3172 1.2084	1.2327 1.2073	1.1947 1.2443	1.1062 1.2342	1.1419	Ave		1.2097			0.7000	5.0		20.0			
Anthracene	1.2313 1.2270	1.2109 1.2503	1.1620 1.2862	1.1241 1.2431	1.1622	Ave		1.2108			0.7000	4.3		20.0			
Carbazole	1.0911	1.1726 1.0579	1.0679 1.1001	1.0429 1.1111	1.0718	Ave		1.0894			0.0100	3.7		20.0			
Di-n-butyl phthalate	1.4497	1.4102 1.4571	1.3651 1.4752	1.3491 1.3966	1.4199	Ave		1.4154			0.0100	3.1		20.0			
Fluoranthene	1.4846 1.3814	1.3205 1.4116	1.2842 1.4574	1.2536 1.4331	1.2972	Ave		1.3693			0.6000	6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6922	0.3939 0.7462	0.4426 0.7550	0.4963 0.7182	0.5881	Lin1	-0.540	0.7376							0.9960		0.9900
Pyrene	1.4140 1.2745	1.2505 1.2945	1.2439 1.3496	1.2042 1.3086	1.2117	Ave		1.2835			0.6000	5.3		20.0			
Butyl benzyl phthalate	0.5839	0.5422 0.5762	0.5516 0.5937	0.5413 0.5775	0.5743	Ave		0.5676			0.0100	3.5		20.0			
3,3'-Dichlorobenzidine	0.4589	0.3567 0.4760	0.3731 0.4993	0.3892 0.4971	0.4175	Ave		0.4335			0.0100	13.1		20.0			
Bis(2-ethylhexyl) phthalate	0.8018	0.8396 0.7801	0.7919 0.7802	0.7747 0.7421	0.8053	Ave		0.7895			0.0100	3.6		20.0			
Benzo[a]anthracene	1.2536 1.1534	1.1486 1.1780	1.0978 1.2211	1.1054 1.1978	1.0935	Ave		1.1610			0.8000	4.9		20.0			
Chrysene	1.1362 1.0800	1.0760 1.0718	1.0317 1.1296	0.9841 1.1224	1.0361	Ave		1.0742			0.7000	4.7		20.0			
Di-n-octyl phthalate	1.5438	1.3557 1.5805	1.4060 1.6113	1.4267 1.6067	1.4667	Ave		1.4997			0.0100	6.6		20.0			
Benzo[b]fluoranthene	1.2300 1.2237	1.1302 1.3123	1.1949 1.2827	1.1559 1.3282	1.1202	Ave		1.2198			0.7000	6.3		20.0			
Benzo[k]fluoranthene	1.3705 1.2792	1.3167 1.3046	1.1679 1.4267	1.2287 1.3720	1.2364	Ave		1.3003			0.7000	6.3		20.0			
Benzo[a]pyrene	0.9437 1.1888	1.1006 1.2550	1.0794 1.2900	1.1104 1.3098	1.1003	Ave		1.1531			0.7000	10.2		20.0			
Indeno[1,2,3-cd]pyrene	1.0663 1.2661	1.1836 1.3288	1.1265 1.3762	1.1632 1.3820	1.1716	Ave		1.2294			0.5000	9.2		20.0			
Dibenz(a,h)anthracene	0.8903 1.0564	0.9038 1.1138	0.9045 1.1600	0.9532 1.1871	0.9596	Ave		1.0143			0.4000	11.5		20.0			
Benzo[g,h,i]perylene	1.0477 1.0586	0.9920 1.0912	1.0118 1.1356	0.9344 1.1484	0.9869	Ave		1.0452			0.5000	6.8		20.0			
2-Fluorophenol (Surr)	1.4205	1.4310 1.4327	1.4490 1.4474	1.4312 1.4738	1.4458	Ave		1.4414				1.1		20.0			
Phenol-d5 (Surr)	1.8285	1.8395 1.8284	1.9001 1.8330	1.8377 1.8447	1.8167	Ave		1.8411				1.4		20.0			
Nitrobenzene-d5 (Surr)	0.4774 0.4663	0.4830 0.4550	0.4437 0.4686	0.4598 0.4478	0.4593	Ave		0.4623				2.8		20.0			
2-Fluorobiphenyl (Surr)	1.4015 1.3284	1.3599 1.3356	1.3376 1.3740	1.2962 1.3518	1.2996	Ave		1.3427				2.5		20.0			
2,4,6-Tribromophenol (Surr)	0.1786	0.1462 0.1856	0.1558 0.1953	0.1603 0.1932	0.1649	Ave		0.1725				10.6		20.0			
Terphenyl-d14 (Surr)	1.0197 0.8069	0.8402 0.8325	0.8128 0.8556	0.7775 0.8514	0.7882	Ave		0.8428				8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50825001.D DFTPP Injection Date: 08/25/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:50

Analysis Batch No.: 194668

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.9	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	24.2	
365	Greater than 0.75% of mass 198	2.7	
441	Present, but less than mass 443	0.3	
442	40.0 - 110.0% of mass 198	73.6	
443	15.0 - 24.0% of mass 442	13.9	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-194668/2	50825002.D	08/25/2015	09:15
	MB 240-194401/12-A	50825003.D	08/25/2015	09:39
	LCS 240-194401/13-A	50825004.D	08/25/2015	10:03
	240-54590-D-9-B MS	50825006.D	08/25/2015	10:52
	240-54590-D-9-C MSD	50825007.D	08/25/2015	11:17
D-VS-F1-3-2	240-54590-2	50825008.D	08/25/2015	11:41
D-VS-F1-2-2	240-54590-1	50825009.D	08/25/2015	12:06
D-VB-F1-6-3	240-54590-5	50825010.D	08/25/2015	12:30
D-VB-F1-9-3	240-54590-8	50825011.D	08/25/2015	12:55
D-VB-F1-3-3	240-54590-4	50825012.D	08/25/2015	13:19
D-VB-F1-7-3	240-54590-6	50825013.D	08/25/2015	13:44
D-VB-F1-2-3	240-54590-3	50825014.D	08/25/2015	14:08
D-VB-F1-8-3	240-54590-7	50825015.D	08/25/2015	14:33

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID (1): CCV 240-194668/2 CCVIS Instrument ID (1): A4HP10

GC Column (1): DB-624 ID: 0.18(mm) Date Analyzed (1): 08/25/2015 09:15

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.89	100.0
Phenol-d5 (Surr)	5.77	100.0
Nitrobenzene-d5 (Surr)	6.60	100.0
Naphthalene	7.26	100.0
2-Fluorobiphenyl (Surr)	8.14	100.0
Acenaphthylene	8.62	100.0
Acenaphthene	8.77	100.0
Fluorene	9.20	100.0
2,4,6-Tribromophenol (Surr)	9.41	100.0
Phenanthrene	10.02	100.0
Anthracene	10.07	100.0
Fluoranthene	11.05	100.0
Pyrene	11.27	100.0
Terphenyl-d14 (Surr)	11.38	100.0
Benzo[a]anthracene	12.63	100.0
Chrysene	12.68	100.0
Benzo[b]fluoranthene	14.19	26.20
Benzo[k]fluoranthene	14.23	100.0
Benzo[a]pyrene	14.71	100.0
Indeno[1,2,3-cd]pyrene	16.53	100.0
Dibenz(a,h)anthracene	16.54	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6443	0.6141		9.53	10.0	-4.7	20.0
N-Nitrosodimethylamine	Ave	0.8874	0.8450		9.52	10.0	-4.8	20.0
Pyridine	Ave	1.688	1.581		9.37	10.0	-6.3	20.0
Benzaldehyde	Ave	1.264	1.196	0.0100	18.9	20.0	-5.4	20.0
Phenol	Ave	1.925	1.877	0.8000	9.75	10.0	-2.5	20.0
Aniline	Ave	2.361	2.284		9.68	10.0	-3.2	20.0
Bis(2-chloroethyl)ether	Ave	1.512	1.437	0.7000	9.50	10.0	-5.0	20.0
2-Chlorophenol	Ave	1.476	1.486	0.8000	10.1	10.0	0.7	20.0
n-Decane	Ave	1.587	1.523		9.60	10.0	-4.0	20.0
1,3-Dichlorobenzene	Ave	1.576	1.585		10.1	10.0	0.5	20.0
1,4-Dichlorobenzene	Ave	1.602	1.576		9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	0.9894	0.9474		9.58	10.0	-4.2	20.0
1,2-Dichlorobenzene	Ave	1.516	1.515		9.99	10.0	-0.0	20.0
2-Methylphenol	Ave	1.377	1.364	0.7000	9.91	10.0	-0.9	20.0
bis (2-chloroisopropyl) ether	Ave	1.626	1.487		9.14	10.0	-8.6	20.0
Indene	Ave	2.734	2.718		19.9	20.0	-0.6	20.0
3 & 4 Methylphenol	Ave	1.437	1.389		9.66	10.0	-3.4	20.0
N-Nitrosodi-n-propylamine	Ave	0.9586	0.8810	0.5000	9.19	10.0	-8.1	20.0
Acetophenone	Ave	2.092	1.945	0.0100	9.30	10.0	-7.0	20.0
Hexachloroethane	Ave	0.6564	0.6592	0.3000	10.0	10.0	0.4	20.0
Nitrobenzene	Ave	0.4155	0.4122	0.2000	9.92	10.0	-0.8	20.0
Isophorone	Ave	0.7693	0.7287	0.4000	9.47	10.0	-5.3	20.0
2-Nitrophenol	Ave	0.1731	0.1959	0.1000	11.3	10.0	13.1	20.0
2,4-Dimethylphenol	Ave	0.3913	0.3810	0.2000	9.73	10.0	-2.7	20.0
Benzoic acid	Lin1		0.1693		16.6	20.0	-17.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4519	0.4233	0.3000	9.37	10.0	-6.3	20.0
2,4-Dichlorophenol	Ave	0.3090	0.3185	0.2000	10.3	10.0	3.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3277	0.3335		10.2	10.0	1.8	20.0
Naphthalene	Ave	1.094	1.071	0.7000	9.79	10.0	-2.1	20.0
4-Chloroaniline	Ave	0.4553	0.4571	0.0100	10.0	10.0	0.4	20.0
2,6-Dichlorophenol	Ave	0.2979	0.3013		10.1	10.0	1.1	20.0
Hexachlorobutadiene	Ave	0.1907	0.1952	0.0100	10.2	10.0	2.4	20.0
Caprolactam	Ave	0.1136	0.1131	0.0100	19.9	20.0	-0.5	20.0
4-Chloro-3-methylphenol	Ave	0.3228	0.3176	0.2000	9.84	10.0	-1.6	20.0
2-Methylnaphthalene	Ave	0.7304	0.7100	0.4000	9.72	10.0	-2.8	20.0
1-Methylnaphthalene	Ave	0.6327	0.6169		9.75	10.0	-2.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5712	0.5842	0.0100	10.2	10.0	2.3	20.0
Hexachlorocyclopentadiene	Ave	0.3355	0.3674	0.0500	11.0	10.0	9.5	20.0
2,4,6-Trichlorophenol	Ave	0.3769	0.3914	0.2000	10.4	10.0	3.9	20.0
2,4,5-Trichlorophenol	Ave	0.3960	0.4141	0.2000	10.5	10.0	4.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.465	1.475	0.0100	10.1	10.0	0.7	20.0
2-Chloronaphthalene	Ave	1.184	1.182	0.8000	9.99	10.0	-0.1	20.0
2-Nitroaniline	Ave	0.3477	0.3706	0.0100	10.7	10.0	6.6	20.0
Dimethyl phthalate	Ave	1.368	1.387	0.0100	10.1	10.0	1.4	20.0
1,3-Dinitrobenzene	Lin1		0.2174		10.1	10.0	0.8	20.0
2,6-Dinitrotoluene	Ave	0.2977	0.3123		10.5	10.0	4.9	20.0
Acenaphthylene	Ave	1.800	1.860	0.9000	10.3	10.0	3.3	20.0
3-Nitroaniline	Ave	0.3012	0.3158	0.0100	10.5	10.0	4.8	20.0
2,4-Dinitrophenol	Lin1		0.1803	0.0100	21.0	20.0	4.9	20.0
Acenaphthene	Ave	1.155	1.150	0.9000	9.96	10.0	-0.4	20.0
4-Nitrophenol	Ave	0.1990	0.2050		20.6	20.0	3.0	20.0
2,4-Dinitrotoluene	Ave	0.3800	0.4156	0.2000	10.9	10.0	9.4	20.0
Dibenzofuran	Ave	1.691	1.702	0.8000	10.1	10.0	0.7	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3212	0.3293	0.0100	10.3	10.0	2.5	20.0
Diethyl phthalate	Ave	1.329	1.349	0.0100	10.2	10.0	1.5	20.0
Hexadecane	Ave	0.4966	0.4778		9.62	10.0	-3.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.6570	0.6667	0.4000	10.1	10.0	1.5	20.0
4-Nitroaniline	Ave	0.3070	0.3286	0.0100	10.7	10.0	7.1	20.0
Fluorene	Ave	1.381	1.397	0.9000	10.1	10.0	1.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1560	0.0100	21.0	20.0	5.2	20.0
N-Nitrosodiphenylamine	Ave	0.6160	0.6170	0.0100	20.0	20.0	0.2	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8868	0.8671		9.78	10.0	-2.2	20.0
Azobenzene	Ave	0.8865	0.8671		9.78	10.0	-2.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2309	0.2330	0.1000	10.1	10.0	0.9	20.0
Hexachlorobenzene	Ave	0.2524	0.2500	0.1000	9.91	10.0	-0.9	20.0
Atrazine	Ave	0.2375	0.2428	0.0100	20.5	20.0	2.3	20.0
Pentachlorophenol	Ave	0.1694	0.1763	0.0500	20.8	20.0	4.0	20.0
n-Octadecane	Ave	0.8164	0.7683		9.41	10.0	-5.9	20.0
Phenanthrene	Ave	1.210	1.213	0.7000	10.0	10.0	0.3	20.0
Anthracene	Ave	1.211	1.213	0.7000	10.0	10.0	0.2	20.0
Carbazole	Ave	1.089	1.124	0.0100	10.3	10.0	3.1	20.0
Di-n-butyl phthalate	Ave	1.415	1.457	0.0100	10.3	10.0	2.9	20.0
Fluoranthene	Ave	1.369	1.382	0.6000	10.1	10.0	0.9	20.0
Benzidine	Lin1		0.6939		19.5	20.0	-2.3	20.0
Pyrene	Ave	1.284	1.277	0.6000	9.95	10.0	-0.5	20.0
Butyl benzyl phthalate	Ave	0.5676	0.5925	0.0100	10.4	10.0	4.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4335	0.4728	0.0100	21.8	20.0	9.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7895	0.8206	0.0100	10.4	10.0	3.9	20.0
Benzo[a]anthracene	Ave	1.161	1.167	0.8000	10.1	10.0	0.5	20.0
Chrysene	Ave	1.074	1.077	0.7000	10.0	10.0	0.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 | Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 | Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.500	1.576	0.0100	10.5	10.0	5.1	20.0
Benzo[b]fluoranthene	Ave	1.220	1.251	0.7000	10.3	10.0	2.6	20.0
Benzo[k]fluoranthene	Ave	1.300	1.271	0.7000	9.77	10.0	-2.3	20.0
Benzo[a]pyrene	Ave	1.153	1.190	0.7000	10.3	10.0	3.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.229	1.300	0.5000	10.6	10.0	5.8	20.0
Dibenz(a,h)anthracene	Ave	1.014	1.084	0.4000	10.7	10.0	6.8	20.0
Benzo[g,h,i]perylene	Ave	1.045	1.069	0.5000	10.2	10.0	2.3	20.0
2-Fluorophenol (Surr)	Ave	1.441	1.442		10.0	10.0	0.0	20.0
Phenol-d5 (Surr)	Ave	1.841	1.780		9.67	10.0	-3.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4623	0.4654		10.1	10.0	0.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.343	1.349		10.0	10.0	0.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1725	0.1871		10.8	10.0	8.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8428	0.8204		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50825003.D Lab Sample ID: MB 240-194401/12-A

Matrix: Solid Date Extracted: 08/22/2015 09:42

Instrument ID: A4HP10 Date Analyzed: 08/25/2015 09:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194401/13-A	50825004.D	08/25/2015 10:03
	240-54590-D-9-B MS	50825006.D	08/25/2015 10:52
	240-54590-D-9-C MSD	50825007.D	08/25/2015 11:17
D-VS-F1-3-2	240-54590-2	50825008.D	08/25/2015 11:41
D-VS-F1-2-2	240-54590-1	50825009.D	08/25/2015 12:06
D-VB-F1-6-3	240-54590-5	50825010.D	08/25/2015 12:30
D-VB-F1-9-3	240-54590-8	50825011.D	08/25/2015 12:55
D-VB-F1-3-3	240-54590-4	50825012.D	08/25/2015 13:19
D-VB-F1-7-3	240-54590-6	50825013.D	08/25/2015 13:44
D-VB-F1-2-3	240-54590-3	50825014.D	08/25/2015 14:08
D-VB-F1-8-3	240-54590-7	50825015.D	08/25/2015 14:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194401/12-A

Matrix: Solid | Lab File ID: 50825003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30(g) | Date Analyzed: 08/25/2015 09:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	78		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	21		10-110

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F1-2-2	240-54590-1	73	75	66	73	25	85
D-VS-F1-3-2	240-54590-2	64	66	57	70	33	76
D-VB-F1-2-3	240-54590-3	64	67	60	66	32	83
D-VB-F1-3-3	240-54590-4	72	75	65	70	24	81
D-VB-F1-6-3	240-54590-5	63	65	57	64	18	81
D-VB-F1-7-3	240-54590-6	64	74	64	71	38	85
D-VB-F1-8-3	240-54590-7	67	70	60	67	31	84
D-VB-F1-9-3	240-54590-8	57	60	54	59	15	83
	MB 240-194401/12-A	72	82	74	78	21	90
	LCS 240-194401/13-A	85	84	81	80	43	92
	240-54590-D-9-B MS	0 X	0 X	0 X	0 X	0 X	0 X
	240-54590-D-9-C MSD	0 X	0 X	0 X	0 X	0 X	0 X

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825004.D

Lab ID: LCS 240-194401/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	538	81	38-110	
Acenaphthylene	667	551	83	40-110	
Anthracene	667	572	86	48-110	
Benzo[a]anthracene	667	586	88	50-110	
Benzo[a]pyrene	667	618	93	44-110	
Benzo[b]fluoranthene	667	591	89	43-110	
Benzo[g,h,i]perylene	667	615	92	51-110	
Benzo[k]fluoranthene	667	596	89	38-105	
Chrysene	667	610	91	50-110	
Dibenz(a,h)anthracene	667	627	94	51-110	
Fluoranthene	667	586	88	51-110	
Fluorene	667	546	82	46-110	
Indeno[1,2,3-cd]pyrene	667	624	94	50-110	
Naphthalene	667	544	82	36-110	
Phenanthrene	667	574	86	49-110	
Pyrene	667	576	86	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825006.D

Lab ID: 240-54590-D-9-B MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	836	850000	397000	-54065	22-110	4
Acenaphthylene	836	22000	13100	-1003	24-110	4
Anthracene	836	350000	160000	-23085	20-110	4
Benzo[a]anthracene	836	530000	279000	-30002	10-122	4
Benzo[a]pyrene	836	330000	164000	-19467	10-110	4
Benzo[b]fluoranthene	836	550000	301000	-29876	12-118	4
Benzo[g,h,i]perylene	836	150000	81400	-8805	10-117	4
Benzo[k]fluoranthene	836	210000	98900	-13797	10-121	4
Chrysene	836	410000	193000	-26149	10-125	4
Dibenz(a,h)anthracene	836	44000	25800	-2200	14-113	4
Fluoranthene	836	2500000	1360000	-131482	10-110	4
Fluorene	836	700000	299000	-47726	23-110	4
Indeno[1,2,3-cd]pyrene	836	140000	74000	-8281	10-114	4
Naphthalene	836	950000	262000	-81881	10-111	4
Phenanthrene	836	2700000	1350000	-156543	10-166	4
Pyrene	836	1700000	904000	-96629	10-147	4

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825007.D

Lab ID: 240-54590-D-9-C MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	852	580000	-31477	38	99	22-110	4
Acenaphthylene	852	15900	-663	19	99	24-110	4
Anthracene	852	230000	-14428	36	99	20-110	4
Benzo[a]anthracene	852	387000	-16786	32	99	10-122	4
Benzo[a]pyrene	852	241000	-10079	38	99	10-110	4
Benzo[b]fluoranthene	852	447000	-12182	39	99	12-118	4
Benzo[g,h,i]perylene	852	123000	-3799	40	99	10-117	4
Benzo[k]fluoranthene	852	149000	-7672	40	99	10-121	4
Chrysene	852	289000	-14391	40	99	10-125	4
Dibenz(a,h)anthracene	852	35600	-1012	32	99	14-113	4
Fluoranthene	852	1820000	-74956	29	99	10-110	4
Fluorene	852	449000	-29238	40	99	23-110	4
Indeno[1,2,3-cd]pyrene	852	112000	-3721	40	99	10-114	4
Naphthalene	852	500000	-52459	62	99	10-111	4
Phenanthrene	852	1960000	-82643	37	99	10-166	4
Pyrene	852	1230000	-56448	31	99	10-147	4

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: STD6 240-194072/10 Date Analyzed: 08/21/2015 13:49

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50821010.D Heated Purge: (Y/N) N

Calibration ID: 30232

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224220	6.13	879627	7.24	521434	8.75
UPPER LIMIT		448440	6.63	1759254	7.74	1042868	9.25
LOWER LIMIT		112110	5.63	439814	6.74	260717	8.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194072/11		229197	6.13	924447	7.24	542195	8.75
CCV 240-194668/2 CCVIS		203356	6.12	780563	7.23	437094	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: STD6 240-194072/10 Date Analyzed: 08/21/2015 13:49

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50821010.D Heated Purge: (Y/N) N

Calibration ID: 30232

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		851220	10.01	954139	12.66	878332	14.80
UPPER LIMIT		1702440	10.51	1908278	13.16	1756664	15.30
LOWER LIMIT		425610	9.51	477070	12.16	439166	14.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194072/11		880815	10.01	991122	12.66	921925	14.80
CCV 240-194668/2 CCVIS		715015	10.01	789914	12.64	743101	14.79

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: CCV 240-194668/2 Date Analyzed: 08/25/2015 09:15

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50825002.D Heated Purge: (Y/N) N

Calibration ID: 30282

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203356	6.12	780563	7.23	437094	8.74
UPPER LIMIT		406712	6.62	1561126	7.73	874188	9.24
LOWER LIMIT		101678	5.62	390282	6.73	218547	8.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194401/12-A		173018	6.12	722461	7.23	444284	8.74
LCS 240-194401/13-A		167829	6.12	693880	7.23	421481	8.74
240-54590-D-9-B MS		190043	6.12	758322	7.23	455033	8.74
240-54590-D-9-C MSD		188778	6.12	757431	7.23	456550	8.74
240-54590-2	D-VS-F1-3-2	188150	6.12	759148	7.23	449898	8.74
240-54590-1	D-VS-F1-2-2	184140	6.12	750597	7.23	459267	8.74
240-54590-5	D-VB-F1-6-3	189245	6.12	779612	7.23	468841	8.74
240-54590-8	D-VB-F1-9-3	195306	6.12	765028	7.23	471079	8.74
240-54590-4	D-VB-F1-3-3	186163	6.12	773121	7.23	471672	8.74
240-54590-6	D-VB-F1-7-3	189103	6.12	776189	7.23	457308	8.74
240-54590-3	D-VB-F1-2-3	189778	6.12	773126	7.23	465918	8.74
240-54590-7	D-VB-F1-8-3	179661	6.12	747601	7.23	448238	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: CCV 240-194668/2 Date Analyzed: 08/25/2015 09:15

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50825002.D Heated Purge: (Y/N) N

Calibration ID: 30282

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		715015	10.01	789914	12.64	743101	14.79
UPPER LIMIT		1430030	10.51	1579828	13.14	1486202	15.29
LOWER LIMIT		357508	9.51	394957	12.14	371551	14.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194401/12-A		726756	10.00	799333	12.64	716423	14.78
LCS 240-194401/13-A		690162	10.01	780175	12.64	722450	14.79
240-54590-D-9-B MS		756049	10.01	851176	12.64	797023	14.78
240-54590-D-9-C MSD		755191	10.00	843973	12.64	790916	14.78
240-54590-2	D-VS-F1-3-2	775949	10.00	863444	12.64	786273	14.79
240-54590-1	D-VS-F1-2-2	768343	10.00	851369	12.64	765361	14.79
240-54590-5	D-VB-F1-6-3	786890	10.00	883840	12.64	784669	14.79
240-54590-8	D-VB-F1-9-3	778188	10.00	869047	12.64	769820	14.79
240-54590-4	D-VB-F1-3-3	787574	10.00	866163	12.63	752978	14.78
240-54590-6	D-VB-F1-7-3	784835	10.00	841354	12.64	736997	14.78
240-54590-3	D-VB-F1-2-3	771151	10.00	854967	12.64	741689	14.78
240-54590-7	D-VB-F1-8-3	750763	10.00	825999	12.64	713003	14.78

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

SAMPLE ID	**D-VS-F1-3-2**	

SAMPLE CALC **for fluoranthene**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (ng/uL)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION (ug/kg)
775949	4	2671391	4	2	1.3693	2990.80

PERCENT SOLID	SampleWeight (g)
90	29.89

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1
SDG No.:
Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54590-2
Matrix: Solid | Lab File ID: 50825008.D
Analysis Method: 8270D | Date Collected: 08/19/2015 16:05
Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42
Sample wt/vol: 29.89(g) | Date Analyzed: 08/25/2015 11:41
Con. Extract Vol.: 2(mL) | Dilution Factor: 4
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 10.0 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160		30	3.4
208-96-8	Acenaphthylene	22	J	30	1.6
120-12-7	Anthracene	350		30	3.5
56-55-3	Benzo[a]anthracene	1100		30	2.8
50-32-8	Benzo[a]pyrene	990		30	2.9
205-99-2	Benzo[b]fluoranthene	1400		30	2.6
191-24-2	Benzo[g,h,i]perylene	500		30	1.6
207-08-9	Benzo[k]fluoranthene	560		30	3.0
218-01-9	Chrysene	1200		30	4.9
53-70-3	Dibenz(a,h)anthracene	150		30	2.9
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	120		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	470		30	1.6
91-20-3	Naphthalene	39		30	3.7
85-01-8	Phenanthrene	1400		30	3.3
129-00-0	Pyrene	2400		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

TestAmerica Canton
Target Compound Quantitation Report

Sample Calculation

Data File: \\ChromNA\Canton\ChromData\A4HP10\20150825-46633.b\50825008.D
Lims ID: 240-54590-B-2-A Lab Sample ID: 240-54590-2
Client ID: D-VS-F1-3-2
Sample Type: Client
Inject. Date: 25-Aug-2015 11:41:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 4.0000
Sample Info: 240-0046633-008
Misc. Info.: 240-54590-B-2-A
Operator ID: 001710 Instrument ID: A4HP10

Method: \\ChromNA\Canton\ChromData\A4HP10\20150825-46633.b\8270_10.m
Limit Group: MSS 8270D ICAL
Last Update: 25-Aug-2015 11:09:20 Calib Date: 21-Aug-2015 21:08:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP10\20150820-46489.b\50821028.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK037

First Level Reviewer: gruberj Date: 25-Aug-2015 13:07:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.115	6.115	0.000	97	188150	4.00	
* 2 Naphthalene-d8	136	7.232	7.232	0.000	100	759148	4.00	
* 3 Acenaphthene-d10	164	8.736	8.736	0.000	91	449898	4.00	
* 4 Phenanthrene-d10	188	9.999	10.005	-0.006	95	775949	4.00	
* 5 Chrysene-d12	240	12.637	12.643	-0.006	97	863444	4.00	
* 6 Perylene-d12	264	14.788	14.788	0.000	98	786273	4.00	
$ 7 2-Fluorophenol	112	4.899	4.887	0.012	92	109262	1.61	
$ 8 Phenol-d5	99	5.763	5.769	-0.006	97	143954	1.66	
$ 9 Nitrobenzene-d5	82	6.591	6.597	-0.006	88	124473	1.42	
$ 10 2-Fluorobiphenyl (Surr)	172	8.142	8.142	0.000	99	264245	1.75	
$ 11 2,4,6-Tribromophenol	330	9.406	9.406	0.000	90	16234	0.8368	
$ 12 Terphenyl-d14	244	11.374	11.380	-0.006	100	343826	1.89	
74 Naphthalene	128	7.249	7.255	-0.006	97	27021	0.1302	
109 Acenaphthylene	152	8.618	8.618	0.000	94	15298	0.0755	
112 Acenaphthene	153	8.765	8.765	0.000	95	68538	0.5277	
126 Fluorene	166	9.200	9.200	0.000	95	61517	0.3959	
149 Phenanthrene	178	10.023	10.023	0.000	96	1092160	4.65	
150 Anthracene	178	10.064	10.070	-0.006	96	274799	1.17	
160 Fluoranthene	202	11.051	11.051	0.000	97	2671391	10.1	
162 Pyrene	202	11.268	11.274	-0.006	97	2255454	8.14	
179 Benzo[a]anthracene	228	12.620	12.625	-0.005	98	953611	3.81	
180 Chrysene	228	12.672	12.678	-0.006	97	933249	4.02	
184 Benzo[b]fluoranthene	252	14.188	14.194	-0.006	97	1143621	4.77	
185 Benzo[k]fluoranthene	252	14.224	14.229	-0.005	97	481510	1.88	M
186 Benzo[a]pyrene	252	14.700	14.705	-0.005	77	757708	3.34	
190 Indeno[1,2,3-cd]pyrene	276	16.515	16.533	-0.018	96	382583	1.58	
191 Dibenz(a,h)anthracene	278	16.527	16.544	-0.017	53	101201	0.5076	
192 Benzo[g,h,i]perylene	276	17.003	17.014	-0.011	97	348389	1.70	

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3369	0.2865 0.3420	0.2906 0.3564	0.2907 0.3529	0.3133	Ave		0.3212			0.0100	9.2		20.0			
Diethyl phthalate	1.3471	1.3648 1.3401	1.3153 1.3587	1.2796 1.3179	1.3096	Ave		1.3291			0.0100	2.2		20.0			
Hexadecane	0.4800	0.5652 0.4617	0.5692 0.4418	0.5230 0.4153	0.5165	Ave		0.4966				11.3		20.0			
4-Chlorophenyl phenyl ether	0.6492	0.6417 0.6691	0.6533 0.6930	0.6379 0.6810	0.6309	Ave		0.6570			0.4000	3.3		20.0			
4-Nitroaniline	0.3223	0.2650 0.3255	0.2897 0.3201	0.3051 0.3114	0.3166	Ave		0.3070			0.0100	6.7		20.0			
Fluorene	1.4846 1.3760	1.3807 1.4094	1.3236 1.4259	1.3004 1.3955	1.3370	Ave		1.3815			0.9000	4.1		20.0			
4,6-Dinitro-2-methylphenol	0.1421	+++++ 0.1527	0.0663 0.1576	0.0896 0.1572	0.1153	Lin1	-0.243	0.1598			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.6184	0.6291 0.6206	0.6130 0.6261	0.5958 0.6215	0.6030	Ave		0.6160			0.0100	1.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8800	0.9411 0.8696	0.8983 0.8783	0.8773 0.8528	0.8970	Ave		0.8865				2.9		20.0			
Azobenzene	0.8803	0.9392 0.8694	0.8982 0.8785	0.8761 0.8529	0.8975	Ave		0.8865				2.9		20.0			
4-Bromophenyl phenyl ether	0.2348	0.2449 0.2354	0.2129 0.2433	0.2084 0.2456	0.2218	Ave		0.2309			0.1000	6.4		20.0			
Hexachlorobenzene	0.2908 0.2406	0.2548 0.2496	0.2465 0.2570	0.2301 0.2587	0.2434	Ave		0.2524			0.1000	6.7		20.0			
Atrazine	0.2408	0.2500 0.2351	0.2405 0.2363	0.2312 0.2288	0.2371	Ave		0.2375			0.0100	2.7		20.0			
Pentachlorophenol	0.1838	0.1445 0.1883	0.1363 0.1976	0.1472 0.1964	0.1615	Ave		0.1694			0.0500	14.7		20.0			
n-Octadecane	0.7939	0.9361 0.7451	0.9188 0.7119	0.8801 0.6645	0.8809	Ave		0.8164				12.5		20.0			
Phenanthrene	1.3172 1.2084	1.2327 1.2073	1.1947 1.2443	1.1062 1.2342	1.1419	Ave		1.2097			0.7000	5.0		20.0			
Anthracene	1.2313 1.2270	1.2109 1.2503	1.1620 1.2862	1.1241 1.2431	1.1622	Ave		1.2108			0.7000	4.3		20.0			
Carbazole	1.0911	1.1726 1.0579	1.0679 1.1001	1.0429 1.1111	1.0718	Ave		1.0894			0.0100	3.7		20.0			
Di-n-butyl phthalate	1.4497	1.4102 1.4571	1.3651 1.4752	1.3491 1.3966	1.4199	Ave		1.4154			0.0100	3.1		20.0			
Fluoranthene	1.4846 1.3814	1.3205 1.4116	1.2842 1.4574	1.2536 1.4331	1.2972	Ave		1.3693			0.6000	6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

GC/MS SEMI VOA BATCH WORKSHEET

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Batch Number: 194401 Batch Start Date: 08/22/15 10:30 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/23/15 02:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00049	exBNASURR W 00026	
240-54590-B-1	D-VS-F1-2-2	3540C, 8270D	T	29.78 g	2 mL			1 mL	
240-54590-B-2	D-VS-F1-3-2	3540C, 8270D	T	29.89 g	2 mL			1 mL	
240-54590-B-3	D-VB-F1-2-3	3540C, 8270D	T	29.94 g	2 mL			1 mL	
240-54590-B-4	D-VB-F1-3-3	3540C, 8270D	T	30.17 g	2 mL			1 mL	
240-54590-B-5	D-VB-F1-6-3	3540C, 8270D	T	30.39 g	2 mL			1 mL	
240-54590-B-6	D-VB-F1-7-3	3540C, 8270D	T	29.66 g	2 mL			1 mL	
240-54590-B-7	D-VB-F1-8-3	3540C, 8270D	T	30.22 g	2 mL			1 mL	
240-54590-B-8	D-VB-F1-9-3	3540C, 8270D	T	29.65 g	2 mL			1 mL	
240-54590-D-9 MS		3540C, 8270D	T	30.33 g	2 mL	1 mL	1 mL	1 mL	
240-54590-D-9 MSD		3540C, 8270D	T	29.75 g	2 mL	1 mL	1 mL	1 mL	
MB 240-194401/12		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-194401/13		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 13, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54086-1

SAMPLES: 10 / Soil / PAHs

D-DUP01-080615	D-VB-A-2-2	D-VB-B-1-2
D-VB-B-2-2	D-VB-B-3-2	D-VS-A-2-1
D-VS-B-1-1	D-VS-B-2-1	D-VS-B-3-1
D-VS-B-4-1		

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54086-1, consists of ten (10) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). One field duplicate pair is included in this SDG: D-VB-B-3-2 (original) / D-DUP01-080615 (duplicate).

The samples were collected by Tetra Tech on August 6, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- In the field duplicate pair samples (D-VB-B-3-2 / D-DUP01-080615), the relative percent difference (RPD) was greater than the quality control limit of 50% for benzo(b)fluoranthene. Detected results for benzo(b)fluoranthene were qualified as estimated (J) in the field duplicate pair samples.

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

The laboratory sample receipt form and case narrative indicate that the jar for D-VS-B-3-1 was broken and the sample was transferred to a new jar.

No matrix spike (MS)/matrix spike duplicate (MSD) analysis was performed for this SDG. No action was taken.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Some detected results for one analyte were qualified for field duplicate imprecision. Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
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Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP01-080615			D-VB-A-2-2			D-VB-B-1-2			D-VB-B-2-2		
SDG: 240-54086-1	LAB_ID	240-54086-8			240-54086-10			240-54086-5			240-54086-6		
FRACTION: PAH	SAMP_DATE	8/6/2015			8/6/2015			8/6/2015			8/6/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.1			89.1			88.2			84.6		
	DUP_OF	D-VB-B-3-2											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		12			18			4.8	J	P	5.8	J	P
ACENAPHTHYLENE		0.39	U		0.4	U		0.4	U		0.41	U	
ANTHRACENE		11			18			0.89	U		4.7	J	P
BENZO(A)ANTHRACENE		16			74			4.6	J	P	11		
BENZO(A)PYRENE		13			80			4	J	P	9.4		
BENZO(B)FLUORANTHENE		19	J	G	88			5.9	J	P	11		
BENZO(G,H,I)PERYLENE		10			58			0.4	U		9.3		
BENZO(K)FLUORANTHENE		8.4			68			0.78	U		6.9	J	P
CHRYSENE		21			81			8.9			15		
DIBENZO(A,H)ANTHRACENE		0.73	U		13			0.75	U		0.77	U	
FLUORANTHENE		43			120			14			27		
FLUORENE		12			16			4.4	J	P	7.1	J	P
INDENO(1,2,3-CD)PYRENE		11			50			0.4	U		6.1	J	P
NAPHTHALENE		14			140			9.8			12		
PHENANTHRENE		57			71			15			23		
PYRENE		36			110			10			22		

PROJ_NO: 07483	NSAMPLE	D-VB-B-3-2			D-VS-A-2-1			D-VS-B-1-1			D-VS-B-2-1		
SDG: 240-54086-1	LAB_ID	240-54086-7			240-54086-9			240-54086-1			240-54086-2		
FRACTION: PAH	SAMP_DATE	8/6/2015			8/6/2015			8/6/2015			8/6/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.7			84.0			84.7			84.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		15			0.9	U		9.8			0.89	U	
ACENAPHTHYLENE		0.4	U		0.42	U		0.41	U		0.41	U	
ANTHRACENE		12			0.93	U		0.92	U		4.5	J	P
BENZO(A)ANTHRACENE		26			0.75	U		9.6			17		
BENZO(A)PYRENE		25			0.76	U		10			14		
BENZO(B)FLUORANTHENE		36	J	G	4.4	J	P	13			22		
BENZO(G,H,I)PERYLENE		21			0.42	U		8.8			9.9		
BENZO(K)FLUORANTHENE		11			0.81	U		8.7			9.2		
CHRYSENE		34			1.3	U		17			24		
DIBENZO(A,H)ANTHRACENE		0.76	U		0.78	U		0.78	U		0.77	U	
FLUORANTHENE		55			4.7	J	P	39			37		
FLUORENE		15			0.63	U		29			4.5	J	P
INDENO(1,2,3-CD)PYRENE		16			0.42	U		5.4	J	P	7.8		
NAPHTHALENE		17			0.97	U		8.2			12		
PHENANTHRENE		54			0.87	U		51			21		
PYRENE		46			7.3	J	P	34			31		

PROJ_NO: 07483	NSAMPLE	D-VS-B-3-1			D-VS-B-4-1		
SDG: 240-54086-1	LAB_ID	240-54086-3			240-54086-4		
FRACTION: PAH	SAMP_DATE	8/6/2015			8/6/2015		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	85.7			85.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.89	U		7	J	P
ACENAPHTHYLENE		0.41	U		0.41	U	
ANTHRACENE		0.91	U		0.91	U	
BENZO(A)ANTHRACENE		0.73	U		4.3	J	P
BENZO(A)PYRENE		0.75	U		0.75	U	
BENZO(B)FLUORANTHENE		0.69	U		4.2	J	P
BENZO(G,H,I)PERYLENE		0.41	U		0.41	U	
BENZO(K)FLUORANTHENE		0.79	U		0.79	U	
CHRYSENE		1.3	U		4.4	J	P
DIBENZO(A,H)ANTHRACENE		0.77	U		0.77	U	
FLUORANTHENE		6.3	J	P	11		
FLUORENE		0.62	U		18		
INDENO(1,2,3-CD)PYRENE		0.41	U		0.41	U	
NAPHTHALENE		0.96	U		4.6	J	P
PHENANTHRENE		5.7	J	P	25		
PYRENE		5.7	J	P	8.6		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-DUP01-080615 | Lab Sample ID: 240-54086-8

Matrix: Solid | Lab File ID: 50812014.D

Analysis Method: 8270D | Date Collected: 08/06/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.92(g) | Date Analyzed: 08/12/2015 12:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	12		7.4	0.85
208-96-8	Acenaphthylene	0.39	U	7.4	0.39
120-12-7	Anthracene	11		7.4	0.87
56-55-3	Benzo[a]anthracene	16		7.4	0.70
50-32-8	Benzo[a]pyrene	13		7.4	0.71
205-99-2	Benzo[b]fluoranthene	19		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	10		7.4	0.39
207-08-9	Benzo[k]fluoranthene	8.4		7.4	0.76
218-01-9	Chrysene	21		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	0.73	U	7.4	0.73
206-44-0	Fluoranthene	43		7.4	0.61
86-73-7	Fluorene	12		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	11		7.4	0.39
91-20-3	Naphthalene	14		7.4	0.91
85-01-8	Phenanthrene	57		7.4	0.81
129-00-0	Pyrene	36		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	57		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-A-2-2 | Lab Sample ID: 240-54086-10

Matrix: Solid | Lab File ID: 50812016.D

Analysis Method: 8270D | Date Collected: 08/06/2015 14:05

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.78(g) | Date Analyzed: 08/12/2015 13:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	18		7.5	0.86
208-96-8	Acenaphthylene	0.40	U	7.5	0.40
120-12-7	Anthracene	18		7.5	0.88
56-55-3	Benzo[a]anthracene	74		7.5	0.71
50-32-8	Benzo[a]pyrene	80		7.5	0.72
205-99-2	Benzo[b]fluoranthene	88		7.5	0.67
191-24-2	Benzo[g,h,i]perylene	58		7.5	0.40
207-08-9	Benzo[k]fluoranthene	68		7.5	0.77
218-01-9	Chrysene	81		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	13		7.5	0.75
206-44-0	Fluoranthene	120		7.5	0.62
86-73-7	Fluorene	16		7.5	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	50		7.5	0.40
91-20-3	Naphthalene	140		7.5	0.93
85-01-8	Phenanthrene	71		7.5	0.82
129-00-0	Pyrene	110		7.5	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		36-110
4165-62-2	Phenol-d5 (Surr)	63		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	58		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	48		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-1-2 | Lab Sample ID: 240-54086-5

Matrix: Solid | Lab File ID: 50812011.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.80(g) | Date Analyzed: 08/12/2015 11:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.8	J	7.6	0.87
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	0.89	U	7.6	0.89
56-55-3	Benzo[a]anthracene	4.6	J	7.6	0.72
50-32-8	Benzo[a]pyrene	4.0	J	7.6	0.73
205-99-2	Benzo[b]fluoranthene	5.9	J	7.6	0.67
191-24-2	Benzo[g,h,i]perylene	0.40	U	7.6	0.40
207-08-9	Benzo[k]fluoranthene	0.78	U	7.6	0.78
218-01-9	Chrysene	8.9		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	14		7.6	0.63
86-73-7	Fluorene	4.4	J	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	0.40	U	7.6	0.40
91-20-3	Naphthalene	9.8		7.6	0.94
85-01-8	Phenanthrene	15		7.6	0.83
129-00-0	Pyrene	10		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	59		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-2-2 | Lab Sample ID: 240-54086-6

Matrix: Solid | Lab File ID: 50812012.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:20

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.24(g) | Date Analyzed: 08/12/2015 11:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.8	J	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.7	J	7.8	0.91
56-55-3	Benzo[a]anthracene	11		7.8	0.74
50-32-8	Benzo[a]pyrene	9.4		7.8	0.75
205-99-2	Benzo[b]fluoranthene	11		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	9.3		7.8	0.41
207-08-9	Benzo[k]fluoranthene	6.9	J	7.8	0.80
218-01-9	Chrysene	15		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	27		7.8	0.64
86-73-7	Fluorene	7.1	J	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	6.1	J	7.8	0.41
91-20-3	Naphthalene	12		7.8	0.96
85-01-8	Phenanthrene	23		7.8	0.86
129-00-0	Pyrene	22		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	61		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-3-2 | Lab Sample ID: 240-54086-7

Matrix: Solid | Lab File ID: 50812013.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:25

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.73(g) | Date Analyzed: 08/12/2015 12:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.7	0.87
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	12		7.7	0.90
56-55-3	Benzo[a]anthracene	26		7.7	0.72
50-32-8	Benzo[a]pyrene	25		7.7	0.74
205-99-2	Benzo[b]fluoranthene	36		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	21		7.7	0.40
207-08-9	Benzo[k]fluoranthene	11		7.7	0.78
218-01-9	Chrysene	34		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	55		7.7	0.63
86-73-7	Fluorene	15		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	16		7.7	0.40
91-20-3	Naphthalene	17		7.7	0.94
85-01-8	Phenanthrene	54		7.7	0.84
129-00-0	Pyrene	46		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-A-2-1 | Lab Sample ID: 240-54086-9

Matrix: Solid | Lab File ID: 50812015.D

Analysis Method: 8270D | Date Collected: 08/06/2015 14:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.10(g) | Date Analyzed: 08/12/2015 13:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	4.4	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	4.7	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	7.3	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-1-1 | Lab Sample ID: 240-54086-1

Matrix: Solid | Lab File ID: 50812007.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.16(g) | Date Analyzed: 08/12/2015 09:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.8		7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.92	U	7.8	0.92
56-55-3	Benzo[a]anthracene	9.6		7.8	0.74
50-32-8	Benzo[a]pyrene	10		7.8	0.75
205-99-2	Benzo[b]fluoranthene	13		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	8.8		7.8	0.41
207-08-9	Benzo[k]fluoranthene	8.7		7.8	0.80
218-01-9	Chrysene	17		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.8	0.78
206-44-0	Fluoranthene	39		7.8	0.65
86-73-7	Fluorene	29		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	5.4	J	7.8	0.41
91-20-3	Naphthalene	8.2		7.8	0.96
85-01-8	Phenanthrene	51		7.8	0.86
129-00-0	Pyrene	34		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		36-110
4165-62-2	Phenol-d5 (Surr)	63		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	50		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-2-1 | Lab Sample ID: 240-54086-2

Matrix: Solid | Lab File ID: 50812008.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:05

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.38(g) | Date Analyzed: 08/12/2015 10:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.5	J	7.8	0.91
56-55-3	Benzo[a]anthracene	17		7.8	0.73
50-32-8	Benzo[a]pyrene	14		7.8	0.75
205-99-2	Benzo[b]fluoranthene	22		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	9.9		7.8	0.41
207-08-9	Benzo[k]fluoranthene	9.2		7.8	0.79
218-01-9	Chrysene	24		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	37		7.8	0.64
86-73-7	Fluorene	4.5	J	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	7.8		7.8	0.41
91-20-3	Naphthalene	12		7.8	0.96
85-01-8	Phenanthrene	21		7.8	0.85
129-00-0	Pyrene	31		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	56		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-3-1 | Lab Sample ID: 240-54086-3

Matrix: Solid | Lab File ID: 50812009.D

Analysis Method: 8270D | Date Collected: 08/06/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.04(g) | Date Analyzed: 08/12/2015 10:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	0.69	U	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	6.3	J	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	5.7	J	7.8	0.85
129-00-0	Pyrene	5.7	J	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	73		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	71		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	65		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-4-1 | Lab Sample ID: 240-54086-4

Matrix: Solid | Lab File ID: 50812010.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:10

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.12(g) | Date Analyzed: 08/12/2015 11:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.0	J	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	4.3	J	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	4.2	J	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	4.4	J	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	11		7.8	0.64
86-73-7	Fluorene	18		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	4.6	J	7.8	0.95
85-01-8	Phenanthrene	25		7.8	0.85
129-00-0	Pyrene	8.6		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	65		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		10-110

APPENDIX C

SUPPORT DOCUMENTATION

3.2 | C4.2

Chain of Custody Record

#26 016175

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: JOSH MILLS	Date: 8/6/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412-559-8133	Lab Contact: JOHN. MCFADDEN	Carrier: FEDEX	1 of 1 COCs
Address: 20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — 3 DAY			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
P O # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	PAH (8270D)	Sample Specific Notes:
D-VS-B-1-1	8/6/15	1000	C	SOIL	1			X	
D-VS-B-2-1		1005						X	
D-VS-B-3-1		1200						X	
D-VS-B-4-1		1010						X	
D-VB-B-1-2		1015						X	
D-VB-B-2-2		1020						X	
D-VB-B-3-2		1025						X	
D-DUP01-080615	8/6/15	—						X	
D-VS-A-2-1		1400						X	
D-VB-A-2-2		1405						X	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES FOR BLOCK D AREAS A AND B

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	8/6/15 1540		TestAmerica	8/6/15 1540
Relinquished by:	TestAmerica	8/6/1620		TA	8/7/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 54086**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Alex Cole

Cooler Received on 8/7/15 Opened on 8/7/15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 4.2 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2.	Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
	-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
	-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3.	Shippers' packing slip attached to the cooler(s)?	Yes	No
4.	Did custody papers accompany the sample(s)?	Yes	No
5.	Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7.	Did all bottles arrive in good condition (Unbroken)?	Yes	No
8.	Could all bottle labels be reconciled with the COC?	Yes	No
9.	Were correct bottle(s) used for the test(s) indicated?	Yes	No
10.	Sufficient quantity received to perform indicated analyses?	Yes	No
11.	Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12.	Were VOAs on the COC?	Yes	No
13.	Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14.	Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

D-US-B-3-1 jar broken & rejarred, possible glass present.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54086-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/7/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2º C.

Sample D-VS-B-3-1 (240-54086-3) was received in a cracked / broken jar. The sample was transferred to a new container.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-B-1-1 (240-54086-1), D-VS-B-2-1 (240-54086-2), D-VS-B-3-1 (240-54086-3), D-VS-B-4-1 (240-54086-4), D-VB-B-1-2 (240-54086-5), D-VB-B-2-2 (240-54086-6), D-VB-B-3-2 (240-54086-7), D-DUP01-080615 (240-54086-8), D-VS-A-2-1 (240-54086-9) and D-VB-A-2-2 (240-54086-10) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/10/2015 and analyzed on 08/12/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-B-1-1 (240-54086-1), D-VS-B-2-1 (240-54086-2), D-VS-B-3-1 (240-54086-3), D-VS-B-4-1 (240-54086-4), D-VB-B-1-2 (240-54086-5), D-VB-B-2-2 (240-54086-6), D-VB-B-3-2 (240-54086-7), D-DUP01-080615 (240-54086-8), D-VS-A-2-1 (240-54086-9) and D-VB-A-2-2 (240-54086-10) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/07/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54086-1	D-VS-B-1-1	Solid	08/06/2015 1000	08/07/2015 0930
240-54086-2	D-VS-B-2-1	Solid	08/06/2015 1005	08/07/2015 0930
240-54086-3	D-VS-B-3-1	Solid	08/06/2015 1200	08/07/2015 0930
240-54086-4	D-VS-B-4-1	Solid	08/06/2015 1010	08/07/2015 0930
240-54086-5	D-VB-B-1-2	Solid	08/06/2015 1015	08/07/2015 0930
240-54086-6	D-VB-B-2-2	Solid	08/06/2015 1020	08/07/2015 0930
240-54086-7	D-VB-B-3-2	Solid	08/06/2015 1025	08/07/2015 0930
240-54086-8	D-DUP01-080615	Solid	08/06/2015 0000	08/07/2015 0930
240-54086-9	D-VS-A-2-1	Solid	08/06/2015 1400	08/07/2015 0930
240-54086-10	D-VB-A-2-2	Solid	08/06/2015 1405	08/07/2015 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FIELD DUPLICATE PRECISION

ANALYTE	D-VB-B-3-2	QUAL	D-DUP01-080615	QUAL	RPD	DIFFERENCE	RL
ACENAPHTHENE	15		12		22.22	3	7.7
ACENAPHTHYLENE	0.4	U	0.39	U	2.53	0.01	7.7
ANTHRACENE	12		11		8.70	1	7.7
BENZO(A)ANTHRACENE	26		16		47.62	10	7.7
BENZO(A)PYRENE	25		13		63.16	12	7.7
BENZO(B)FLUORANTHENE	36		19		61.82	17	7.7
BENZO(G,H,I)PERYLENE	21		10		70.97	11	7.7
BENZO(K)FLUORANTHENE	11		8.4		26.80	2.6	7.7
CHRYSENE	34		21		47.27	13	7.7
DIBENZO(A,H)ANTHRACENE	0.76	U	0.73	U	4.03	0.03	7.7
FLUORANTHENE	55		43		24.49	12	7.7
FLUORENE	15		12		22.22	3	7.7
INDENO(1,2,3-CD)PYRENE	16		11		37.04	5	7.7
NAPHTHALENE	17		14		19.35	3	7.7
PHENANTHRENE	54		57		5.41	3	7.7
PYRENE	46		36		24.39	10	7.7

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50812001.D DFTPP Injection Date: 08/12/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:21

Analysis Batch No.: 192864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.7	
70	Less than 2.0% of mass 69	0.3	(0.3)1
127	25.0 - 75.0% of mass 198	59.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	53.8	
443	15.0 - 24.0% of mass 442	10.2	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-192864/2	50812002.D	08/12/2015	07:43
	CCV 240-192864/3	50812003.D	08/12/2015	08:09
	MB 240-192506/23-A	50812005.D	08/12/2015	08:59
	LCS 240-192506/24-A	50812006.D	08/12/2015	09:24
D-VS-B-1-1	240-54086-1	50812007.D	08/12/2015	09:50
D-VS-B-2-1	240-54086-2	50812008.D	08/12/2015	10:15
D-VS-B-3-1	240-54086-3	50812009.D	08/12/2015	10:41
D-VS-B-4-1	240-54086-4	50812010.D	08/12/2015	11:06
D-VB-B-1-2	240-54086-5	50812011.D	08/12/2015	11:32
D-VB-B-2-2	240-54086-6	50812012.D	08/12/2015	11:57
D-VB-B-3-2	240-54086-7	50812013.D	08/12/2015	12:23
D-DUP01-080615	240-54086-8	50812014.D	08/12/2015	12:48
D-VS-A-2-1	240-54086-9	50812015.D	08/12/2015	13:14
D-VB-A-2-2	240-54086-10	50812016.D	08/12/2015	13:39

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID (1): CCV 240-192864/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/12/2015 07:43

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	5.11	100.0
Phenol-d5 (Surr)	5.97	100.0
Nitrobenzene-d5 (Surr)	6.81	100.0
Naphthalene	7.47	100.0
2-Fluorobiphenyl (Surr)	8.35	100.0
Acenaphthylene	8.83	100.0
Acenaphthene	8.98	100.0
Fluorene	9.42	100.0
2,4,6-Tribromophenol (Surr)	9.62	100.0
Phenanthrene	10.24	100.0
Anthracene	10.28	100.0
Fluoranthene	11.25	100.0
Pyrene	11.46	100.0
Terphenyl-d14 (Surr)	11.54	100.0
Benzo[a]anthracene	12.49	100.0
Chrysene	12.52	100.0
Benzo[b]fluoranthene	13.69	31.30
Benzo[k]fluoranthene	13.73	100.0
Benzo[a]pyrene	14.16	100.0
Indeno[1,2,3-cd]pyrene	16.13	100.0
Dibenz(a,h)anthracene	16.13	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 | Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9305		9.44	10.0	-5.6	20.0
N-Nitrosodimethylamine	Ave	1.693	1.729		10.2	10.0	2.1	20.0
Pyridine	Ave	2.930	2.862		9.77	10.0	-2.3	20.0
Benzaldehyde	Ave	2.328	2.227	0.0100	19.1	20.0	-4.3	20.0
Phenol	Ave	2.775	2.607	0.8000	9.39	10.0	-6.1	20.0
Aniline	Ave	3.583	3.422		9.55	10.0	-4.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.385	0.7000	9.52	10.0	-4.8	20.0
2-Chlorophenol	Ave	1.523	1.485	0.8000	9.75	10.0	-2.5	20.0
n-Decane	Ave	1.999	1.961		9.81	10.0	-1.9	20.0
1,3-Dichlorobenzene	Ave	1.630	1.558		9.56	10.0	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.666	1.595		9.58	10.0	-4.2	20.0
Benzyl alcohol	Ave	1.232	1.135		9.21	10.0	-7.9	20.0
1,2-Dichlorobenzene	Ave	1.580	1.485		9.40	10.0	-6.0	20.0
2-Methylphenol	Ave	1.706	1.607	0.7000	9.42	10.0	-5.8	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.769		9.38	10.0	-6.2	20.0
Indene	Ave	3.185	2.978		18.7	20.0	-6.5	20.0
3 & 4 Methylphenol	Ave	1.799	1.694		9.42	10.0	-5.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.878	0.5000	9.49	10.0	-5.1	20.0
Acetophenone	Ave	2.817	2.715	0.0100	9.64	10.0	-3.6	20.0
Hexachloroethane	Ave	0.8166	0.7780	0.3000	9.53	10.0	-4.7	20.0
Nitrobenzene	Ave	0.7749	0.7991	0.2000	10.3	10.0	3.1	20.0
Isophorone	Ave	1.226	1.213	0.4000	9.90	10.0	-1.0	20.0
2-Nitrophenol	Ave	0.1796	0.1924	0.1000	10.7	10.0	7.2	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4925	0.2000	10.1	10.0	0.7	20.0
Benzoic acid	Lin1		0.1998		17.8	20.0	-10.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6919	0.3000	10.2	10.0	2.3	20.0
2,4-Dichlorophenol	Ave	0.3062	0.3068	0.2000	10.0	10.0	0.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3396		10.4	10.0	4.4	20.0
Naphthalene	Ave	1.144	1.104	0.7000	9.65	10.0	-3.5	20.0
4-Chloroaniline	Ave	0.4932	0.4897	0.0100	9.93	10.0	-0.7	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2990		10.1	10.0	0.8	20.0
Hexachlorobutadiene	Ave	0.2017	0.2028	0.0100	10.1	10.0	0.5	20.0
Caprolactam	Ave	0.1384	0.1399	0.0100	20.2	20.0	1.0	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4141	0.2000	9.90	10.0	-1.0	20.0
2-Methylnaphthalene	Ave	0.7006	0.6969	0.4000	9.95	10.0	-0.5	20.0
1-Methylnaphthalene	Ave	0.6168	0.5974		9.69	10.0	-3.1	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3792	0.0500	11.4	10.0	14.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5720	0.0100	10.1	10.0	0.5	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3955	0.2000	10.6	10.0	5.6	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4156	0.2000	10.5	10.0	5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.453	0.0100	9.80	10.0	-2.0	20.0
2-Chloronaphthalene	Ave	1.171	1.160	0.8000	9.91	10.0	-0.9	20.0
2-Nitroaniline	Ave	0.6109	0.6385	0.0100	10.5	10.0	4.5	20.0
Dimethyl phthalate	Ave	1.267	1.324	0.0100	10.5	10.0	4.5	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2202		11.2	10.0	11.7	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.3006		10.7	10.0	7.2	20.0
Acenaphthylene	Ave	1.869	1.856	0.9000	9.93	10.0	-0.7	20.0
3-Nitroaniline	Ave	0.3056	0.3058	0.0100	10.0	10.0	0.0	20.0
2,4-Dinitrophenol	Lin1		0.1688	0.0100	23.1	20.0	15.3	20.0
Acenaphthene	Ave	1.201	1.161	0.9000	9.67	10.0	-3.3	20.0
4-Nitrophenol	Ave	0.2548	0.2897		22.7	20.0	13.7	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3952	0.2000	10.6	10.0	5.7	20.0
Dibenzofuran	Ave	1.648	1.632	0.8000	9.90	10.0	-1.0	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3253	0.0100	10.3	10.0	3.4	20.0
Diethyl phthalate	Ave	1.245	1.230	0.0100	9.88	10.0	-1.2	20.0
Hexadecane	Ave	1.016	1.031		10.1	10.0	1.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.6234	0.4000	10.2	10.0	1.6	20.0
4-Nitroaniline	Ave	0.2967	0.3250	0.0100	11.0	10.0	9.5	20.0
Fluorene	Ave	1.379	1.336	0.9000	9.69	10.0	-3.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1514	0.0100	24.5	20.0	22.5*	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.6029	0.0100	21.2	20.0	6.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.790		11.3	10.0	13.4	20.0
Azobenzene	Ave	1.580	1.790		11.3	10.0	13.3	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2457	0.1000	11.5	10.0	15.0	20.0
Hexachlorobenzene	Ave	0.2114	0.2278	0.1000	10.8	10.0	7.8	20.0
Atrazine	Ave	0.2132	0.2375	0.0100	22.3	20.0	11.4	20.0
n-Octadecane	Ave	0.6421	0.7013		10.9	10.0	9.2	20.0
Pentachlorophenol	Ave	0.1444	0.1555	0.0500	21.5	20.0	7.7	20.0
Phenanthrene	Ave	1.268	1.225	0.7000	9.66	10.0	-3.4	20.0
Anthracene	Ave	1.261	1.236	0.7000	9.80	10.0	-2.0	20.0
Carbazole	Ave	1.050	1.150	0.0100	11.0	10.0	9.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.465	0.0100	11.7	10.0	17.2	20.0
Fluoranthene	Ave	1.280	1.418	0.6000	11.1	10.0	10.7	20.0
Benzidine	Lin1		0.6947		22.5	20.0	12.3	20.0
Pyrene	Ave	1.153	1.196	0.6000	10.4	10.0	3.7	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5540	0.0100	10.3	10.0	3.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7681	0.0100	10.5	10.0	5.0	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3621	0.0100	20.1	20.0	0.7	20.0
Benzo[a]anthracene	Ave	1.234	1.201	0.8000	9.73	10.0	-2.7	20.0
Chrysene	Ave	1.158	1.113	0.7000	9.61	10.0	-3.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.450	0.0100	10.2	10.0	2.1	20.0
Benzo[b]fluoranthene	Ave	1.185	1.167	0.7000	9.85	10.0	-1.5	20.0
Benzo[k]fluoranthene	Ave	1.198	1.257	0.7000	10.5	10.0	4.9	20.0
Benzo[a]pyrene	Ave	1.128	1.143	0.7000	10.1	10.0	1.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.215	0.5000	10.4	10.0	3.6	20.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9809	0.4000	10.7	10.0	6.7	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.017	0.5000	10.4	10.0	4.4	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.716		9.81	10.0	-1.9	20.0
Phenol-d5 (Surr)	Ave	2.475	2.398		9.69	10.0	-3.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7861		10.1	10.0	1.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1414		10.9	10.0	8.7	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7760		10.5	10.0	5.4	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50812005.D Lab Sample ID: MB 240-192506/23-A

Matrix: Solid Date Extracted: 08/10/2015 08:05

Instrument ID: A4HP9 Date Analyzed: 08/12/2015 08:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-192506/24-A	50812006.D	08/12/2015 09:24
D-VS-B-1-1	240-54086-1	50812007.D	08/12/2015 09:50
D-VS-B-2-1	240-54086-2	50812008.D	08/12/2015 10:15
D-VS-B-3-1	240-54086-3	50812009.D	08/12/2015 10:41
D-VS-B-4-1	240-54086-4	50812010.D	08/12/2015 11:06
D-VB-B-1-2	240-54086-5	50812011.D	08/12/2015 11:32
D-VB-B-2-2	240-54086-6	50812012.D	08/12/2015 11:57
D-VB-B-3-2	240-54086-7	50812013.D	08/12/2015 12:23
D-DUP01-080615	240-54086-8	50812014.D	08/12/2015 12:48
D-VS-A-2-1	240-54086-9	50812015.D	08/12/2015 13:14
D-VB-A-2-2	240-54086-10	50812016.D	08/12/2015 13:39

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-192506/23-A

Matrix: Solid | Lab File ID: 50812005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30(g) | Date Analyzed: 08/12/2015 08:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	67		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50812006.D

Lab ID: LCS 240-192506/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	466	70	38-110	
Acenaphthylene	667	456	68	40-110	
Anthracene	667	469	70	48-110	
Benzo[a]anthracene	667	504	76	50-110	
Benzo[a]pyrene	667	530	79	44-110	
Benzo[b]fluoranthene	667	545	82	43-110	
Benzo[g,h,i]perylene	667	545	82	51-110	
Benzo[k]fluoranthene	667	573	86	38-105	
Chrysene	667	540	81	50-110	
Dibenz(a,h)anthracene	667	532	80	51-110	
Fluoranthene	667	538	81	51-110	
Fluorene	667	460	69	46-110	
Indeno[1,2,3-cd]pyrene	667	517	78	50-110	
Naphthalene	667	478	72	36-110	
Phenanthrene	667	473	71	49-110	
Pyrene	667	538	81	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-B-1-1	240-54086-1	61	63	56	60	50	70
D-VS-B-2-1	240-54086-2	66	69	59	63	56	75
D-VS-B-3-1	240-54086-3	71	73	65	67	65	76
D-VS-B-4-1	240-54086-4	65	65	58	60	55	73
D-VB-B-1-2	240-54086-5	59	59	54	57	59	69
D-VB-B-2-2	240-54086-6	61	62	53	61	67	72
D-VB-B-3-2	240-54086-7	66	66	59	65	71	75
D-DUP01-080615	240-54086-8	60	59	55	59	57	72
D-VS-A-2-1	240-54086-9	67	69	60	64	41	76
D-VB-A-2-2	240-54086-10	63	63	55	58	48	69
	MB 240-192506/23-A	54	59	52	59	38	67
	LCS 240-192506/24-A	73	74	73	68	59	85

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-192864/2 CCVIS		121233	6.33	448073	7.45	251049	8.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-192864/2 CCVIS		372057	10.22	460856	12.50	399334	14.23

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: CCV 240-192864/2 Date Analyzed: 08/12/2015 07:43

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50812002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		121233	6.33	448073	7.45	251049	8.95
UPPER LIMIT		242466	6.83	896146	7.95	502098	9.45
LOWER LIMIT		60617	5.83	224037	6.95	125525	8.45
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-192864/3		128488	6.33	485018	7.45	270251	8.95
MB 240-192506/23-A		99989	6.33	404507	7.45	225948	8.95
LCS 240-192506/24-A		93935	6.33	367642	7.45	220989	8.95
240-54086-1	D-VS-B-1-1	102855	6.33	386751	7.45	227405	8.95
240-54086-2	D-VS-B-2-1	102822	6.33	395390	7.45	234479	8.95
240-54086-3	D-VS-B-3-1	101745	6.33	403968	7.45	234749	8.95
240-54086-4	D-VS-B-4-1	113623	6.33	445543	7.45	257957	8.95
240-54086-5	D-VB-B-1-2	115872	6.33	433752	7.45	255504	8.95
240-54086-6	D-VB-B-2-2	112276	6.33	436043	7.45	242975	8.95
240-54086-7	D-VB-B-3-2	113519	6.33	442628	7.45	250633	8.95
240-54086-8	D-DUP01-080615	117425	6.33	433933	7.45	254729	8.95
240-54086-9	D-VS-A-2-1	115958	6.33	455803	7.45	263419	8.95
240-54086-10	D-VB-A-2-2	114748	6.33	454698	7.45	269019	8.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: CCV 240-192864/2 Date Analyzed: 08/12/2015 07:43

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50812002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		372057	10.22	460856	12.50	399334	14.23
UPPER LIMIT		744114	10.72	921712	13.00	798668	14.73
LOWER LIMIT		186029	9.72	230428	12.00	199667	13.73
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-192864/3		453654	10.22	514869	12.49	398658	14.23
MB 240-192506/23-A		374924	10.22	409041	12.50	320472	14.24
LCS 240-192506/24-A		347000	10.22	401424	12.50	323065	14.23
240-54086-1	D-VS-B-1-1	385349	10.22	427792	12.49	360978	14.23
240-54086-2	D-VS-B-2-1	388792	10.22	426850	12.50	379402	14.23
240-54086-3	D-VS-B-3-1	402424	10.22	446722	12.49	381540	14.23
240-54086-4	D-VS-B-4-1	418969	10.22	482447	12.50	439640	14.23
240-54086-5	D-VB-B-1-2	414181	10.22	466308	12.49	419233	14.23
240-54086-6	D-VB-B-2-2	416665	10.22	466223	12.50	428284	14.23
240-54086-7	D-VB-B-3-2	420333	10.22	483778	12.50	457480	14.23
240-54086-8	D-DUP01-080615	432391	10.22	473943	12.50	455861	14.23
240-54086-9	D-VS-A-2-1	434205	10.22	480251	12.50	455248	14.23
240-54086-10	D-VB-A-2-2	434035	10.22	475267	12.50	430633	14.23

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 21, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54270-1

SAMPLES: 18 / Soil / PAHs

D-DUP02-081215	D-DUP03-081215	D-VB-A-1-2
D-VB-A-3-2	D-VB-C-1-2	D-VB-C-2-2
D-VB-C-3-2	D-VB-C-4-2	D-VB-E-3-2
D-VB-E-6-2	D-VS-A-1-1	D-VS-A-3-1
D-VS-A-4-1	D-VS-C-1-1	D-VS-C-2-1
D-VS-C-3-1	D-VS-C-4-1	D-VS-E-2-1

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54270-1, consists of eighteen (18) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). Two (2) field duplicate pairs are included in this SDG: D-VS-C-4-1 (original) / D-DUP02-081215 (duplicate), and D-VB-E-3-2 (original) / D-DUP03-081215 (duplicate).

The samples were collected by Tetra Tech on August 12, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- In the field duplicate pair samples D-VS-C-4-1 / D-DUP02-081215, the relative percent difference (RPD) was greater than the quality control limit of 50% for acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, naphthalene, and pyrene. Additionally, the difference exceeded 2x the reporting limit (RL) for indeno(1,2,3-cd)pyrene. Detected results for these analytes were qualified as estimated (J) in the field duplicate pair samples D-VS-C-4-1 and D-DUP02-081215.

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

Sample D-VS-A-3-1 was analyzed at a dilution factor of 2.

The surrogate 2,4,6-tribromophenol percent recoveries (%Rs) were less than the laboratory quality control range for D-VS-E-2-1 and D-VB-E-6-2. No action was necessary, as none of the target analytes are associated with the acid surrogate 2,4,6-tribromophenol.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Some detected results were qualified for field duplicate imprecision. Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP02-081215			D-DUP03-081215			D-VB-A-1-2			D-VB-A-3-2		
SDG: 240-54270-1	LAB_ID	240-54270-14			240-54270-18			240-54270-4			240-54270-5		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	89.6			83.6			87.2			87.9		
	DUP_OF	D-VS-C-4-1			D-VB-E-3-2								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		15	J	G	0.92	U		35			18		
ACENAPHTHYLENE		0.39	U		0.42	U		5.1	J	P	65		
ANTHRACENE		16			0.94	U		45			31		
BENZO(A)ANTHRACENE		22	J	G	8.2			140			80		
BENZO(A)PYRENE		23	J	G	6	J	P	150			100		
BENZO(B)FLUORANTHENE		30	J	G	13			220			110		
BENZO(G,H,I)PERYLENE		17	J	G	0.42	U		110			100		
BENZO(K)FLUORANTHENE		15	J	G	0.82	U		77			49		
CHRYSENE		29	J	G	11			180			99		
DIBENZO(A,H)ANTHRACENE		0.73	U		0.8	U		29			20		
FLUORANTHENE		60	J	G	16			260			120		
FLUORENE		12			0.64	U		48			24		
INDENO(1,2,3-CD)PYRENE		13	J	G	0.42	U		93			68		
NAPHTHALENE		18	J	G	0.99	U		56			14		
PHENANTHRENE		52			8	J	P	120			75		
PYRENE		48	J	G	14			270			180		

PROJ_NO: 07483	NSAMPLE	D-VB-C-1-2			D-VB-C-2-2			D-VB-C-3-2			D-VB-C-4-2		
SDG: 240-54270-1	LAB_ID	240-54270-10			240-54270-11			240-54270-12			240-54270-13		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			84.6			81.1			82.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.9	U		0.91	U		28			0.93	U	
ACENAPHTHYLENE		0.42	U		0.42	U		0.44	U		0.43	U	
ANTHRACENE		0.93	U		0.93	U		0.97	U		0.95	U	
BENZO(A)ANTHRACENE		11			0.75	U		4.2	J	P	0.77	U	
BENZO(A)PYRENE		8.7			0.76	U		4.5	J	P	0.78	U	
BENZO(B)FLUORANTHENE		13			0.7	U		6.7	J	P	0.72	U	
BENZO(G,H,I)PERYLENE		0.42	U		0.42	U		0.44	U		0.43	U	
BENZO(K)FLUORANTHENE		0.81	U		0.81	U		0.85	U		0.83	U	
CHRYSENE		11			1.3	U		4.5	J	P	1.3	U	
DIBENZO(A,H)ANTHRACENE		0.78	U		0.79	U		0.82	U		0.81	U	
FLUORANTHENE		24			0.66	U		10			0.67	U	
FLUORENE		0.63	U		0.63	U		7.2	J	P	0.65	U	
INDENO(1,2,3-CD)PYRENE		0.42	U		0.42	U		0.44	U		0.43	U	
NAPHTHALENE		0.97	U		0.98	U		19			1	U	
PHENANTHRENE		12			0.87	U		11			0.89	U	
PYRENE		19			0.53	U		8.1	J	P	0.54	U	

PROJ_NO: 07483	NSAMPLE	D-VB-E-3-2			D-VB-E-6-2			D-VS-A-1-1			D-VS-A-3-1		
SDG: 240-54270-1	LAB_ID	240-54270-16			240-54270-17			240-54270-1			240-54270-2		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.1			86.2			87.8			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.91	U		9.5			5.5	J	P	380		
ACENAPHTHYLENE		0.42	U		0.41	U		5.4	J	P	14	J	P
ANTHRACENE		0.93	U		19			6.9	J	P	580		
BENZO(A)ANTHRACENE		6.5	J	P	76			22			1100		
BENZO(A)PYRENE		0.76	U		80			22			1000		
BENZO(B)FLUORANTHENE		0.7	U		110			31			1300		
BENZO(G,H,I)PERYLENE		0.42	U		63			17			710		
BENZO(K)FLUORANTHENE		0.81	U		48			16			560		
CHRYSENE		4.9	J	P	91			26			1100		
DIBENZO(A,H)ANTHRACENE		0.79	U		14			0.75	U		180		
FLUORANTHENE		10			150			40			2200		
FLUORENE		0.63	U		8.2			6.3	J	P	390		
INDENO(1,2,3-CD)PYRENE		0.42	U		55			15			600		
NAPHTHALENE		0.98	U		7.6	J	P	42			120		
PHENANTHRENE		6.2	J	P	77			20			1800		
PYRENE		8.5			130			40			1700		

PROJ_NO: 07483	NSAMPLE	D-VS-A-4-1			D-VS-C-1-1			D-VS-C-2-1			D-VS-C-3-1		
SDG: 240-54270-1	LAB_ID	240-54270-3			240-54270-6			240-54270-7			240-54270-8		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.8			81.9			87.2			82.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		80			60			51			130		
ACENAPHTHYLENE		16			0.43	U		9.2			0.43	U	
ANTHRACENE		220			99			150			74		
BENZO(A)ANTHRACENE		580			190			140			82		
BENZO(A)PYRENE		510			170			100			76		
BENZO(B)FLUORANTHENE		620			200			140			100		
BENZO(G,H,I)PERYLENE		320			110			71			50		
BENZO(K)FLUORANTHENE		300			110			68			40		
CHRYSENE		570			190			140			87		
DIBENZO(A,H)ANTHRACENE		92			25			23			13		
FLUORANTHENE		1100			440			500			230		
FLUORENE		98			51			78			98		
INDENO(1,2,3-CD)PYRENE		280			86			66			49		
NAPHTHALENE		84			72			52			69		
PHENANTHRENE		600			320			510			330		
PYRENE		880			360			410			180		

PROJ_NO: 07483	NSAMPLE	D-VS-C-4-1			D-VS-E-2-1		
SDG: 240-54270-1	LAB_ID	240-54270-9			240-54270-15		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	89.6			89.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		33	J	G	16		
ACENAPHTHYLENE		0.39	U		9.2		
ANTHRACENE		23			44		
BENZO(A)ANTHRACENE		57	J	G	270		
BENZO(A)PYRENE		55	J	G	310		
BENZO(B)FLUORANTHENE		70	J	G	510		
BENZO(G,H,I)PERYLENE		35	J	G	240		
BENZO(K)FLUORANTHENE		29	J	G	230		
CHRYSENE		61	J	G	520		
DIBENZO(A,H)ANTHRACENE		0.74	U		57		
FLUORANTHENE		110	J	G	620		
FLUORENE		21			12		
INDENO(1,2,3-CD)PYRENE		33	J	G	200		
NAPHTHALENE		40	J	G	4.3	J	P
PHENANTHRENE		79			150		
PYRENE		99	J	G	540		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-DUP02-081215 | Lab Sample ID: 240-54270-14

Matrix: Solid | Lab File ID: 50818013.D

Analysis Method: 8270D | Date Collected: 08/12/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.33(g) | Date Analyzed: 08/18/2015 12:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.4	0.84
208-96-8	Acenaphthylene	0.39	U	7.4	0.39
120-12-7	Anthracene	16		7.4	0.86
56-55-3	Benzo[a]anthracene	22		7.4	0.70
50-32-8	Benzo[a]pyrene	23		7.4	0.71
205-99-2	Benzo[b]fluoranthene	30		7.4	0.65
191-24-2	Benzo[g,h,i]perylene	17		7.4	0.39
207-08-9	Benzo[k]fluoranthene	15		7.4	0.75
218-01-9	Chrysene	29		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	0.73	U	7.4	0.73
206-44-0	Fluoranthene	60		7.4	0.61
86-73-7	Fluorene	12		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.4	0.39
91-20-3	Naphthalene	18		7.4	0.91
85-01-8	Phenanthrene	52		7.4	0.81
129-00-0	Pyrene	48		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	53		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-DUP03-081215 | Lab Sample ID: 240-54270-18

Matrix: Solid | Lab File ID: 50818011.D

Analysis Method: 8270D | Date Collected: 08/12/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.64(g) | Date Analyzed: 08/18/2015 11:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.1	0.92
208-96-8	Acenaphthylene	0.42	U	8.1	0.42
120-12-7	Anthracene	0.94	U	8.1	0.94
56-55-3	Benzo[a]anthracene	8.2		8.1	0.76
50-32-8	Benzo[a]pyrene	6.0	J	8.1	0.77
205-99-2	Benzo[b]fluoranthene	13		8.1	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.1	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.1	0.82
218-01-9	Chrysene	11		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	16		8.1	0.67
86-73-7	Fluorene	0.64	U	8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.1	0.42
91-20-3	Naphthalene	0.99	U	8.1	0.99
85-01-8	Phenanthrene	8.0	J	8.1	0.88
129-00-0	Pyrene	14		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	55		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-A-1-2 | Lab Sample ID: 240-54270-4

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.09(g) | Date Analyzed: 08/18/2015 13:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	35		7.6	0.87
208-96-8	Acenaphthylene	5.1	J	7.6	0.40
120-12-7	Anthracene	45		7.6	0.89
56-55-3	Benzo[a]anthracene	140		7.6	0.72
50-32-8	Benzo[a]pyrene	150		7.6	0.73
205-99-2	Benzo[b]fluoranthene	220		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	110		7.6	0.40
207-08-9	Benzo[k]fluoranthene	77		7.6	0.78
218-01-9	Chrysene	180		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	29		7.6	0.75
206-44-0	Fluoranthene	260		7.6	0.63
86-73-7	Fluorene	48		7.6	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	93		7.6	0.40
91-20-3	Naphthalene	56		7.6	0.94
85-01-8	Phenanthrene	120		7.6	0.83
129-00-0	Pyrene	270		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-A-3-2 | Lab Sample ID: 240-54270-5

Matrix: Solid | Lab File ID: 50818022.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:20

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.07(g) | Date Analyzed: 08/18/2015 16:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	18		7.6	0.86
208-96-8	Acenaphthylene	65		7.6	0.40
120-12-7	Anthracene	31		7.6	0.89
56-55-3	Benzo[a]anthracene	80		7.6	0.71
50-32-8	Benzo[a]pyrene	100		7.6	0.73
205-99-2	Benzo[b]fluoranthene	110		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	100		7.6	0.40
207-08-9	Benzo[k]fluoranthene	49		7.6	0.77
218-01-9	Chrysene	99		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	20		7.6	0.75
206-44-0	Fluoranthene	120		7.6	0.62
86-73-7	Fluorene	24		7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	68		7.6	0.40
91-20-3	Naphthalene	14		7.6	0.93
85-01-8	Phenanthrene	75		7.6	0.83
129-00-0	Pyrene	180		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	52		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-1-2 | Lab Sample ID: 240-54270-10

Matrix: Solid | Lab File ID: 50818012.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:50

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.98(g) | Date Analyzed: 08/18/2015 11:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	11		7.9	0.75
50-32-8	Benzo[a]pyrene	8.7		7.9	0.76
205-99-2	Benzo[b]fluoranthene	13		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	11		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	24		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	12		7.9	0.87
129-00-0	Pyrene	19		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-2-2 | Lab Sample ID: 240-54270-11

Matrix: Solid | Lab File ID: 50818008.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:55

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.70(g) | Date Analyzed: 08/18/2015 10:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.93	U	8.0	0.93
56-55-3	Benzo[a]anthracene	0.75	U	8.0	0.75
50-32-8	Benzo[a]pyrene	0.76	U	8.0	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	8.0	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	8.0	0.81
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.63	U	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.98	U	8.0	0.98
85-01-8	Phenanthrene	0.87	U	8.0	0.87
129-00-0	Pyrene	0.53	U	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-3-2 | Lab Sample ID: 240-54270-12

Matrix: Solid | Lab File ID: 50818005.D

Analysis Method: 8270D | Date Collected: 08/12/2015 13:00

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:25

Sample wt/vol: 29.74(g) | Date Analyzed: 08/18/2015 14:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	28		8.3	0.95
208-96-8	Acenaphthylene	0.44	U	8.3	0.44
120-12-7	Anthracene	0.97	U	8.3	0.97
56-55-3	Benzo[a]anthracene	4.2	J	8.3	0.78
50-32-8	Benzo[a]pyrene	4.5	J	8.3	0.80
205-99-2	Benzo[b]fluoranthene	6.7	J	8.3	0.73
191-24-2	Benzo[g,h,i]perylene	0.44	U	8.3	0.44
207-08-9	Benzo[k]fluoranthene	0.85	U	8.3	0.85
218-01-9	Chrysene	4.5	J	8.3	1.4
53-70-3	Dibenz(a,h)anthracene	0.82	U	8.3	0.82
206-44-0	Fluoranthene	10		8.3	0.68
86-73-7	Fluorene	7.2	J	8.3	0.66
193-39-5	Indeno[1,2,3-cd]pyrene	0.44	U	8.3	0.44
91-20-3	Naphthalene	19		8.3	1.0
85-01-8	Phenanthrene	11		8.3	0.91
129-00-0	Pyrene	8.1	J	8.3	0.55

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	66		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	48		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	35		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-4-2 | Lab Sample ID: 240-54270-13

Matrix: Solid | Lab File ID: 50818009.D

Analysis Method: 8270D | Date Collected: 08/12/2015 13:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.63(g) | Date Analyzed: 08/18/2015 10:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.95	U	8.2	0.95
56-55-3	Benzo[a]anthracene	0.77	U	8.2	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.2	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.2	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.2	0.83
218-01-9	Chrysene	1.3	U	8.2	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.2	0.81
206-44-0	Fluoranthene	0.67	U	8.2	0.67
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	0.89	U	8.2	0.89
129-00-0	Pyrene	0.54	U	8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	65		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	51		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	39		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-E-3-2 | Lab Sample ID: 240-54270-16

Matrix: Solid | Lab File ID: 50818010.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.60(g) | Date Analyzed: 08/18/2015 11:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	7.9	0.91
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	6.5	J	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	4.9	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	10		7.9	0.66
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	6.2	J	7.9	0.87
129-00-0	Pyrene	8.5		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	14		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-E-6-2 | Lab Sample ID: 240-54270-17

Matrix: Solid | Lab File ID: 50818024.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:10

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.79(g) | Date Analyzed: 08/18/2015 16:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.5		7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	19		7.8	0.91
56-55-3	Benzo[a]anthracene	76		7.8	0.74
50-32-8	Benzo[a]pyrene	80		7.8	0.75
205-99-2	Benzo[b]fluoranthene	110		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	63		7.8	0.41
207-08-9	Benzo[k]fluoranthene	48		7.8	0.79
218-01-9	Chrysene	91		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	14		7.8	0.77
206-44-0	Fluoranthene	150		7.8	0.64
86-73-7	Fluorene	8.2		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	55		7.8	0.41
91-20-3	Naphthalene	7.6	J	7.8	0.96
85-01-8	Phenanthrene	77		7.8	0.85
129-00-0	Pyrene	130		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-1-1 | Lab Sample ID: 240-54270-1

Matrix: Solid | Lab File ID: 50818016.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.18(g) | Date Analyzed: 08/18/2015 13:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.5	J	7.6	0.86
208-96-8	Acenaphthylene	5.4	J	7.6	0.40
120-12-7	Anthracene	6.9	J	7.6	0.88
56-55-3	Benzo[a]anthracene	22		7.6	0.71
50-32-8	Benzo[a]pyrene	22		7.6	0.72
205-99-2	Benzo[b]fluoranthene	31		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	17		7.6	0.40
207-08-9	Benzo[k]fluoranthene	16		7.6	0.77
218-01-9	Chrysene	26		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	40		7.6	0.62
86-73-7	Fluorene	6.3	J	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	15		7.6	0.40
91-20-3	Naphthalene	42		7.6	0.93
85-01-8	Phenanthrene	20		7.6	0.83
129-00-0	Pyrene	40		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-3-1 | Lab Sample ID: 240-54270-2

Matrix: Solid | Lab File ID: 50818020.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.16(g) | Date Analyzed: 08/18/2015 15:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	380		15	1.7
208-96-8	Acenaphthylene	14	J	15	0.77
120-12-7	Anthracene	580		15	1.7
56-55-3	Benzo[a]anthracene	1100		15	1.4
50-32-8	Benzo[a]pyrene	1000		15	1.4
205-99-2	Benzo[b]fluoranthene	1300		15	1.3
191-24-2	Benzo[g,h,i]perylene	710		15	0.77
207-08-9	Benzo[k]fluoranthene	560		15	1.5
218-01-9	Chrysene	1100		15	2.4
53-70-3	Dibenz(a,h)anthracene	180		15	1.5
206-44-0	Fluoranthene	2200		15	1.2
86-73-7	Fluorene	390		15	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	600		15	0.77
91-20-3	Naphthalene	120		15	1.8
85-01-8	Phenanthrene	1800		15	1.6
129-00-0	Pyrene	1700		15	0.97

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	68		36-110
4165-62-2	Phenol-d5 (Surr)	39		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		20-110
367-12-4	2-Fluorophenol (Surr)	43		24-110
321-60-8	2-Fluorobiphenyl (Surr)	52		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-4-1 | Lab Sample ID: 240-54270-3

Matrix: Solid | Lab File ID: 50818021.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:10

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.11(g) | Date Analyzed: 08/18/2015 15:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	80		7.3	0.83
208-96-8	Acenaphthylene	16		7.3	0.38
120-12-7	Anthracene	220		7.3	0.86
56-55-3	Benzo[a]anthracene	580		7.3	0.69
50-32-8	Benzo[a]pyrene	510		7.3	0.70
205-99-2	Benzo[b]fluoranthene	620		7.3	0.65
191-24-2	Benzo[g,h,i]perylene	320		7.3	0.38
207-08-9	Benzo[k]fluoranthene	300		7.3	0.75
218-01-9	Chrysene	570		7.3	1.2
53-70-3	Dibenz(a,h)anthracene	92		7.3	0.72
206-44-0	Fluoranthene	1100		7.3	0.60
86-73-7	Fluorene	98		7.3	0.58
193-39-5	Indeno[1,2,3-cd]pyrene	280		7.3	0.38
91-20-3	Naphthalene	84		7.3	0.90
85-01-8	Phenanthrene	600		7.3	0.80
129-00-0	Pyrene	880		7.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	46		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-1-1 | Lab Sample ID: 240-54270-6

Matrix: Solid | Lab File ID: 50818014.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:30

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.13(g) | Date Analyzed: 08/18/2015 12:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	60		8.1	0.92
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	99		8.1	0.95
56-55-3	Benzo[a]anthracene	190		8.1	0.77
50-32-8	Benzo[a]pyrene	170		8.1	0.78
205-99-2	Benzo[b]fluoranthene	200		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	110		8.1	0.43
207-08-9	Benzo[k]fluoranthene	110		8.1	0.83
218-01-9	Chrysene	190		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	25		8.1	0.80
206-44-0	Fluoranthene	440		8.1	0.67
86-73-7	Fluorene	51		8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	86		8.1	0.43
91-20-3	Naphthalene	72		8.1	1.0
85-01-8	Phenanthrene	320		8.1	0.89
129-00-0	Pyrene	360		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-2-1 | Lab Sample ID: 240-54270-7

Matrix: Solid | Lab File ID: 50818023.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:35

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.80(g) | Date Analyzed: 08/18/2015 16:28

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	51		7.7	0.88
208-96-8	Acenaphthylene	9.2		7.7	0.40
120-12-7	Anthracene	150		7.7	0.90
56-55-3	Benzo[a]anthracene	140		7.7	0.73
50-32-8	Benzo[a]pyrene	100		7.7	0.74
205-99-2	Benzo[b]fluoranthene	140		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	71		7.7	0.40
207-08-9	Benzo[k]fluoranthene	68		7.7	0.78
218-01-9	Chrysene	140		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	23		7.7	0.76
206-44-0	Fluoranthene	500		7.7	0.63
86-73-7	Fluorene	78		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	66		7.7	0.40
91-20-3	Naphthalene	52		7.7	0.95
85-01-8	Phenanthrene	510		7.7	0.84
129-00-0	Pyrene	410		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-3-1 | Lab Sample ID: 240-54270-8

Matrix: Solid | Lab File ID: 50818018.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:40

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.77(g) | Date Analyzed: 08/18/2015 14:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	130		8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	74		8.2	0.96
56-55-3	Benzo[a]anthracene	82		8.2	0.77
50-32-8	Benzo[a]pyrene	76		8.2	0.78
205-99-2	Benzo[b]fluoranthene	100		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	50		8.2	0.43
207-08-9	Benzo[k]fluoranthene	40		8.2	0.83
218-01-9	Chrysene	87		8.2	1.3
53-70-3	Dibenz(a,h)anthracene	13		8.2	0.81
206-44-0	Fluoranthene	230		8.2	0.67
86-73-7	Fluorene	98		8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	49		8.2	0.43
91-20-3	Naphthalene	69		8.2	1.0
85-01-8	Phenanthrene	330		8.2	0.89
129-00-0	Pyrene	180		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	56		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	30		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-4-1 | Lab Sample ID: 240-54270-9

Matrix: Solid | Lab File ID: 50818015.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:45

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.97(g) | Date Analyzed: 08/18/2015 13:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	33		7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	23		7.5	0.87
56-55-3	Benzo[a]anthracene	57		7.5	0.70
50-32-8	Benzo[a]pyrene	55		7.5	0.72
205-99-2	Benzo[b]fluoranthene	70		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	35		7.5	0.39
207-08-9	Benzo[k]fluoranthene	29		7.5	0.76
218-01-9	Chrysene	61		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	110		7.5	0.61
86-73-7	Fluorene	21		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	33		7.5	0.39
91-20-3	Naphthalene	40		7.5	0.92
85-01-8	Phenanthrene	79		7.5	0.82
129-00-0	Pyrene	99		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	54		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-E-2-1 | Lab Sample ID: 240-54270-15

Matrix: Solid | Lab File ID: 50818019.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.96(g) | Date Analyzed: 08/18/2015 14:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	16		7.5	0.85
208-96-8	Acenaphthylene	9.2		7.5	0.39
120-12-7	Anthracene	44		7.5	0.87
56-55-3	Benzo[a]anthracene	270		7.5	0.70
50-32-8	Benzo[a]pyrene	310		7.5	0.72
205-99-2	Benzo[b]fluoranthene	510		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	240		7.5	0.39
207-08-9	Benzo[k]fluoranthene	230		7.5	0.76
218-01-9	Chrysene	520		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	57		7.5	0.74
206-44-0	Fluoranthene	620		7.5	0.61
86-73-7	Fluorene	12		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	200		7.5	0.39
91-20-3	Naphthalene	4.3	J	7.5	0.92
85-01-8	Phenanthrene	150		7.5	0.82
129-00-0	Pyrene	540		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	52		36-110
4165-62-2	Phenol-d5 (Surr)	41		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	39		24-110
321-60-8	2-Fluorobiphenyl (Surr)	46		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	2	X	10-110

APPENDIX C

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

26 | C3.6

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS — TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1000	X		O-VS-A-1-1	1	X						* SAMPLES GO TO
		1005	X		O-VS-A-3-1		X						TESTAMERICA NORTH CANTON
		1010	X		O-VS-A-4-1		X						* 3 DAY TAT *
		1015		X	O-VB-A-1-2		X						* SCOTT NESBIT IS P/M.
		1020		X	O-VB-A-3-2		X						
		1230	X		~~O-VS-A-3~~ O-VS-C-1-1 (JAM)		X						
		1235	X		O-VS-C-2-1		X						
		1240	X		O-VS-C-3-1		X						
		1245	X		O-VS-C-4-1		X						
		1250		X	O-VB-C-1-2		X						
		1255		X	O-VB-C-2-2		X						
		1300		X	O-VB-C-3-2		X						
		1305		X	O-VB-C-4-2		X						
		—	X		O-DUP02-081215		X						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710			8/12/15 1900	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	
			8/13/15 930		

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Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS — TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1500	X		D-VS-E-2-1	1	X						* ALL SAMPLES GO TO
"	"	1505	X	X	D-VB-E-3-2	"	X						TESTAMERICA NORTH CANTON
"	"	1510	X	X	D-VB-E-6-2	"	X						* 3 DAY TAT
"	"	—	X	X	D-QUB03-081215	"	X						* SCOTT NESBIT IS P.M.

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710			8/12/15 1900	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	
			8/13/15 1130		

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 54270**
Canton Facility

Client Test Tech Site Name

Cooler Received on 8/13/15 Opened on 8/13/15

Cooler unpacked by: Alex Cl.

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # ~~Foam Box~~ ~~Client Cooler~~ Box Other

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 3.6 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54270-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/13/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-A-1-1 (240-54270-1), D-VS-A-3-1 (240-54270-2), D-VS-A-4-1 (240-54270-3), D-VB-A-1-2 (240-54270-4), D-VB-A-3-2 (240-54270-5), D-VS-C-1-1 (240-54270-6), D-VS-C-2-1 (240-54270-7), D-VS-C-3-1 (240-54270-8), D-VS-C-4-1 (240-54270-9), D-VB-C-1-2 (240-54270-10), D-VB-C-2-2 (240-54270-11), D-VB-C-3-2 (240-54270-12), D-VB-C-4-2 (240-54270-13), D-DUP02-081215 (240-54270-14), D-VS-E-2-1 (240-54270-15), D-VB-E-3-2 (240-54270-16), D-VB-E-6-2 (240-54270-17) and D-DUP03-081215 (240-54270-18) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/14/2015 and 08/15/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VS-E-2-1 (240-54270-15). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-E-6-2 (240-54270-17).

Sample D-VS-A-3-1 (240-54270-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Sample 240-54270-B-15-A has one acid surrogate recovery below acceptance criteria. The target analyte list for this sample is BN only, therefore, no corrective action was required.

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693. However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-A-1-1 (240-54270-1), D-VS-A-3-1 (240-54270-2), D-VS-A-4-1 (240-54270-3), D-VB-A-1-2 (240-54270-4), D-VB-A-3-2 (240-54270-5), D-VS-C-1-1 (240-54270-6), D-VS-C-2-1 (240-54270-7), D-VS-C-3-1 (240-54270-8), D-VS-C-4-1 (240-54270-9), D-VB-C-1-2 (240-54270-10), D-VB-C-2-2 (240-54270-11), D-VB-C-3-2 (240-54270-12), D-VB-C-4-2 (240-54270-13), D-DUP02-081215 (240-54270-14), D-VS-E-2-1 (240-54270-15), D-VB-E-3-2 (240-54270-16), D-VB-E-6-2 (240-54270-17) and D-DUP03-081215 (240-54270-18) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54270-1	D-VS-A-1-1	Solid	08/12/2015 1000	08/13/2015 0930
240-54270-2	D-VS-A-3-1	Solid	08/12/2015 1005	08/13/2015 0930
240-54270-3	D-VS-A-4-1	Solid	08/12/2015 1010	08/13/2015 0930
240-54270-4	D-VB-A-1-2	Solid	08/12/2015 1015	08/13/2015 0930
240-54270-5	D-VB-A-3-2	Solid	08/12/2015 1020	08/13/2015 0930
240-54270-6	D-VS-C-1-1	Solid	08/12/2015 1230	08/13/2015 0930
240-54270-7	D-VS-C-2-1	Solid	08/12/2015 1235	08/13/2015 0930
240-54270-8	D-VS-C-3-1	Solid	08/12/2015 1240	08/13/2015 0930
240-54270-9	D-VS-C-4-1	Solid	08/12/2015 1245	08/13/2015 0930
240-54270-10	D-VB-C-1-2	Solid	08/12/2015 1250	08/13/2015 0930
240-54270-11	D-VB-C-2-2	Solid	08/12/2015 1255	08/13/2015 0930
240-54270-12	D-VB-C-3-2	Solid	08/12/2015 1300	08/13/2015 0930
240-54270-13	D-VB-C-4-2	Solid	08/12/2015 1305	08/13/2015 0930
240-54270-14	D-DUP02-081215	Solid	08/12/2015 0000	08/13/2015 0930
240-54270-15	D-VS-E-2-1	Solid	08/12/2015 1500	08/13/2015 0930
240-54270-16	D-VB-E-3-2	Solid	08/12/2015 1505	08/13/2015 0930
240-54270-17	D-VB-E-6-2	Solid	08/12/2015 1510	08/13/2015 0930
240-54270-18	D-DUP03-081215	Solid	08/12/2015 0000	08/13/2015 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

FIELD DUPLICATE PRECISION

ANALYTE	D-VS-C-4-1	QUAL	D-DUP02-081215	QUAL	RPD	DIFFERENCE	RL
ACENAPHTHENE	33		15		75.00	18.00	7.5
ACENAPHTHYLENE	0.39	U	0.39	U	0.00	0.00	7.5
ANTHRACENE	23		16		35.90	7.00	7.5
BENZO(A)ANTHRACENE	57		22		88.61	35.00	7.5
BENZO(A)PYRENE	55		23		82.05	32.00	7.5
BENZO(B)FLUORANTHENE	70		30		80.00	40.00	7.5
BENZO(G,H,I)PERYLENE	35		17		69.23	18.00	7.5
BENZO(K)FLUORANTHENE	29		15		63.64	14.00	7.5
CHRYSENE	61		29		71.11	32.00	7.5
DIBENZO(A,H)ANTHRACENE	0.74	U	0.73	U	1.36	0.01	7.5
FLUORANTHENE	110		60		58.82	50.00	7.5
FLUORENE	21		12		54.55	9.00	7.5
INDENO(1,2,3-CD)PYRENE	33		13		86.96	20.00	7.5
NAPHTHALENE	40		18		75.86	22.00	7.5
PHENANTHRENE	79		52		41.22	27.00	7.5
PYRENE	99		48		69.39	51.00	7.5

FIELD DUPLICATE PRECISION

ANALYTE	D-VB-E-3-2	QUAL	D-DUP03-081215	QUAL	RPD	DIFFERENCE	RL
ACENAPHTHENE	0.91	U	0.92	U	1.09	0.01	8.1
ACENAPHTHYLENE	0.42	U	0.42	U	0.00	0.00	8.1
ANTHRACENE	0.93	U	0.94	U	1.07	0.01	8.1
BENZO(A)ANTHRACENE	6.5	J	8.2		23.13	1.70	8.1
BENZO(A)PYRENE	0.76	U	6	J	155.03	5.24	8.1
BENZO(B)FLUORANTHENE	0.7	U	13		179.56	12.30	8.1
BENZO(G,H,I)PERYLENE	0.42	U	0.42	U	0.00	0.00	8.1
BENZO(K)FLUORANTHENE	0.81	U	0.82	U	1.23	0.01	8.1
CHRYSENE	4.9	J	11		76.73	6.10	8.1
DIBENZO(A,H)ANTHRACENE	0.79	U	0.8	U	1.26	0.01	8.1
FLUORANTHENE	10		16		46.15	6.00	8.1
FLUORENE	0.63	U	0.64	U	1.57	0.01	8.1
INDENO(1,2,3-CD)PYRENE	0.42	U	0.42	U	0.00	0.00	8.1
NAPHTHALENE	0.98	U	0.99	U	1.02	0.01	8.1
PHENANTHRENE	6.2	J	8	J	25.35	1.80	8.1
PYRENE	8.5		14		48.89	5.50	8.1

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	LCS 240-193424/11-A	50818004.D	08/18/2015	13:46
D-VB-C-3-2	240-54270-12	50818005.D	08/18/2015	14:10
	MB 240-193424/10-A	50818017.D	08/18/2015	14:34

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818017.D Lab Sample ID: MB 240-193424/10-A

Matrix: Solid Date Extracted: 08/15/2015 10:20

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 14:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193424/11-A	50818004.D	08/18/2015 13:46
D-VB-C-3-2	240-54270-12	50818005.D	08/18/2015 14:10

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193424/10-A

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 14:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	42		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193424/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	412	62	38-110	
Acenaphthylene	667	420	63	40-110	
Anthracene	667	439	66	48-110	
Benzo[a]anthracene	667	432	65	50-110	
Benzo[a]pyrene	667	458	69	44-110	
Benzo[b]fluoranthene	667	446	67	43-110	
Benzo[g,h,i]perylene	667	491	74	51-110	
Benzo[k]fluoranthene	667	437	66	38-105	
Chrysene	667	466	70	50-110	
Dibenz(a,h)anthracene	667	517	78	51-110	
Fluoranthene	667	444	67	51-110	
Fluorene	667	401	60	46-110	
Indeno[1,2,3-cd]pyrene	667	526	79	50-110	
Naphthalene	667	421	63	36-110	
Phenanthrene	667	430	65	49-110	
Pyrene	667	428	64	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:26

Analysis Batch No.: 193684

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	75.5	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	57.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	24.7	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	67.5	
443	15.0 - 24.0% of mass 442	13.5	(20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193684/2	50818002.D	08/18/2015	07:47
	MB 240-193298/23-A	50818003.D	08/18/2015	08:12
	LCS 240-193298/24-A	50818004.D	08/18/2015	08:37
D-VB-C-2-2	240-54270-11	50818008.D	08/18/2015	10:15
D-VB-C-4-2	240-54270-13	50818009.D	08/18/2015	10:40
D-VB-E-3-2	240-54270-16	50818010.D	08/18/2015	11:05
D-DUP03-081215	240-54270-18	50818011.D	08/18/2015	11:29
D-VB-C-1-2	240-54270-10	50818012.D	08/18/2015	11:54
D-DUP02-081215	240-54270-14	50818013.D	08/18/2015	12:19
D-VS-C-1-1	240-54270-6	50818014.D	08/18/2015	12:44
D-VS-C-4-1	240-54270-9	50818015.D	08/18/2015	13:09
D-VS-A-1-1	240-54270-1	50818016.D	08/18/2015	13:34
D-VB-A-1-2	240-54270-4	50818017.D	08/18/2015	13:59
D-VS-C-3-1	240-54270-8	50818018.D	08/18/2015	14:24
D-VS-E-2-1	240-54270-15	50818019.D	08/18/2015	14:49
D-VS-A-3-1	240-54270-2	50818020.D	08/18/2015	15:13
D-VS-A-4-1	240-54270-3	50818021.D	08/18/2015	15:38
D-VB-A-3-2	240-54270-5	50818022.D	08/18/2015	16:03
D-VS-C-2-1	240-54270-7	50818023.D	08/18/2015	16:28
D-VB-E-6-2	240-54270-17	50818024.D	08/18/2015	16:53

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID (1): CCV 240-193684/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/18/2015 07:47

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.99	100.0
Phenol-d5 (Surr)	5.87	100.0
Nitrobenzene-d5 (Surr)	6.69	100.0
Naphthalene	7.35	100.0
2-Fluorobiphenyl (Surr)	8.23	100.0
Acenaphthylene	8.71	100.0
Acenaphthene	8.86	100.0
Fluorene	9.29	100.0
2,4,6-Tribromophenol (Surr)	9.50	100.0
Phenanthrene	10.11	100.0
Anthracene	10.15	100.0
Fluoranthene	11.12	100.0
Pyrene	11.32	100.0
Terphenyl-d14 (Surr)	11.40	100.0
Benzo[a]anthracene	12.33	100.0
Chrysene	12.37	100.0
Benzo[b]fluoranthene	13.47	37.20
Benzo[k]fluoranthene	13.50	100.0
Benzo[a]pyrene	13.90	100.0
Indeno[1,2,3-cd]pyrene	15.74	100.0
Dibenz(a,h)anthracene	15.75	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9339		9.47	10.0	-5.3	20.0
N-Nitrosodimethylamine	Ave	1.693	1.585		9.36	10.0	-6.4	20.0
Pyridine	Ave	2.930	2.610		8.91	10.0	-10.9	20.0
Benzaldehyde	Ave	2.328	2.222	0.0100	19.1	20.0	-4.6	20.0
Phenol	Ave	2.775	2.882	0.8000	10.4	10.0	3.8	20.0
Aniline	Ave	3.583	3.335		9.31	10.0	-6.9	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.404	0.7000	9.59	10.0	-4.1	20.0
2-Chlorophenol	Ave	1.523	1.500	0.8000	9.85	10.0	-1.5	20.0
n-Decane	Ave	1.999	1.941		9.71	10.0	-2.9	20.0
1,3-Dichlorobenzene	Ave	1.630	1.586		9.73	10.0	-2.7	20.0
1,4-Dichlorobenzene	Ave	1.666	1.604		9.63	10.0	-3.7	20.0
Benzyl alcohol	Ave	1.232	1.168		9.47	10.0	-5.3	20.0
1,2-Dichlorobenzene	Ave	1.580	1.536		9.72	10.0	-2.8	20.0
2-Methylphenol	Ave	1.706	1.619	0.7000	9.49	10.0	-5.1	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.740		9.23	10.0	-7.7	20.0
Indene	Ave	3.185	3.066		19.2	20.0	-3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.903	0.5000	9.61	10.0	-3.9	20.0
Acetophenone	Ave	2.817	2.697	0.0100	9.58	10.0	-4.2	20.0
3 & 4 Methylphenol	Ave	1.799	1.651		9.18	10.0	-8.2	20.0
Hexachloroethane	Ave	0.8166	0.8145	0.3000	9.97	10.0	-0.3	20.0
Nitrobenzene	Ave	0.7749	0.7808	0.2000	10.1	10.0	0.8	20.0
Isophorone	Ave	1.226	1.220	0.4000	9.95	10.0	-0.5	20.0
2-Nitrophenol	Ave	0.1796	0.1874	0.1000	10.4	10.0	4.4	20.0
2,4-Dimethylphenol	Ave	0.4892	0.5082	0.2000	10.4	10.0	3.9	20.0
Benzoic acid	Lin1		0.1809		16.2	20.0	-19.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6729	0.3000	9.95	10.0	-0.5	20.0
2,4-Dichlorophenol	Ave	0.3062	0.3022	0.2000	9.87	10.0	-1.3	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3303		10.2	10.0	1.5	20.0
Naphthalene	Ave	1.144	1.085	0.7000	9.49	10.0	-5.1	20.0
4-Chloroaniline	Ave	0.4932	0.4696	0.0100	9.52	10.0	-4.8	20.0
2,6-Dichlorophenol	Ave	0.2967	0.3018		10.2	10.0	1.7	20.0
Hexachlorobutadiene	Ave	0.2017	0.2134	0.0100	10.6	10.0	5.8	20.0
Caprolactam	Ave	0.1384	0.1457	0.0100	21.0	20.0	5.2	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4159	0.2000	9.94	10.0	-0.6	20.0
2-Methylnaphthalene	Ave	0.7006	0.6800	0.4000	9.71	10.0	-2.9	20.0
1-Methylnaphthalene	Ave	0.6168	0.5926		9.61	10.0	-3.9	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.2649	0.0500	7.99	10.0	-20.1*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5795	0.0100	10.2	10.0	1.8	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3863	0.2000	10.3	10.0	3.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3777	0.2000	9.57	10.0	-4.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.408	0.0100	9.49	10.0	-5.1	20.0
2-Chloronaphthalene	Ave	1.171	1.138	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.6109	0.6203	0.0100	10.2	10.0	1.5	20.0
Dimethyl phthalate	Ave	1.267	1.291	0.0100	10.2	10.0	1.9	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2097		10.6	10.0	6.3	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.3066		10.9	10.0	9.3	20.0
Acenaphthylene	Ave	1.869	1.813	0.9000	9.70	10.0	-3.0	20.0
3-Nitroaniline	Ave	0.3056	0.3130	0.0100	10.2	10.0	2.4	20.0
2,4-Dinitrophenol	Lin1		0.1441	0.0100	19.8	20.0	-0.9	20.0
Acenaphthene	Ave	1.201	1.159	0.9000	9.66	10.0	-3.4	20.0
4-Nitrophenol	Ave	0.2548	0.3002		23.6	20.0	17.8	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.4191	0.2000	11.2	10.0	12.0	20.0
Dibenzofuran	Ave	1.648	1.587	0.8000	9.63	10.0	-3.7	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3346	0.0100	10.6	10.0	6.3	20.0
Diethyl phthalate	Ave	1.245	1.301	0.0100	10.5	10.0	4.5	20.0
Hexadecane	Ave	1.016	0.9757		9.60	10.0	-4.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.6163	0.4000	10.0	10.0	0.4	20.0
4-Nitroaniline	Ave	0.2967	0.3358	0.0100	11.3	10.0	13.1	20.0
Fluorene	Ave	1.379	1.301	0.9000	9.44	10.0	-5.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1336	0.0100	21.7	20.0	8.5	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5478	0.0100	19.3	20.0	-3.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.509		9.55	10.0	-4.5	20.0
Azobenzene	Ave	1.580	1.508		9.55	10.0	-4.5	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2110	0.1000	9.88	10.0	-1.2	20.0
Hexachlorobenzene	Ave	0.2114	0.2167	0.1000	10.2	10.0	2.5	20.0
Atrazine	Ave	0.2132	0.2261	0.0100	21.2	20.0	6.0	20.0
n-Octadecane	Ave	0.6421	0.5913		9.21	10.0	-7.9	20.0
Pentachlorophenol	Ave	0.1444	0.1373	0.0500	19.0	20.0	-4.9	20.0
Phenanthrene	Ave	1.268	1.153	0.7000	9.09	10.0	-9.1	20.0
Anthracene	Ave	1.261	1.184	0.7000	9.39	10.0	-6.1	20.0
Carbazole	Ave	1.050	1.066	0.0100	10.2	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.350	0.0100	10.8	10.0	8.0	20.0
Fluoranthene	Ave	1.280	1.283	0.6000	10.0	10.0	0.2	20.0
Benzidine	Lin1		0.6581		21.3	20.0	6.6	20.0
Pyrene	Ave	1.153	1.201	0.6000	10.4	10.0	4.2	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5758	0.0100	10.7	10.0	7.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7786	0.0100	10.6	10.0	6.5	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.4032	0.0100	22.4	20.0	12.2	20.0
Benzo[a]anthracene	Ave	1.234	1.212	0.8000	9.82	10.0	-1.8	20.0
Chrysene	Ave	1.158	1.137	0.7000	9.82	10.0	-1.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.478	0.0100	10.4	10.0	4.2	20.0
Benzo[b]fluoranthene	Ave	1.185	1.133	0.7000	9.56	10.0	-4.4	20.0
Benzo[k]fluoranthene	Ave	1.198	1.304	0.7000	10.9	10.0	8.8	20.0
Benzo[a]pyrene	Ave	1.128	1.142	0.7000	10.1	10.0	1.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.279	0.5000	10.9	10.0	9.1	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.017	0.4000	11.1	10.0	10.6	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.091	0.5000	11.2	10.0	12.0	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.704		9.74	10.0	-2.6	20.0
Phenol-d5 (Surr)	Ave	2.475	2.374		9.59	10.0	-4.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7746		10.0	10.0	-0.0	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.241		9.50	10.0	-5.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1482		11.4	10.0	13.9	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7498		10.2	10.0	1.8	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818003.D Lab Sample ID: MB 240-193298/23-A

Matrix: Solid Date Extracted: 08/14/2015 09:27

Instrument ID: A4HP9 Date Analyzed: 08/18/2015 08:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193298/24-A	50818004.D	08/18/2015 08:37
D-VB-C-2-2	240-54270-11	50818008.D	08/18/2015 10:15
D-VB-C-4-2	240-54270-13	50818009.D	08/18/2015 10:40
D-VB-E-3-2	240-54270-16	50818010.D	08/18/2015 11:05
D-DUP03-081215	240-54270-18	50818011.D	08/18/2015 11:29
D-VB-C-1-2	240-54270-10	50818012.D	08/18/2015 11:54
D-DUP02-081215	240-54270-14	50818013.D	08/18/2015 12:19
D-VS-C-1-1	240-54270-6	50818014.D	08/18/2015 12:44
D-VS-C-4-1	240-54270-9	50818015.D	08/18/2015 13:09
D-VS-A-1-1	240-54270-1	50818016.D	08/18/2015 13:34
D-VB-A-1-2	240-54270-4	50818017.D	08/18/2015 13:59
D-VS-C-3-1	240-54270-8	50818018.D	08/18/2015 14:24
D-VS-E-2-1	240-54270-15	50818019.D	08/18/2015 14:49
D-VS-A-3-1	240-54270-2	50818020.D	08/18/2015 15:13
D-VS-A-4-1	240-54270-3	50818021.D	08/18/2015 15:38
D-VB-A-3-2	240-54270-5	50818022.D	08/18/2015 16:03
D-VS-C-2-1	240-54270-7	50818023.D	08/18/2015 16:28
D-VB-E-6-2	240-54270-17	50818024.D	08/18/2015 16:53

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193298/23-A

Matrix: Solid | Lab File ID: 50818003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 08:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	71		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193298/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	430	65	38-110	
Acenaphthylene	667	424	64	40-110	
Anthracene	667	465	70	48-110	
Benzo[a]anthracene	667	481	72	50-110	
Benzo[a]pyrene	667	510	77	44-110	
Benzo[b]fluoranthene	667	502	75	43-110	
Benzo[g,h,i]perylene	667	560	84	51-110	
Benzo[k]fluoranthene	667	529	79	38-105	
Chrysene	667	506	76	50-110	
Dibenz(a,h)anthracene	667	544	82	51-110	
Fluoranthene	667	500	75	51-110	
Fluorene	667	444	67	46-110	
Indeno[1,2,3-cd]pyrene	667	552	83	50-110	
Naphthalene	667	434	65	36-110	
Phenanthrene	667	459	69	49-110	
Pyrene	667	512	77	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-A-1-1	240-54270-1	61	50	60	64	44	79
D-VS-A-3-1	240-54270-2	43	39	44	52	40	68
D-VS-A-4-1	240-54270-3	58	46	53	63	38	78
D-VB-A-1-2	240-54270-4	63	61	62	71	36	84
D-VB-A-3-2	240-54270-5	54	52	53	59	22	72
D-VS-C-1-1	240-54270-6	63	59	61	64	37	81
D-VS-C-2-1	240-54270-7	58	50	59	62	44	77
D-VS-C-3-1	240-54270-8	59	56	56	59	30	73
D-VS-C-4-1	240-54270-9	55	54	55	60	38	75
D-VB-C-1-2	240-54270-10	57	58	56	60	45	76
D-VB-C-2-2	240-54270-11	57	59	56	63	44	75
D-VB-C-3-2	240-54270-12	60	62	48	53	35	66
D-VB-C-4-2	240-54270-13	57	51	51	57	39	65
D-DUP02-081215	240-54270-14	60	60	59	63	53	78
D-VS-E-2-1	240-54270-15	39	41	41	46	2 X	52
D-VB-E-3-2	240-54270-16	57	53	56	60	14	73
D-VB-E-6-2	240-54270-17	67	61	63	71	8 X	81
D-DUP03-081215	240-54270-18	55	55	56	60	15	73
	MB 240-193298/23-A	67	71	62	67	33	85
	MB 240-193424/10-A	45	50	42	47	11	50
	LCS 240-193298/24-A	63	65	65	63	57	83
	LCS 240-193424/11-A	67	69	60	63	22	67

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		218581	6.11	923296	7.23	508825	8.73
240-54270-12	D-VB-C-3-2	224727	6.11	993936	7.23	553253	8.73
MB 240-193424/10-A		261862	6.11	1132843	7.23	617978	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		825964	9.99	868728	12.62	738287	14.77
240-54270-12	D-VB-C-3-2	926757	9.99	912790	12.62	708401	14.77
MB 240-193424/10-A		1058567	9.99	1066056	12.62	885805	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-193684/2 CCVIS		111426	6.21	425313	7.33	245132	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-193684/2 CCVIS		414265	10.09	461133	12.34	417895	13.98

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193684/2 Date Analyzed: 08/18/2015 07:47

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		111426	6.21	425313	7.33	245132	8.83
UPPER LIMIT		222852	6.71	850626	7.83	490264	9.33
LOWER LIMIT		55713	5.71	212657	6.83	122566	8.33
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193298/23-A		92500	6.21	371860	7.32	216710	8.83
LCS 240-193298/24-A		89327	6.21	337078	7.33	201703	8.83
240-54270-11	D-VB-C-2-2	99793	6.21	374450	7.33	215812	8.83
240-54270-13	D-VB-C-4-2	99520	6.20	383489	7.33	221766	8.83
240-54270-16	D-VB-E-3-2	94801	6.21	357789	7.33	209107	8.83
240-54270-18	D-DUP03-081215	97897	6.21	375665	7.33	221179	8.83
240-54270-10	D-VB-C-1-2	97389	6.21	372220	7.33	219883	8.82
240-54270-14	D-DUP02-081215	96052	6.21	365842	7.32	220758	8.82
240-54270-6	D-VS-C-1-1	90356	6.21	356533	7.33	215202	8.83
240-54270-9	D-VS-C-4-1	100585	6.21	369552	7.32	216311	8.83
240-54270-1	D-VS-A-1-1	99894	6.21	388172	7.33	231772	8.83
240-54270-4	D-VB-A-1-2	102452	6.21	381679	7.32	222285	8.83
240-54270-8	D-VS-C-3-1	99909	6.21	388154	7.33	235175	8.83
240-54270-15	D-VS-E-2-1	103329	6.21	396519	7.32	229144	8.82
240-54270-2	D-VS-A-3-1	98662	6.21	372964	7.32	226013	8.82
240-54270-3	D-VS-A-4-1	101717	6.21	406771	7.32	240750	8.82
240-54270-5	D-VB-A-3-2	104419	6.21	392833	7.33	238950	8.82
240-54270-7	D-VS-C-2-1	106070	6.21	399171	7.33	238503	8.83
240-54270-17	D-VB-E-6-2	100010	6.21	380548	7.32	225138	8.82

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193684/2 Date Analyzed: 08/18/2015 07:47

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		414265	10.09	461133	12.34	417895	13.98
UPPER LIMIT		828530	10.59	922266	12.84	835790	14.48
LOWER LIMIT		207133	9.59	230567	11.84	208948	13.48
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193298/23-A		365062	10.09	407753	12.34	350703	13.97
LCS 240-193298/24-A		339978	10.09	380871	12.34	340006	13.97
240-54270-11	D-VB-C-2-2	366487	10.09	405946	12.34	316906	13.97
240-54270-13	D-VB-C-4-2	377049	10.09	422317	12.34	360010	13.98
240-54270-16	D-VB-E-3-2	364096	10.09	403667	12.34	342965	13.97
240-54270-18	D-DUP03-081215	354017	10.09	409409	12.34	351109	13.97
240-54270-10	D-VB-C-1-2	366722	10.09	415106	12.34	376095	13.97
240-54270-14	D-DUP02-081215	367278	10.09	414900	12.34	376883	13.97
240-54270-6	D-VS-C-1-1	359890	10.09	400744	12.34	378577	13.98
240-54270-9	D-VS-C-4-1	370752	10.08	425658	12.34	400831	13.98
240-54270-1	D-VS-A-1-1	395406	10.09	448176	12.34	414651	13.98
240-54270-4	D-VB-A-1-2	381267	10.08	424666	12.34	414448	13.98
240-54270-8	D-VS-C-3-1	385458	10.09	446645	12.34	415541	13.98
240-54270-15	D-VS-E-2-1	394756	10.08	453735	12.34	443513	13.97
240-54270-2	D-VS-A-3-1	378067	10.09	432853	12.34	419252	13.98
240-54270-3	D-VS-A-4-1	406793	10.08	463627	12.34	448876	13.98
240-54270-5	D-VB-A-3-2	397173	10.09	460972	12.34	438856	13.98
240-54270-7	D-VS-C-2-1	394538	10.09	446989	12.34	436704	13.98
240-54270-17	D-VB-E-6-2	386730	10.09	444368	12.34	429218	13.97

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 20, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54331-1

SAMPLES: 7 / Soil / PAHs

D-VB-E-1-2	D-VB-E-2-2	D-VB-E-4-2
D-VB-E-5-2	D-VS-E-1-1	D-VS-E-3-1
D-VS-E-4-1		

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54331-1, consists of seven (7) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). No field duplicate pair is included in this SDG.

The samples were collected by Tetra Tech on August 13, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

The following samples were analyzed at dilution factors greater than 1:

Sample	Dilution Factor
D-VB-E-4-2	2
D-VS-E-1-1	2.5
D-VS-E-3-1	4.5

The surrogate 2,4,6-tribromophenol had a percent recovery (%R) that was less than the laboratory quality control range for D-VB-E-4-2. No action was necessary, as none of the target analytes are associated with the acid surrogate 2,4,6-tribromophenol.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-VB-E-1-2			D-VB-E-2-2			D-VB-E-4-2			D-VB-E-5-2		
SDG: 240-54331-1	LAB_ID	240-54331-4			240-54331-5			240-54331-6			240-54331-7		
FRACTION: PAH	SAMP_DATE	8/13/2015			8/13/2015			8/13/2015			8/13/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.6			85.5			85.1			84.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		5.8	J	P	0.89	U		120			0.9	U	
ACENAPHTHYLENE		0.41	U		0.41	U		12	J	P	0.42	U	
ANTHRACENE		7.5	J	P	0.92	U		240			0.93	U	
BENZO(A)ANTHRACENE		21			5.1	J	P	880			0.75	U	
BENZO(A)PYRENE		19			5.4	J	P	890			0.76	U	
BENZO(B)FLUORANTHENE		25			8			1200			0.7	U	
BENZO(G,H,I)PERYLENE		12			4.9	J	P	560			0.42	U	
BENZO(K)FLUORANTHENE		11			0.8	U		440			0.81	U	
CHRYSENE		21			6.9	J	P	950			1.3	U	
DIBENZO(A,H)ANTHRACENE		0.78	U		0.78	U		190			0.79	U	
FLUORANTHENE		41			8.6			1600			0.65	U	
FLUORENE		0.63	U		0.62	U		95			0.63	U	
INDENO(1,2,3-CD)PYRENE		11			5.3	J	P	500			0.42	U	
NAPHTHALENE		0.97	U		0.96	U		15	J	P	0.98	U	
PHENANTHRENE		29			6	J	P	920			0.87	U	
PYRENE		35			7.6	J	P	1400			0.52	U	

PROJ_NO: 07483	NSAMPLE	D-VS-E-1-1			D-VS-E-3-1			D-VS-E-4-1		
SDG: 240-54331-1	LAB_ID	240-54331-1			240-54331-2			240-54331-3		
FRACTION: PAH	SAMP_DATE	8/13/2015			8/13/2015			8/13/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.2			88.3			88.4		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		140			130			7.2	J	P
ACENAPHTHYLENE		27			41			9.9		
ANTHRACENE		300			360			22		
BENZO(A)ANTHRACENE		880			1700			140		
BENZO(A)PYRENE		900			2000			180		
BENZO(B)FLUORANTHENE		1300			2400			230		
BENZO(G,H,I)PERYLENE		550			1100			150		
BENZO(K)FLUORANTHENE		420			1000			99		
CHRYSENE		1000			1900			160		
DIBENZO(A,H)ANTHRACENE		190			400			37		
FLUORANTHENE		1800			3000			200		
FLUORENE		130			96			6.7	J	P
INDENO(1,2,3-CD)PYRENE		510			1000			130		
NAPHTHALENE		66			15	J	P	7.7		
PHENANTHRENE		1100			1200			100		
PYRENE		1600			2700			210		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-1-2 | Lab Sample ID: 240-54331-4

Matrix: Solid | Lab File ID: 50818009.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:15

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 17:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.8	J	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	7.5	J	7.9	0.92
56-55-3	Benzo[a]anthracene	21		7.9	0.74
50-32-8	Benzo[a]pyrene	19		7.9	0.76
205-99-2	Benzo[b]fluoranthene	25		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	12		7.9	0.41
207-08-9	Benzo[k]fluoranthene	11		7.9	0.80
218-01-9	Chrysene	21		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	41		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	11		7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	29		7.9	0.86
129-00-0	Pyrene	35		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	46		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	46		24-110
321-60-8	2-Fluorobiphenyl (Surr)	43		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	12		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-2-2 | Lab Sample ID: 240-54331-5

Matrix: Solid | Lab File ID: 50818010.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:20

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.83(g) | Date Analyzed: 08/18/2015 17:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.92	U	7.8	0.92
56-55-3	Benzo[a]anthracene	5.1	J	7.8	0.74
50-32-8	Benzo[a]pyrene	5.4	J	7.8	0.75
205-99-2	Benzo[b]fluoranthene	8.0		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	4.9	J	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.80	U	7.8	0.80
218-01-9	Chrysene	6.9	J	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.8	0.78
206-44-0	Fluoranthene	8.6		7.8	0.65
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	5.3	J	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	6.0	J	7.8	0.86
129-00-0	Pyrene	7.6	J	7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	45		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	36		20-110
367-12-4	2-Fluorophenol (Surr)	41		24-110
321-60-8	2-Fluorobiphenyl (Surr)	44		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-4-2 | Lab Sample ID: 240-54331-6

Matrix: Solid | Lab File ID: 50818012.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:25

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.57(g) | Date Analyzed: 08/18/2015 18:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	120		16	1.8
208-96-8	Acenaphthylene	12	J	16	0.83
120-12-7	Anthracene	240		16	1.9
56-55-3	Benzo[a]anthracene	880		16	1.5
50-32-8	Benzo[a]pyrene	890		16	1.5
205-99-2	Benzo[b]fluoranthene	1200		16	1.4
191-24-2	Benzo[g,h,i]perylene	560		16	0.83
207-08-9	Benzo[k]fluoranthene	440		16	1.6
218-01-9	Chrysene	950		16	2.6
53-70-3	Dibenz(a,h)anthracene	190		16	1.6
206-44-0	Fluoranthene	1600		16	1.3
86-73-7	Fluorene	95		16	1.3
193-39-5	Indeno[1,2,3-cd]pyrene	500		16	0.83
91-20-3	Naphthalene	15	J	16	2.0
85-01-8	Phenanthrene	920		16	1.7
129-00-0	Pyrene	1400		16	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	54		36-110
4165-62-2	Phenol-d5 (Surr)	49		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	38		20-110
367-12-4	2-Fluorophenol (Surr)	44		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	7	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-5-2 | Lab Sample ID: 240-54331-7

Matrix: Solid | Lab File ID: 50818006.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.73(g) | Date Analyzed: 08/18/2015 14:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	0.65	U	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	0.52	U	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	54		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		20-110
367-12-4	2-Fluorophenol (Surr)	52		24-110
321-60-8	2-Fluorobiphenyl (Surr)	49		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-1-1 | Lab Sample ID: 240-54331-1

Matrix: Solid | Lab File ID: 50818013.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:00

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.02(g) | Date Analyzed: 08/18/2015 18:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	140		19	2.2
208-96-8	Acenaphthylene	27		19	1.0
120-12-7	Anthracene	300		19	2.2
56-55-3	Benzo[a]anthracene	880		19	1.8
50-32-8	Benzo[a]pyrene	900		19	1.8
205-99-2	Benzo[b]fluoranthene	1300		19	1.7
191-24-2	Benzo[g,h,i]perylene	550		19	1.0
207-08-9	Benzo[k]fluoranthene	420		19	1.9
218-01-9	Chrysene	1000		19	3.2
53-70-3	Dibenz(a,h)anthracene	190		19	1.9
206-44-0	Fluoranthene	1800		19	1.6
86-73-7	Fluorene	130		19	1.5
193-39-5	Indeno[1,2,3-cd]pyrene	510		19	1.0
91-20-3	Naphthalene	66		19	2.3
85-01-8	Phenanthrene	1100		19	2.1
129-00-0	Pyrene	1600		19	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		36-110
4165-62-2	Phenol-d5 (Surr)	55		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		20-110
367-12-4	2-Fluorophenol (Surr)	53		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	10		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-3-1 | Lab Sample ID: 240-54331-2

Matrix: Solid | Lab File ID: 50818014.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:05

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.17(g) | Date Analyzed: 08/18/2015 19:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	130		30	3.4
208-96-8	Acenaphthylene	41		30	1.6
120-12-7	Anthracene	360		30	3.5
56-55-3	Benzo[a]anthracene	1700		30	2.8
50-32-8	Benzo[a]pyrene	2000		30	2.9
205-99-2	Benzo[b]fluoranthene	2400		30	2.7
191-24-2	Benzo[g,h,i]perylene	1100		30	1.6
207-08-9	Benzo[k]fluoranthene	1000		30	3.1
218-01-9	Chrysene	1900		30	5.0
53-70-3	Dibenz(a,h)anthracene	400		30	3.0
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	96		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	1000		30	1.6
91-20-3	Naphthalene	15	J	30	3.7
85-01-8	Phenanthrene	1200		30	3.3
129-00-0	Pyrene	2700		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	60		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	47		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	20		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-4-1 | Lab Sample ID: 240-54331-3

Matrix: Solid | Lab File ID: 50818011.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:10

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.66(g) | Date Analyzed: 08/18/2015 17:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.2	J	7.6	0.87
208-96-8	Acenaphthylene	9.9		7.6	0.40
120-12-7	Anthracene	22		7.6	0.89
56-55-3	Benzo[a]anthracene	140		7.6	0.72
50-32-8	Benzo[a]pyrene	180		7.6	0.73
205-99-2	Benzo[b]fluoranthene	230		7.6	0.68
191-24-2	Benzo[g,h,i]perylene	150		7.6	0.40
207-08-9	Benzo[k]fluoranthene	99		7.6	0.78
218-01-9	Chrysene	160		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	37		7.6	0.76
206-44-0	Fluoranthene	200		7.6	0.63
86-73-7	Fluorene	6.7	J	7.6	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	130		7.6	0.40
91-20-3	Naphthalene	7.7		7.6	0.94
85-01-8	Phenanthrene	100		7.6	0.84
129-00-0	Pyrene	210		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	45		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	10		10-110

APPENDIX C

SUPPORT DOCUMENTATION

0.8/C1.8

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
117IC07483	MRC SOIL REMEDY Block D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAH (8270D)	REMARKS
MRC	8/13	0900	X		D-VS-E-1-1	1	X	☆ ALL SAMPLES GO TO
		0905	X		D-VS-E-3-1		X	TESTAMERICA. NORTH CANTON ☆
		0910	X		D-VS-E-4-1		X	☆ 3 DAY TAT ☆
		0915		X	D-VB-E-1-2		X	☆ P.M: SCOTT NESBIT ☆
		0920		X	D-VB-E-2-2		X	
		0925		X	D-VB-E-4-2		X	
		0930		X	D-VB-E-5-2		X	

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15 1630				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15 1700	8-14-15 920			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA E	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 41337**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 8-14-15 Opened on 8-14-15

FedEx: 1st Grd ~~ESP~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +**1.0** °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF **-1.5** °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54331-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/14/2015 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6) and D-VB-E-5-2 (240-54331-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/15/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-E-4-2 (240-54331-6).

Samples D-VS-E-1-1 (240-54331-1)[2.5X], D-VS-E-3-1 (240-54331-2)[4X] and D-VB-E-4-2 (240-54331-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693 associated with samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6), D-VB-E-5-2 (240-54331-7), (240-54331-B-7-B MS) and (240-54331-B-7-C MSD). However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6) and D-VB-E-5-2 (240-54331-7) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54331-1	D-VS-E-1-1	Solid	08/13/2015 0900	08/14/2015 0920
240-54331-2	D-VS-E-3-1	Solid	08/13/2015 0905	08/14/2015 0920
240-54331-3	D-VS-E-4-1	Solid	08/13/2015 0910	08/14/2015 0920
240-54331-4	D-VB-E-1-2	Solid	08/13/2015 0915	08/14/2015 0920
240-54331-5	D-VB-E-2-2	Solid	08/13/2015 0920	08/14/2015 0920
240-54331-6	D-VB-E-4-2	Solid	08/13/2015 0925	08/14/2015 0920
240-54331-7	D-VB-E-5-2	Solid	08/13/2015 0930	08/14/2015 0920

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	LCS 240-193424/11-A	50818004.D	08/18/2015	13:46
	MB 240-193424/10-A	50818017.D	08/18/2015	14:34
D-VB-E-5-2	240-54331-7	50818006.D	08/18/2015	14:59
D-VB-E-5-2 MS	240-54331-7 MS	50818007.D	08/18/2015	15:23
D-VB-E-5-2 MSD	240-54331-7 MSD	50818008.D	08/18/2015	15:47
D-VB-E-1-2	240-54331-4	50818009.D	08/18/2015	17:00
D-VB-E-2-2	240-54331-5	50818010.D	08/18/2015	17:24
D-VS-E-4-1	240-54331-3	50818011.D	08/18/2015	17:48
D-VB-E-4-2	240-54331-6	50818012.D	08/18/2015	18:13
D-VS-E-1-1	240-54331-1	50818013.D	08/18/2015	18:37
D-VS-E-3-1	240-54331-2	50818014.D	08/18/2015	19:01

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50818017.D Lab Sample ID: MB 240-193424/10-A

Matrix: Solid Date Extracted: 08/15/2015 10:20

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 14:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193424/11-A	50818004.D	08/18/2015 13:46
D-VB-E-5-2	240-54331-7	50818006.D	08/18/2015 14:59
D-VB-E-5-2 MS	240-54331-7 MS	50818007.D	08/18/2015 15:23
D-VB-E-5-2 MSD	240-54331-7 MSD	50818008.D	08/18/2015 15:47
D-VB-E-1-2	240-54331-4	50818009.D	08/18/2015 17:00
D-VB-E-2-2	240-54331-5	50818010.D	08/18/2015 17:24
D-VS-E-4-1	240-54331-3	50818011.D	08/18/2015 17:48
D-VB-E-4-2	240-54331-6	50818012.D	08/18/2015 18:13
D-VS-E-1-1	240-54331-1	50818013.D	08/18/2015 18:37
D-VS-E-3-1	240-54331-2	50818014.D	08/18/2015 19:01

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193424/10-A

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 14:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	42		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193424/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	412	62	38-110	
Acenaphthylene	667	420	63	40-110	
Anthracene	667	439	66	48-110	
Benzo[a]anthracene	667	432	65	50-110	
Benzo[a]pyrene	667	458	69	44-110	
Benzo[b]fluoranthene	667	446	67	43-110	
Benzo[g,h,i]perylene	667	491	74	51-110	
Benzo[k]fluoranthene	667	437	66	38-105	
Chrysene	667	466	70	50-110	
Dibenz(a,h)anthracene	667	517	78	51-110	
Fluoranthene	667	444	67	51-110	
Fluorene	667	401	60	46-110	
Indeno[1,2,3-cd]pyrene	667	526	79	50-110	
Naphthalene	667	421	63	36-110	
Phenanthrene	667	430	65	49-110	
Pyrene	667	428	64	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818007.D

Lab ID: 240-54331-7 MS Client ID: D-VB-E-5-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	780	0.90 U	374	48	22-110	
Acenaphthylene	780	0.42 U	373	48	24-110	
Anthracene	780	0.93 U	401	51	20-110	
Benzo[a]anthracene	780	0.75 U	415	53	10-122	
Benzo[a]pyrene	780	0.76 U	424	54	10-110	
Benzo[b]fluoranthene	780	0.70 U	435	56	12-118	
Benzo[g,h,i]perylene	780	0.42 U	467	60	10-117	
Benzo[k]fluoranthene	780	0.81 U	406	52	10-121	
Chrysene	780	1.3 U	430	55	10-125	
Dibenz(a,h)anthracene	780	0.79 U	491	63	14-113	
Fluoranthene	780	0.65 U	394	50	10-110	
Fluorene	780	0.63 U	379	49	23-110	
Indeno[1,2,3-cd]pyrene	780	0.42 U	485	62	10-114	
Naphthalene	780	0.98 U	353	45	10-111	
Phenanthrene	780	0.87 U	393	50	10-166	
Pyrene	780	0.52 U	413	53	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818008.D

Lab ID: 240-54331-7 MSD Client ID: D-VB-E-5-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	785	404	51	8	99	22-110	
Acenaphthylene	785	410	52	9	99	24-110	
Anthracene	785	455	58	13	99	20-110	
Benzo[a]anthracene	785	466	59	12	99	10-122	
Benzo[a]pyrene	785	489	62	14	99	10-110	
Benzo[b]fluoranthene	785	484	62	11	99	12-118	
Benzo[g,h,i]perylene	785	538	69	14	99	10-117	
Benzo[k]fluoranthene	785	454	58	11	99	10-121	
Chrysene	785	490	62	13	99	10-125	
Dibenz(a,h)anthracene	785	556	71	12	99	14-113	
Fluoranthene	785	455	58	15	99	10-110	
Fluorene	785	414	53	9	99	23-110	
Indeno[1,2,3-cd]pyrene	785	552	70	13	99	10-114	
Naphthalene	785	352	45	0	99	10-111	
Phenanthrene	785	449	57	13	99	10-166	
Pyrene	785	464	59	12	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-E-1-1	240-54331-1	53	55	45	53	10	58
D-VS-E-3-1	240-54331-2	47	53	41	53	20	60
D-VS-E-4-1	240-54331-3	45	45	41	48	10	51
D-VB-E-1-2	240-54331-4	46	46	40	43	12	51
D-VB-E-2-2	240-54331-5	41	45	36	44	13	50
D-VB-E-4-2	240-54331-6	44	49	38	47	7 X	54
D-VB-E-5-2	240-54331-7	52	54	44	49	15	55
	MB 240-193424/10-A	45	50	42	47	11	50
	LCS 240-193424/11-A	67	69	60	63	22	67
D-VB-E-5-2 MS	240-54331-7 MS	49	53	43	48	25	55
D-VB-E-5-2 MSD	240-54331-7 MSD	49	51	40	49	26	59

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		218581	6.11	923296	7.23	508825	8.73
MB 240-193424/10-A		261862	6.11	1132843	7.23	617978	8.73
240-54331-7	D-VB-E-5-2	234558	6.11	1021038	7.23	565234	8.73
240-54331-7 MS	D-VB-E-5-2 MS	224841	6.11	1011830	7.23	550681	8.73
240-54331-7 MSD	D-VB-E-5-2 MSD	238933	6.11	1038896	7.23	558166	8.73
240-54331-4	D-VB-E-1-2	276771	6.11	1155224	7.23	637288	8.73
240-54331-5	D-VB-E-2-2	261789	6.11	1095290	7.23	598732	8.73
240-54331-3	D-VS-E-4-1	265827	6.11	1120088	7.23	607270	8.73
240-54331-6	D-VB-E-4-2	267233	6.11	1161979	7.23	641402	8.73
240-54331-1	D-VS-E-1-1	274817	6.11	1162834	7.23	639254	8.73
240-54331-2	D-VS-E-3-1	280142	6.11	1187877	7.23	650166	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		825964	9.99	868728	12.62	738287	14.77
MB 240-193424/10-A		1058567	9.99	1066056	12.62	885805	14.77
240-54331-7	D-VB-E-5-2	944387	9.99	938098	12.62	754063	14.77
240-54331-7 MS	D-VB-E-5-2 MS	902825	9.99	883687	12.62	756388	14.77
240-54331-7 MSD	D-VB-E-5-2 MSD	922634	9.99	919509	12.62	795149	14.77
240-54331-4	D-VB-E-1-2	1072455	9.99	1061598	12.62	861364	14.77
240-54331-5	D-VB-E-2-2	1009335	9.99	1013985	12.62	789631	14.77
240-54331-3	D-VS-E-4-1	1034196	9.99	1054920	12.62	890356	14.77
240-54331-6	D-VB-E-4-2	1051260	9.99	1056247	12.63	916355	14.78
240-54331-1	D-VS-E-1-1	1039036	9.99	1072722	12.63	929542	14.78
240-54331-2	D-VS-E-3-1	1074942	9.99	1095879	12.63	930906	14.78

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 24, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54373-1

SAMPLES: 9 / Soil / PAHs

D-DUP04-081415	D-VB-F-11-2	D-VB-F-12-2
D-VB-F-16-2	D-VB-F-17-2	D-VB-F-18-2
D-VB-F-21-3	D-VB-F-22-2	D-VB-F-6-2

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54373-1, consists of nine (9) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). One (1) field duplicate pair is included in this SDG: D-VB-F-21-3 (original) / D-DUP04-081415 (duplicate).

The samples were collected by Tetra Tech on August 14, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- In the field duplicate pair samples D-VB-F-21-3 / D-DUP04-081415, the difference exceeded 2x the reporting limit (RL) for fluoranthene and pyrene. Detected and non-detected results for these analytes were qualified as estimated (J and UJ, respectively) in the field duplicate pair samples D-VB-F-21-3 and D-DUP04-081415.

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

The surrogate 2,4,6-tribromophenol percent recoveries (%Rs) were less than the laboratory quality control range for D-VB-F-11-2, D-VB-F-12-2, D-VB-F-16-2, D-VB-F-17-2, and D-VB-F-18-2. No action was necessary, as none of the target analytes are associated with the acid surrogate 2,4,6-tribromophenol.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Several detected and non-detected results were qualified for field duplicate imprecision. Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP04-081415			D-VB-F-11-2			D-VB-F-12-2			D-VB-F-16-2		
SDG: 240-54373-1	LAB_ID	240-54373-9			240-54373-2			240-54373-3			240-54373-4		
FRACTION: PAH	SAMP_DATE	8/14/2015			8/14/2015			8/14/2015			8/14/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.5			92.1			90.7			87.5		
	DUP_OF	D-VB-F-21-3											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.94	U		0.82	U		59			0.86	U	
ACENAPHTHYLENE		0.43	U		0.38	U		7.2	J	P	0.4	U	
ANTHRACENE		0.96	U		0.84	U		90			0.88	U	
BENZO(A)ANTHRACENE		9.6			13			210			0.71	U	
BENZO(A)PYRENE		7	J	P	15			210			0.72	U	
BENZO(B)FLUORANTHENE		12			26			280			0.67	U	
BENZO(G,H,I)PERYLENE		0.43	U		11			92			0.4	U	
BENZO(K)FLUORANTHENE		4.3	J	P	6.2	J	P	110			0.77	U	
CHRYSENE		8	J	P	20			230			1.2	U	
DIBENZO(A,H)ANTHRACENE		0.82	U		0.71	U		34			0.75	U	
FLUORANTHENE		21	J	G	22			440			0.62	U	
FLUORENE		0.65	U		0.57	U		37			0.6	U	
INDENO(1,2,3-CD)PYRENE		0.43	U		10			100			0.4	U	
NAPHTHALENE		1	U		4.4	J	P	17			0.93	U	
PHENANTHRENE		5.8	J	P	11			330			0.83	U	
PYRENE		18	J	G	24			370			0.5	U	

PROJ_NO: 07483	NSAMPLE	D-VB-F-17-2			D-VB-F-18-2			D-VB-F-21-3			D-VB-F-22-2		
SDG: 240-54373-1	LAB_ID	240-54373-5			240-54373-6			240-54373-7			240-54373-8		
FRACTION: PAH	SAMP_DATE	8/14/2015			8/14/2015			8/14/2015			8/14/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			80.8			81.1			82.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		6.8	J	P	0.93	U		0.91	U	
ACENAPHTHYLENE		0.41	U		0.43	U		0.43	U		9.6		
ANTHRACENE		0.9	U		20			0.96	U		44		
BENZO(A)ANTHRACENE		16			110			0.77	U		170		
BENZO(A)PYRENE		13			88			0.78	U		250		
BENZO(B)FLUORANTHENE		21			130			0.72	U		300		
BENZO(G,H,I)PERYLENE		6.6	J	P	52			0.43	U		110		
BENZO(K)FLUORANTHENE		8.9			59			0.83	U		140		
CHRYSENE		18			120			1.3	U		340		
DIBENZO(A,H)ANTHRACENE		0.77	U		16			0.81	U		32		
FLUORANTHENE		36			260			0.67	UJ	G	160		
FLUORENE		0.61	U		6.3	J	P	0.65	U		5.2	J	P
INDENO(1,2,3-CD)PYRENE		6.6	J	P	46			0.43	U		100		
NAPHTHALENE		0.95	U		5.8	J	P	1	U		16		
PHENANTHRENE		14			120			0.89	U		45		
PYRENE		30			210			0.54	UJ	G	160		

PROJ_NO: 07483	NSAMPLE	D-VB-F-6-2		
SDG: 240-54373-1	LAB_ID	240-54373-1		
FRACTION: PAH	SAMP_DATE	8/14/2015		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	83.1		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ACENAPHTHENE		0.91	U	
ACENAPHTHYLENE		0.42	U	
ANTHRACENE		0.94	U	
BENZO(A)ANTHRACENE		0.76	U	
BENZO(A)PYRENE		0.77	U	
BENZO(B)FLUORANTHENE		0.71	U	
BENZO(G,H,I)PERYLENE		0.42	U	
BENZO(K)FLUORANTHENE		0.82	U	
CHRYSENE		1.3	U	
DIBENZO(A,H)ANTHRACENE		0.79	U	
FLUORANTHENE		0.66	U	
FLUORENE		0.64	U	
INDENO(1,2,3-CD)PYRENE		0.42	U	
NAPHTHALENE		0.99	U	
PHENANTHRENE		0.88	U	
PYRENE		0.53	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-DUP04-081415 | Lab Sample ID: 240-54373-9

Matrix: Solid | Lab File ID: 50818028.D

Analysis Method: 8270D | Date Collected: 08/14/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 29.79(g) | Date Analyzed: 08/18/2015 23:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.94	U	8.2	0.94
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.96	U	8.2	0.96
56-55-3	Benzo[a]anthracene	9.6		8.2	0.78
50-32-8	Benzo[a]pyrene	7.0	J	8.2	0.79
205-99-2	Benzo[b]fluoranthene	12		8.2	0.73
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	4.3	J	8.2	0.84
218-01-9	Chrysene	8.0	J	8.2	1.4
53-70-3	Dibenz(a,h)anthracene	0.82	U	8.2	0.82
206-44-0	Fluoranthene	21		8.2	0.68
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	5.8	J	8.2	0.90
129-00-0	Pyrene	18		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	55		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-11-2 | Lab Sample ID: 240-54373-2

Matrix: Solid | Lab File ID: 50818021.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:42

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.28(g) | Date Analyzed: 08/18/2015 20:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.82	U	7.2	0.82
208-96-8	Acenaphthylene	0.38	U	7.2	0.38
120-12-7	Anthracene	0.84	U	7.2	0.84
56-55-3	Benzo[a]anthracene	13		7.2	0.68
50-32-8	Benzo[a]pyrene	15		7.2	0.69
205-99-2	Benzo[b]fluoranthene	26		7.2	0.63
191-24-2	Benzo[g,h,i]perylene	11		7.2	0.38
207-08-9	Benzo[k]fluoranthene	6.2	J	7.2	0.73
218-01-9	Chrysene	20		7.2	1.2
53-70-3	Dibenz(a,h)anthracene	0.71	U	7.2	0.71
206-44-0	Fluoranthene	22		7.2	0.59
86-73-7	Fluorene	0.57	U	7.2	0.57
193-39-5	Indeno[1,2,3-cd]pyrene	10		7.2	0.38
91-20-3	Naphthalene	4.4	J	7.2	0.88
85-01-8	Phenanthrene	11		7.2	0.79
129-00-0	Pyrene	24		7.2	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	49		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	48		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	5	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-12-2 | Lab Sample ID: 240-54373-3

Matrix: Solid | Lab File ID: 50818022.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:44

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.21(g) | Date Analyzed: 08/18/2015 21:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	59		7.3	0.83
208-96-8	Acenaphthylene	7.2	J	7.3	0.38
120-12-7	Anthracene	90		7.3	0.85
56-55-3	Benzo[a]anthracene	210		7.3	0.69
50-32-8	Benzo[a]pyrene	210		7.3	0.70
205-99-2	Benzo[b]fluoranthene	280		7.3	0.65
191-24-2	Benzo[g,h,i]perylene	92		7.3	0.38
207-08-9	Benzo[k]fluoranthene	110		7.3	0.74
218-01-9	Chrysene	230		7.3	1.2
53-70-3	Dibenz(a,h)anthracene	34		7.3	0.72
206-44-0	Fluoranthene	440		7.3	0.60
86-73-7	Fluorene	37		7.3	0.58
193-39-5	Indeno[1,2,3-cd]pyrene	100		7.3	0.38
91-20-3	Naphthalene	17		7.3	0.90
85-01-8	Phenanthrene	330		7.3	0.80
129-00-0	Pyrene	370		7.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	43		36-110
4165-62-2	Phenol-d5 (Surr)	43		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	34		20-110
367-12-4	2-Fluorophenol (Surr)	41		24-110
321-60-8	2-Fluorobiphenyl (Surr)	43		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	4	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-16-2 | Lab Sample ID: 240-54373-4

Matrix: Solid | Lab File ID: 50818023.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:46

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.27(g) | Date Analyzed: 08/18/2015 21:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.86	U	7.6	0.86
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	0.88	U	7.6	0.88
56-55-3	Benzo[a]anthracene	0.71	U	7.6	0.71
50-32-8	Benzo[a]pyrene	0.72	U	7.6	0.72
205-99-2	Benzo[b]fluoranthene	0.67	U	7.6	0.67
191-24-2	Benzo[g,h,i]perylene	0.40	U	7.6	0.40
207-08-9	Benzo[k]fluoranthene	0.77	U	7.6	0.77
218-01-9	Chrysene	1.2	U	7.6	1.2
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	0.62	U	7.6	0.62
86-73-7	Fluorene	0.60	U	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	0.40	U	7.6	0.40
91-20-3	Naphthalene	0.93	U	7.6	0.93
85-01-8	Phenanthrene	0.83	U	7.6	0.83
129-00-0	Pyrene	0.50	U	7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	52		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-17-2 | Lab Sample ID: 240-54373-5

Matrix: Solid | Lab File ID: 50818024.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:48

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.02(g) | Date Analyzed: 08/18/2015 21:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	16		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	21		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	6.6	J	7.7	0.41
207-08-9	Benzo[k]fluoranthene	8.9		7.7	0.79
218-01-9	Chrysene	18		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	36		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	6.6	J	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	14		7.7	0.85
129-00-0	Pyrene	30		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		20-110
367-12-4	2-Fluorophenol (Surr)	53		24-110
321-60-8	2-Fluorobiphenyl (Surr)	51		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	9	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-18-2 | Lab Sample ID: 240-54373-6

Matrix: Solid | Lab File ID: 50818025.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:50

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.24(g) | Date Analyzed: 08/18/2015 22:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	6.8	J	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	20		8.2	0.96
56-55-3	Benzo[a]anthracene	110		8.2	0.77
50-32-8	Benzo[a]pyrene	88		8.2	0.79
205-99-2	Benzo[b]fluoranthene	130		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	52		8.2	0.43
207-08-9	Benzo[k]fluoranthene	59		8.2	0.83
218-01-9	Chrysene	120		8.2	1.4
53-70-3	Dibenz(a,h)anthracene	16		8.2	0.81
206-44-0	Fluoranthene	260		8.2	0.68
86-73-7	Fluorene	6.3	J	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	46		8.2	0.43
91-20-3	Naphthalene	5.8	J	8.2	1.0
85-01-8	Phenanthrene	120		8.2	0.90
129-00-0	Pyrene	210		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	57		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		20-110
367-12-4	2-Fluorophenol (Surr)	56		24-110
321-60-8	2-Fluorobiphenyl (Surr)	54		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-21-3 | Lab Sample ID: 240-54373-7

Matrix: Solid | Lab File ID: 50818026.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:52

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.21(g) | Date Analyzed: 08/18/2015 22:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.96	U	8.2	0.96
56-55-3	Benzo[a]anthracene	0.77	U	8.2	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.2	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.2	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.2	0.83
218-01-9	Chrysene	1.3	U	8.2	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.2	0.81
206-44-0	Fluoranthene	0.67	U	8.2	0.67
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	0.89	U	8.2	0.89
129-00-0	Pyrene	0.54	U	8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	48		36-110
4165-62-2	Phenol-d5 (Surr)	47		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	45		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-22-2 | Lab Sample ID: 240-54373-8

Matrix: Solid | Lab File ID: 50818027.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:54

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.25(g) | Date Analyzed: 08/18/2015 23:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	9.6		8.0	0.42
120-12-7	Anthracene	44		8.0	0.93
56-55-3	Benzo[a]anthracene	170		8.0	0.75
50-32-8	Benzo[a]pyrene	250		8.0	0.77
205-99-2	Benzo[b]fluoranthene	300		8.0	0.71
191-24-2	Benzo[g,h,i]perylene	110		8.0	0.42
207-08-9	Benzo[k]fluoranthene	140		8.0	0.81
218-01-9	Chrysene	340		8.0	1.3
53-70-3	Dibenz(a,h)anthracene	32		8.0	0.79
206-44-0	Fluoranthene	160		8.0	0.66
86-73-7	Fluorene	5.2	J	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	100		8.0	0.42
91-20-3	Naphthalene	16		8.0	0.98
85-01-8	Phenanthrene	45		8.0	0.87
129-00-0	Pyrene	160		8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	51		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-6-2 | Lab Sample ID: 240-54373-1

Matrix: Solid | Lab File ID: 50818020.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:40

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 20:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.94	U	8.0	0.94
56-55-3	Benzo[a]anthracene	0.76	U	8.0	0.76
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	0.71	U	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.0	0.82
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.64	U	8.0	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.99	U	8.0	0.99
85-01-8	Phenanthrene	0.88	U	8.0	0.88
129-00-0	Pyrene	0.53	U	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	49		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	47		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

APPENDIX C

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

1.8 | C28 #30

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAH (8270D)	REMARKS
MRC	8/14/15	1140		X	D-VB-F-6-2	1	X	# TESTAMERICA NORTH CANTON
		1142		X	D-VB-F-11-2		X	# SCOTT NESBIT P.M.
		1144		X	D-VB-F-12-2		X	# 3 DAY TAT #
		1146		X	D-VB-F-16-2		X	
		1148		X	D-VB-F-17-2		X	
		1150		X	D-VB-F-18-2		X	
		1152		X	D-VB-F-21-3		X	
		1154		X	D-VB-F-22-2		X	
		—		X	D-DUP04-081415		X	

8/14/15

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1600				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1700		—		
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA F.	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 54373

Client Tetra Tech Site Name MRC ~~AMPE~~ Soil Remedy

Cooler unpacked by: Heather Wagoner

Cooler Received on 8/15/15 Opened on 8/15/15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   - IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
   - ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   - ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   - IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   - -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   - -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC432654
12. Were VOAs on the COC? Yes (No)
13. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes (No)

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54373-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/15/2015 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/17/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), and D-VB-F-18-2 (240-54373-6).

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693 associated with samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9). However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54373-1	D-VB-F-6-2	Solid	08/14/2015 1140	08/15/2015 0940
240-54373-2	D-VB-F-11-2	Solid	08/14/2015 1142	08/15/2015 0940
240-54373-3	D-VB-F-12-2	Solid	08/14/2015 1144	08/15/2015 0940
240-54373-4	D-VB-F-16-2	Solid	08/14/2015 1146	08/15/2015 0940
240-54373-5	D-VB-F-17-2	Solid	08/14/2015 1148	08/15/2015 0940
240-54373-6	D-VB-F-18-2	Solid	08/14/2015 1150	08/15/2015 0940
240-54373-7	D-VB-F-21-3	Solid	08/14/2015 1152	08/15/2015 0940
240-54373-8	D-VB-F-22-2	Solid	08/14/2015 1154	08/15/2015 0940
240-54373-9	D-DUP04-081415	Solid	08/14/2015 0000	08/15/2015 0940

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

FIELD DUPLICATE PRECISION

ANALYTE	D-VB-F-21-3	QUAL	D-DUP04-081415	QUAL	RPD	DIFFERENCE	RL
BENZO(A)ANTHRACENE	0.77	U	9.6		~~170.30~~	8.83	8.2
BENZO(A)PYRENE	0.78	U	7	J	~~159.90~~	6.22	8.2
BENZO(B)FLUORANTHENE	0.72	U	12		~~177.36~~	11.28	8.2
BENZO(K)FLUORANTHENE	0.83	U	4.3	J	~~135.28~~	3.47	8.2
CHRYSENE	1.3	U	8	J	~~144.09~~	6.70	8.2
FLUORANTHENE	0.67	U	21		~~187.63~~	20.33	8.2
PHENANTHRENE	0.89	U	5.8	J	~~146.79~~	4.91	8.2
PYRENE	0.54	U	18		~~188.35~~	17.46	8.2

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 | Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	MB 240-193501/23-A	50818018.D	08/18/2015	16:11
	LCS 240-193501/24-A	50818019.D	08/18/2015	16:36
D-VB-F-6-2	240-54373-1	50818020.D	08/18/2015	20:14
D-VB-F-11-2	240-54373-2	50818021.D	08/18/2015	20:38
D-VB-F-12-2	240-54373-3	50818022.D	08/18/2015	21:02
D-VB-F-16-2	240-54373-4	50818023.D	08/18/2015	21:26
D-VB-F-17-2	240-54373-5	50818024.D	08/18/2015	21:50
D-VB-F-18-2	240-54373-6	50818025.D	08/18/2015	22:14
D-VB-F-21-3	240-54373-7	50818026.D	08/18/2015	22:38
D-VB-F-22-2	240-54373-8	50818027.D	08/18/2015	23:02
D-DUP04-081415	240-54373-9	50818028.D	08/18/2015	23:26

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50818018.D Lab Sample ID: MB 240-193501/23-A

Matrix: Solid Date Extracted: 08/17/2015 07:04

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 16:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193501/24-A	50818019.D	08/18/2015 16:36
D-VB-F-6-2	240-54373-1	50818020.D	08/18/2015 20:14
D-VB-F-11-2	240-54373-2	50818021.D	08/18/2015 20:38
D-VB-F-12-2	240-54373-3	50818022.D	08/18/2015 21:02
D-VB-F-16-2	240-54373-4	50818023.D	08/18/2015 21:26
D-VB-F-17-2	240-54373-5	50818024.D	08/18/2015 21:50
D-VB-F-18-2	240-54373-6	50818025.D	08/18/2015 22:14
D-VB-F-21-3	240-54373-7	50818026.D	08/18/2015 22:38
D-VB-F-22-2	240-54373-8	50818027.D	08/18/2015 23:02
D-DUP04-081415	240-54373-9	50818028.D	08/18/2015 23:26

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193501/23-A

Matrix: Solid | Lab File ID: 50818018.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 16:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	62		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	58		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818019.D

Lab ID: LCS 240-193501/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	358	54	38-110	
Acenaphthylene	667	367	55	40-110	
Anthracene	667	379	57	48-110	
Benzo[a]anthracene	667	389	58	50-110	
Benzo[a]pyrene	667	404	61	44-110	
Benzo[b]fluoranthene	667	402	60	43-110	
Benzo[g,h,i]perylene	667	430	64	51-110	
Benzo[k]fluoranthene	667	379	57	38-105	
Chrysene	667	401	60	50-110	
Dibenz(a,h)anthracene	667	458	69	51-110	
Fluoranthene	667	381	57	51-110	
Fluorene	667	356	53	46-110	
Indeno[1,2,3-cd]pyrene	667	455	68	50-110	
Naphthalene	667	357	54	36-110	
Phenanthrene	667	371	56	49-110	
Pyrene	667	389	58	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VB-F-6-2	240-54373-1	47	49	40	47	13	50
D-VB-F-11-2	240-54373-2	48	50	41	47	5 X	49
D-VB-F-12-2	240-54373-3	41	43	34	43	4 X	43
D-VB-F-16-2	240-54373-4	49	50	43	48	8 X	52
D-VB-F-17-2	240-54373-5	53	51	45	51	9 X	55
D-VB-F-18-2	240-54373-6	56	57	47	54	8 X	55
D-VB-F-21-3	240-54373-7	49	47	40	45	11	48
D-VB-F-22-2	240-54373-8	51	51	43	48	18	51
D-DUP04-081415	240-54373-9	59	60	49	55	15	58
	MB 240-193501/23-A	63	67	55	58	13	62
	LCS 240-193501/24-A	60	62	50	56	19	61

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193501/23-A		220827	6.11	984016	7.23	548343	8.73
LCS 240-193501/24-A		240552	6.11	1049643	7.23	575038	8.73
240-54373-1	D-VB-F-6-2	266835	6.11	1153825	7.23	632626	8.73
240-54373-2	D-VB-F-11-2	283885	6.11	1224865	7.23	670948	8.73
240-54373-3	D-VB-F-12-2	271704	6.11	1170378	7.23	630466	8.73
240-54373-4	D-VB-F-16-2	294820	6.11	1244967	7.23	671521	8.73
240-54373-5	D-VB-F-17-2	248099	6.11	1085002	7.23	580837	8.73
240-54373-6	D-VB-F-18-2	246441	6.11	1073942	7.23	575419	8.73
240-54373-7	D-VB-F-21-3	262503	6.11	1132265	7.23	629295	8.73
240-54373-8	D-VB-F-22-2	269869	6.11	1149283	7.23	630223	8.73
240-54373-9	D-DUP04-081415	246583	6.11	1055931	7.23	580629	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193501/23-A		922081	9.99	900632	12.62	752912	14.77
LCS 240-193501/24-A		948118	9.99	955369	12.62	824602	14.77
240-54373-1	D-VB-F-6-2	1045185	9.99	1040017	12.62	868864	14.77
240-54373-2	D-VB-F-11-2	1122661	9.99	1113099	12.62	918733	14.77
240-54373-3	D-VB-F-12-2	1054919	9.99	1053188	12.62	852373	14.77
240-54373-4	D-VB-F-16-2	1102805	9.99	1097445	12.62	907232	14.77
240-54373-5	D-VB-F-17-2	972701	9.99	986733	12.62	781122	14.77
240-54373-6	D-VB-F-18-2	983621	9.99	988451	12.62	791757	14.77
240-54373-7	D-VB-F-21-3	1042632	9.99	1071372	12.62	828526	14.77
240-54373-8	D-VB-F-22-2	1048257	9.99	1067660	12.62	824912	14.77
240-54373-9	D-DUP04-081415	964754	9.99	980049	12.62	757357	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 26, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54467-1

SAMPLES: 6 / Soil / PAHs

D-VB-F-10-2	D-VB-F-13-2	D-VB-F-14-2
D-VB-F-15-2	D-VB-F-19-2	D-VS-F-4-1

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54467-1, consists of seven (7) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). No field duplicate pair is included in this SDG.

The samples were collected by Tetra Tech on August 18, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

Sample D-VB-F-13-2 was analyzed at dilution factor of 6.66.

The matrix spike (MS)/matrix spike duplicate (MSD) analysis included in this data package had MS percent recoveries (%Rs) less than laboratory quality control criteria for fluoranthene and pyrene and MSD %Rs greater than laboratory quality control criteria for benzo(a)pyrene and benzo(b)fluoranthene. No action was necessary because the MS/MSD analysis was performed on a sample that was not part of this SDG.

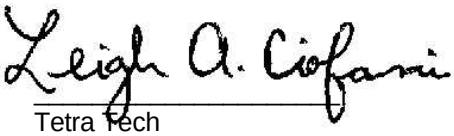
Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

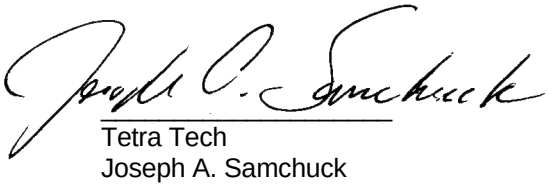
Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-VB-F-10-2			D-VB-F-13-2			D-VB-F-14-2			D-VB-F-15-2		
SDG: 240-54467-1	LAB_ID	240-54467-2			240-54467-3			240-54467-4			240-54467-5		
FRACTION: PAH	SAMP_DATE	8/18/2015			8/18/2015			8/18/2015			8/18/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.9			91.1			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		4.4	J	P	510			0.9	U		7.1	J	P
ACENAPHTHYLENE		6.1	J	P	71			0.42	U		0.4	U	
ANTHRACENE		12			1400			0.93	U		15		
BENZO(A)ANTHRACENE		43			2900			0.75	U		48		
BENZO(A)PYRENE		47			2700			5.8	J	P	50		
BENZO(B)FLUORANTHENE		58			3200			6.4	J	P	65		
BENZO(G,H,I)PERYLENE		36			2000			19			43		
BENZO(K)FLUORANTHENE		32			1600			0.81	U		29		
CHRYSENE		52			2900			11			49		
DIBENZO(A,H)ANTHRACENE		0.7	U		580			0.78	U		10		
FLUORANTHENE		81			6300			4.1	J	P	86		
FLUORENE		6.6	J	P	570			0.63	U		7.8		
INDENO(1,2,3-CD)PYRENE		31			1700			13			35		
NAPHTHALENE		12			47	J	P	0.97	U		7.3	J	P
PHENANTHRENE		47			4700			0.87	U		45		
PYRENE		76			5200			4.7	J	P	75		

PROJ_NO: 07483	NSAMPLE	D-VB-F-19-2			D-VS-F-4-1		
SDG: 240-54467-1	LAB_ID	240-54467-6			240-54467-1		
FRACTION: PAH	SAMP_DATE	8/18/2015			8/18/2015		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	86.3			90.4		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		10		
ACENAPHTHYLENE		0.41	U		22		
ANTHRACENE		5.9	J	P	39		
BENZO(A)ANTHRACENE		14			200		
BENZO(A)PYRENE		10			230		
BENZO(B)FLUORANTHENE		36			350		
BENZO(G,H,I)PERYLENE		22			260		
BENZO(K)FLUORANTHENE		12			130		
CHRYSENE		42			270		
DIBENZO(A,H)ANTHRACENE		0.77	U		54		
FLUORANTHENE		34			410		
FLUORENE		0.62	U		13		
INDENO(1,2,3-CD)PYRENE		17			190		
NAPHTHALENE		4.1	J	P	12		
PHENANTHRENE		15			180		
PYRENE		30			410		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-10-2 | Lab Sample ID: 240-54467-2

Matrix: Solid | Lab File ID: 50822022.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:30

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.24(g) | Date Analyzed: 08/22/2015 18:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 6.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.4	J	7.1	0.80
208-96-8	Acenaphthylene	6.1	J	7.1	0.37
120-12-7	Anthracene	12		7.1	0.82
56-55-3	Benzo[a]anthracene	43		7.1	0.67
50-32-8	Benzo[a]pyrene	47		7.1	0.68
205-99-2	Benzo[b]fluoranthene	58		7.1	0.62
191-24-2	Benzo[g,h,i]perylene	36		7.1	0.37
207-08-9	Benzo[k]fluoranthene	32		7.1	0.72
218-01-9	Chrysene	52		7.1	1.2
53-70-3	Dibenz(a,h)anthracene	0.70	U	7.1	0.70
206-44-0	Fluoranthene	81		7.1	0.58
86-73-7	Fluorene	6.6	J	7.1	0.56
193-39-5	Indeno[1,2,3-cd]pyrene	31		7.1	0.37
91-20-3	Naphthalene	12		7.1	0.87
85-01-8	Phenanthrene	47		7.1	0.77
129-00-0	Pyrene	76		7.1	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	51		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-13-2 | Lab Sample ID: 240-54467-3

Matrix: Solid | Lab File ID: 50822023.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:33

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.02(g) | Date Analyzed: 08/22/2015 19:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 6.667

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	510		49	5.6
208-96-8	Acenaphthylene	71		49	2.6
120-12-7	Anthracene	1400		49	5.7
56-55-3	Benzo[a]anthracene	2900		49	4.6
50-32-8	Benzo[a]pyrene	2700		49	4.7
205-99-2	Benzo[b]fluoranthene	3200		49	4.3
191-24-2	Benzo[g,h,i]perylene	2000		49	2.6
207-08-9	Benzo[k]fluoranthene	1600		49	5.0
218-01-9	Chrysene	2900		49	8.0
53-70-3	Dibenz(a,h)anthracene	580		49	4.8
206-44-0	Fluoranthene	6300		49	4.0
86-73-7	Fluorene	570		49	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	1700		49	2.6
91-20-3	Naphthalene	47	J	49	6.0
85-01-8	Phenanthrene	4700		49	5.3
129-00-0	Pyrene	5200		49	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	72		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	62		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-14-2 | Lab Sample ID: 240-54467-4

Matrix: Solid | Lab File ID: 50822018.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:35

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.94(g) | Date Analyzed: 08/22/2015 17:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	5.8	J	7.9	0.76
205-99-2	Benzo[b]fluoranthene	6.4	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	19		7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	11		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	4.1	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	4.7	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	52		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-15-2 | Lab Sample ID: 240-54467-5

Matrix: Solid | Lab File ID: 50822020.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:37

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.68(g) | Date Analyzed: 08/22/2015 17:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.1	J	7.7	0.87
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	15		7.7	0.90
56-55-3	Benzo[a]anthracene	48		7.7	0.72
50-32-8	Benzo[a]pyrene	50		7.7	0.74
205-99-2	Benzo[b]fluoranthene	65		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	43		7.7	0.40
207-08-9	Benzo[k]fluoranthene	29		7.7	0.78
218-01-9	Chrysene	49		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	10		7.7	0.76
206-44-0	Fluoranthene	86		7.7	0.63
86-73-7	Fluorene	7.8		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	35		7.7	0.40
91-20-3	Naphthalene	7.3	J	7.7	0.94
85-01-8	Phenanthrene	45		7.7	0.84
129-00-0	Pyrene	75		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	53		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-19-2 | Lab Sample ID: 240-54467-6

Matrix: Solid | Lab File ID: 50822019.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:40

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.91(g) | Date Analyzed: 08/22/2015 17:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	5.9	J	7.8	0.91
56-55-3	Benzo[a]anthracene	14		7.8	0.73
50-32-8	Benzo[a]pyrene	10		7.8	0.74
205-99-2	Benzo[b]fluoranthene	36		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	22		7.8	0.41
207-08-9	Benzo[k]fluoranthene	12		7.8	0.79
218-01-9	Chrysene	42		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	34		7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	17		7.8	0.41
91-20-3	Naphthalene	4.1	J	7.8	0.95
85-01-8	Phenanthrene	15		7.8	0.85
129-00-0	Pyrene	30		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VS-F-4-1 | Lab Sample ID: 240-54467-1

Matrix: Solid | Lab File ID: 50822021.D

Analysis Method: 8270D | Date Collected: 08/18/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.83(g) | Date Analyzed: 08/22/2015 18:16

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		7.4	0.85
208-96-8	Acenaphthylene	22		7.4	0.39
120-12-7	Anthracene	39		7.4	0.87
56-55-3	Benzo[a]anthracene	200		7.4	0.70
50-32-8	Benzo[a]pyrene	230		7.4	0.71
205-99-2	Benzo[b]fluoranthene	350		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	260		7.4	0.39
207-08-9	Benzo[k]fluoranthene	130		7.4	0.76
218-01-9	Chrysene	270		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	54		7.4	0.73
206-44-0	Fluoranthene	410		7.4	0.61
86-73-7	Fluorene	13		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	190		7.4	0.39
91-20-3	Naphthalene	12		7.4	0.91
85-01-8	Phenanthrene	180		7.4	0.81
129-00-0	Pyrene	410		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

APPENDIX C

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

0.6/C1.6

TEST America North Canton OH

PROJECT NO.: 112IC07483

SITE NAME: LMC MRC

SAMPLERS (SIGNATURE): Thomas M Dickson

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAHs (8270D)						REMARKS
BLKD Area F	08/18	0930	X		D-VS-F-4-1	1	1						3 Day TAT
		1030		X	D-VB-F-10-2	1	1						
		1033		X	D-VB-F-13-2	1	1						
		1035		X	D-VB-F-14-2	1	1						
		1037		X	D-VB-F-15-2	1	1						
		1040		X	D-VB-F-19-2	1	1						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Thomas M Dickson	18Aug15 1200	Paul Gayleard	[signature]	8-15-2015 1405	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
		[signature] 8-19-15 920			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 34467**
Canton Facility

Client Tetratech Site Name _____ Cooler unpacked by:

Cooler Received on 8-19-15 Opened on 8-19-15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.6 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2.	Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
	-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
	-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3.	Shippers' packing slip attached to the cooler(s)?	Yes	No
4.	Did custody papers accompany the sample(s)?	Yes	No
5.	Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7.	Did all bottles arrive in good condition (Unbroken)?	Yes	No
8.	Could all bottle labels be reconciled with the COC?	Yes	No
9.	Were correct bottle(s) used for the test(s) indicated?	Yes	No
10.	Sufficient quantity received to perform indicated analyses?	Yes	No
11.	Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12.	Were VOAs on the COC?	Yes	No
13.	Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14.	Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LMC MRC Block D Area F

Report Number: 240-54467-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/19/2015 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F-4-1 (240-54467-1), D-VB-F-10-2 (240-54467-2), D-VB-F-13-2 (240-54467-3), D-VB-F-14-2 (240-54467-4), D-VB-F-15-2 (240-54467-5) and D-VB-F-19-2 (240-54467-6) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/20/2015 and analyzed on 08/22/2015.

Sample D-VB-F-13-2 (240-54467-3)[6.67X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F-4-1 (240-54467-1), D-VB-F-10-2 (240-54467-2), D-VB-F-13-2 (240-54467-3), D-VB-F-14-2 (240-54467-4), D-VB-F-15-2 (240-54467-5) and D-VB-F-19-2 (240-54467-6) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/19/2015.

Percent Moisture exceeded the RPD limit for the duplicate of sample D-VB-F-10-2DU (240-54467-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54467-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54467-1	D-VS-F-4-1	Solid	08/18/2015 0930	08/19/2015 0920
240-54467-2	D-VB-F-10-2	Solid	08/18/2015 1030	08/19/2015 0920
240-54467-3	D-VB-F-13-2	Solid	08/18/2015 1033	08/19/2015 0920
240-54467-4	D-VB-F-14-2	Solid	08/18/2015 1035	08/19/2015 0920
240-54467-5	D-VB-F-15-2	Solid	08/18/2015 1037	08/19/2015 0920
240-54467-6	D-VB-F-19-2	Solid	08/18/2015 1040	08/19/2015 0920

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54467-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54467-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	F3	Duplicate RPD exceeds the control limit

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50822001.D DFTPP Injection Date: 08/22/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:35

Analysis Batch No.: 194396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	84.4	
70	Less than 2.0% of mass 69	0.5	(0.5)1
127	25.0 - 75.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	23.0	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.4	
442	40.0 - 110.0% of mass 198	50.0	
443	15.0 - 24.0% of mass 442	9.7	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-194396/2	50822002.D	08/22/2015	09:56
	MB 240-194053/12-A	50822003.D	08/22/2015	10:50
	LCS 240-194053/13-A	50822004.D	08/22/2015	11:15
D-VB-F-14-2	240-54467-4	50822018.D	08/22/2015	17:01
D-VB-F-19-2	240-54467-6	50822019.D	08/22/2015	17:26
D-VB-F-15-2	240-54467-5	50822020.D	08/22/2015	17:51
D-VS-F-4-1	240-54467-1	50822021.D	08/22/2015	18:16
D-VB-F-10-2	240-54467-2	50822022.D	08/22/2015	18:41
D-VB-F-13-2	240-54467-3	50822023.D	08/22/2015	19:05
	240-54203-C-19-H MS	50822026.D	08/22/2015	20:19
	240-54203-C-19-I MSD	50822027.D	08/22/2015	20:44

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID (1): CCV 240-194396/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/22/2015 09:56

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.98	100.0
Phenol-d5 (Surr)	5.88	100.0
Nitrobenzene-d5 (Surr)	6.69	100.0
Naphthalene	7.35	100.0
2-Fluorobiphenyl (Surr)	8.23	100.0
Acenaphthylene	8.72	100.0
Acenaphthene	8.86	100.0
Fluorene	9.29	100.0
2,4,6-Tribromophenol (Surr)	9.50	100.0
Phenanthrene	10.11	100.0
Anthracene	10.16	100.0
Fluoranthene	11.12	100.0
Pyrene	11.32	100.0
Terphenyl-d14 (Surr)	11.41	100.0
Benzo[a]anthracene	12.34	100.0
Chrysene	12.37	100.0
Benzo[b]fluoranthene	13.48	35.00
Benzo[k]fluoranthene	13.51	100.0
Benzo[a]pyrene	13.91	100.0
Indeno[1,2,3-cd]pyrene	15.76	100.0
Dibenz(a,h)anthracene	15.76	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 | Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	1.064		10.8	10.0	8.0	20.0
N-Nitrosodimethylamine	Ave	1.693	1.874		11.1	10.0	10.7	20.0
Pyridine	Ave	2.930	3.163		10.8	10.0	7.9	20.0
Benzaldehyde	Ave	2.328	2.313	0.0100	19.9	20.0	-0.6	20.0
Phenol	Ave	2.775	2.972	0.8000	10.7	10.0	7.1	20.0
Aniline	Ave	3.583	3.637		10.2	10.0	1.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.662	0.7000	10.6	10.0	6.2	20.0
2-Chlorophenol	Ave	1.523	1.535	0.8000	10.1	10.0	0.8	20.0
n-Decane	Ave	1.999	2.072		10.4	10.0	3.6	20.0
1,3-Dichlorobenzene	Ave	1.630	1.640		10.1	10.0	0.6	20.0
1,4-Dichlorobenzene	Ave	1.666	1.661		9.97	10.0	-0.3	20.0
Benzyl alcohol	Ave	1.232	1.157		9.39	10.0	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.580	1.560		9.87	10.0	-1.3	20.0
2-Methylphenol	Ave	1.706	1.689	0.7000	9.90	10.0	-1.0	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.714		9.09	10.0	-9.1	20.0
Indene	Ave	3.185	3.000		18.8	20.0	-5.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.959	0.5000	9.89	10.0	-1.1	20.0
3 & 4 Methylphenol	Ave	1.799	1.641		9.12	10.0	-8.8	20.0
Acetophenone	Ave	2.817	2.685	0.0100	9.53	10.0	-4.7	20.0
Hexachloroethane	Ave	0.8166	0.7972	0.3000	9.76	10.0	-2.4	20.0
Nitrobenzene	Ave	0.7749	0.7689	0.2000	9.92	10.0	-0.8	20.0
Isophorone	Ave	1.226	1.216	0.4000	9.92	10.0	-0.8	20.0
2-Nitrophenol	Ave	0.1796	0.1897	0.1000	10.6	10.0	5.6	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4672	0.2000	9.55	10.0	-4.5	20.0
Benzoic acid	Lin1		0.1515		13.7	20.0	-31.7*	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6889	0.3000	10.2	10.0	1.9	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2949	0.2000	9.63	10.0	-3.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3218		9.89	10.0	-1.1	20.0
Naphthalene	Ave	1.144	1.071	0.7000	9.36	10.0	-6.4	20.0
4-Chloroaniline	Ave	0.4932	0.4626	0.0100	9.38	10.0	-6.2	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2883		9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2017	0.1912	0.0100	9.48	10.0	-5.2	20.0
Caprolactam	Ave	0.1384	0.1408	0.0100	20.3	20.0	1.7	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.3917	0.2000	9.36	10.0	-6.4	20.0
2-Methylnaphthalene	Ave	0.7006	0.6612	0.4000	9.44	10.0	-5.6	20.0
1-Methylnaphthalene	Ave	0.6168	0.5854		9.49	10.0	-5.1	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.2617	0.0500	7.89	10.0	-21.1*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5731	0.0100	10.1	10.0	0.7	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3742	0.2000	9.99	10.0	-0.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3732	0.2000	9.46	10.0	-5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.419	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.171	1.126	0.8000	9.62	10.0	-3.8	20.0
2-Nitroaniline	Ave	0.6109	0.6459	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.267	1.253	0.0100	9.89	10.0	-1.1	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2152		10.9	10.0	9.1	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2953		10.5	10.0	5.3	20.0
Acenaphthylene	Ave	1.869	1.795	0.9000	9.61	10.0	-3.9	20.0
3-Nitroaniline	Ave	0.3056	0.3136	0.0100	10.3	10.0	2.6	20.0
2,4-Dinitrophenol	Lin1		0.1437	0.0100	19.8	20.0	-1.2	20.0
Acenaphthene	Ave	1.201	1.099	0.9000	9.16	10.0	-8.4	20.0
4-Nitrophenol	Ave	0.2548	0.2595		20.4	20.0	1.8	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.4005	0.2000	10.7	10.0	7.1	20.0
Dibenzofuran	Ave	1.648	1.524	0.8000	9.25	10.0	-7.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3106	0.0100	9.87	10.0	-1.3	20.0
Diethyl phthalate	Ave	1.245	1.167	0.0100	9.38	10.0	-6.2	20.0
Hexadecane	Ave	1.016	0.9637		9.48	10.0	-5.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5927	0.4000	9.66	10.0	-3.4	20.0
4-Nitroaniline	Ave	0.2967	0.3260	0.0100	11.0	10.0	9.9	20.0
Fluorene	Ave	1.379	1.258	0.9000	9.12	10.0	-8.8	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1315	0.0100	21.4	20.0	6.9	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5285	0.0100	18.6	20.0	-7.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.535		9.71	10.0	-2.8	20.0
Azobenzene	Ave	1.580	1.535		9.71	10.0	-2.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2069	0.1000	9.68	10.0	-3.2	20.0
Hexachlorobenzene	Ave	0.2114	0.2042	0.1000	9.66	10.0	-3.4	20.0
Atrazine	Ave	0.2132	0.2163	0.0100	20.3	20.0	1.4	20.0
n-Octadecane	Ave	0.6421	0.6061		9.44	10.0	-5.6	20.0
Pentachlorophenol	Ave	0.1444	0.1228	0.0500	17.0	20.0	-14.9	20.0
Phenanthrene	Ave	1.268	1.165	0.7000	9.18	10.0	-8.2	20.0
Anthracene	Ave	1.261	1.186	0.7000	9.40	10.0	-6.0	20.0
Carbazole	Ave	1.050	1.067	0.0100	10.2	10.0	1.6	20.0
Di-n-butyl phthalate	Ave	1.250	1.294	0.0100	10.4	10.0	3.5	20.0
Fluoranthene	Ave	1.280	1.250	0.6000	9.76	10.0	-2.4	20.0
Benzidine	Lin1		0.6653		21.6	20.0	7.8	20.0
Pyrene	Ave	1.153	1.261	0.6000	10.9	10.0	9.4	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5752	0.0100	10.7	10.0	6.9	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7908	0.0100	10.8	10.0	8.2	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3995	0.0100	22.2	20.0	11.1	20.0
Benzo[a]anthracene	Ave	1.234	1.229	0.8000	9.95	10.0	-0.5	20.0
Chrysene	Ave	1.158	1.170	0.7000	10.1	10.0	1.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 | Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.463	0.0100	10.3	10.0	3.1	20.0
Benzo[b]fluoranthene	Ave	1.185	1.138	0.7000	9.60	10.0	-4.0	20.0
Benzo[k]fluoranthene	Ave	1.198	1.248	0.7000	10.4	10.0	4.2	20.0
Benzo[a]pyrene	Ave	1.128	1.152	0.7000	10.2	10.0	2.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.336	0.5000	11.4	10.0	13.9	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.073	0.4000	11.7	10.0	16.7	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.151	0.5000	11.8	10.0	18.2	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.821		10.4	10.0	4.0	20.0
Phenol-d5 (Surr)	Ave	2.475	2.550		10.3	10.0	3.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7618		9.83	10.0	-1.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.234		9.44	10.0	-5.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1295		9.96	10.0	-0.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7745		10.5	10.0	5.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50822003.D Lab Sample ID: MB 240-194053/12-A

Matrix: Solid Date Extracted: 08/20/2015 07:47

Instrument ID: A4HP9 Date Analyzed: 08/22/2015 10:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194053/13-A	50822004.D	08/22/2015 11:15
D-VB-F-14-2	240-54467-4	50822018.D	08/22/2015 17:01
D-VB-F-19-2	240-54467-6	50822019.D	08/22/2015 17:26
D-VB-F-15-2	240-54467-5	50822020.D	08/22/2015 17:51
D-VS-F-4-1	240-54467-1	50822021.D	08/22/2015 18:16
D-VB-F-10-2	240-54467-2	50822022.D	08/22/2015 18:41
D-VB-F-13-2	240-54467-3	50822023.D	08/22/2015 19:05
	240-54203-C-19-H MS	50822026.D	08/22/2015 20:19
	240-54203-C-19-I MSD	50822027.D	08/22/2015 20:44

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194053/12-A

Matrix: Solid | Lab File ID: 50822003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30(g) | Date Analyzed: 08/22/2015 10:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		36-110
4165-62-2	Phenol-d5 (Surr)	77		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	69		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	24		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822004.D

Lab ID: LCS 240-194053/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	529	79	38-110	
Acenaphthylene	667	542	81	40-110	
Anthracene	667	539	81	48-110	
Benzo[a]anthracene	667	595	89	50-110	
Benzo[a]pyrene	667	613	92	44-110	
Benzo[b]fluoranthene	667	596	89	43-110	
Benzo[g,h,i]perylene	667	710	107	51-110	
Benzo[k]fluoranthene	667	640	96	38-105	
Chrysene	667	619	93	50-110	
Dibenz(a,h)anthracene	667	699	105	51-110	
Fluoranthene	667	575	86	51-110	
Fluorene	667	539	81	46-110	
Indeno[1,2,3-cd]pyrene	667	682	102	50-110	
Naphthalene	667	548	82	36-110	
Phenanthrene	667	526	79	49-110	
Pyrene	667	646	97	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822026.D

Lab ID: 240-54203-C-19-H MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	814	8.8	533	64	22-110	
Acenaphthylene	814	130	579	55	24-110	
Anthracene	814	130	658	65	20-110	
Benzo[a]anthracene	814	650	855	26	10-122	
Benzo[a]pyrene	814	640	869	28	10-110	
Benzo[b]fluoranthene	814	800	946	18	12-118	
Benzo[g,h,i]perylene	814	380	799	52	10-117	
Benzo[k]fluoranthene	814	370	760	49	10-121	
Chrysene	814	630	882	31	10-125	
Dibenz(a,h)anthracene	814	110	719	75	14-113	
Fluoranthene	814	1100	1010	-6	10-110	F1
Fluorene	814	26	589	69	23-110	
Indeno[1,2,3-cd]pyrene	814	360	810	55	10-114	
Naphthalene	814	8.0 J	459	55	10-111	
Phenanthrene	814	270	744	58	10-166	
Pyrene	814	960	990	4	10-147	F1

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822027.D

Lab ID: 240-54203-C-19-I MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	817	585	70	9	99	22-110	
Acenaphthylene	817	793	81	31	99	24-110	
Anthracene	817	795	81	19	99	20-110	
Benzo[a]anthracene	817	1540	109	57	99	10-122	
Benzo[a]pyrene	817	1550	111	56	99	10-110	F1
Benzo[b]fluoranthene	817	1810	124	63	99	12-118	F1
Benzo[g,h,i]perylene	817	1230	104	42	99	10-117	
Benzo[k]fluoranthene	817	1160	97	41	99	10-121	
Chrysene	817	1550	112	55	99	10-125	
Dibenz(a,h)anthracene	817	841	89	16	99	14-113	
Fluoranthene	817	1960	110	64	99	10-110	
Fluorene	817	650	76	10	99	23-110	
Indeno[1,2,3-cd]pyrene	817	1190	102	38	99	10-114	
Naphthalene	817	502	60	9	99	10-111	
Phenanthrene	817	1110	103	40	99	10-166	
Pyrene	817	1950	122	65	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F-4-1	240-54467-1	60	69	53	64	37	82
D-VB-F-10-2	240-54467-2	59	65	49	62	51	80
D-VB-F-13-2	240-54467-3	62	72	58	70	37	82
D-VB-F-14-2	240-54467-4	55	58	47	52	45	90
D-VB-F-15-2	240-54467-5	72	79	63	70	53	84
D-VB-F-19-2	240-54467-6	70	74	62	67	41	83
	MB 240-194053/12-A	69	77	69	73	24	93
	LCS 240-194053/13-A	79	80	82	77	42	95
	240-54203-C-19-H MS	54	57	53	57	41	84
	240-54203-C-19-I MSD	57	65	57	62	47	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-194396/2 CCVIS		135257	6.21	533129	7.33	298733	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-194396/2 CCVIS		487262	10.09	505547	12.35	475689	13.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: CCV 240-194396/2 Date Analyzed: 08/22/2015 09:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50822002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135257	6.21	533129	7.33	298733	8.83
UPPER LIMIT		270514	6.71	1066258	7.83	597466	9.33
LOWER LIMIT		67629	5.71	266565	6.83	149367	8.33
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194053/12-A		115019	6.21	436484	7.33	251883	8.83
LCS 240-194053/13-A		120628	6.21	455822	7.33	262856	8.83
240-54467-4	D-VB-F-14-2	126831	6.21	480398	7.33	276285	8.83
240-54467-6	D-VB-F-19-2	134468	6.21	505382	7.33	305107	8.83
240-54467-5	D-VB-F-15-2	131739	6.21	502009	7.33	304478	8.83
240-54467-1	D-VS-F-4-1	144277	6.21	549790	7.33	326731	8.83
240-54467-2	D-VB-F-10-2	138990	6.21	540976	7.33	317759	8.83
240-54467-3	D-VB-F-13-2	141631	6.21	541479	7.33	320636	8.83
240-54203-C-19-H MS		147946	6.21	573602	7.33	334159	8.83
240-54203-C-19-I MSD		138296	6.21	553272	7.33	320380	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: CCV 240-194396/2 Date Analyzed: 08/22/2015 09:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50822002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		487262	10.09	505547	12.35	475689	13.99
UPPER LIMIT		974524	10.59	1011094	12.85	951378	14.49
LOWER LIMIT		243631	9.59	252774	11.85	237845	13.49
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194053/12-A		422637	10.09	444063	12.34	388202	13.98
LCS 240-194053/13-A		446050	10.09	460641	12.34	410624	13.98
240-54467-4	D-VB-F-14-2	470616	10.09	519198	12.35	492581	13.98
240-54467-6	D-VB-F-19-2	521908	10.09	572843	12.35	522934	13.98
240-54467-5	D-VB-F-15-2	501105	10.09	563573	12.35	535663	13.99
240-54467-1	D-VS-F-4-1	544537	10.09	623941	12.34	612570	13.98
240-54467-2	D-VB-F-10-2	544692	10.09	609354	12.34	567194	13.98
240-54467-3	D-VB-F-13-2	542909	10.09	609272	12.35	604197	13.99
240-54203-C-19-H MS		577188	10.09	647367	12.35	632913	13.99
240-54203-C-19-I MSD		547463	10.09	588420	12.35	621592	13.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **SEPTEMBER 11, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54676-1

SAMPLES: 13 / Soil / PAHs

D-DUP05-082415	D-DUP06-082415	D-VB-F1-10-3
D-VB-F1-1-3	D-VB-F1-4-3	D-VB-F1-5-3
D-VB-F-20-2	D-VB-F-23-2	D-VB-F-24-2
D-VB-F-25-2	D-VS-F1-3-2	D-VS-F1-4-2
D-VS-F-3-1		

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54676-1, consists of thirteen (13) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). Two field duplicate pairs are included in this SDG: D-VS-F1-4-2 / D-DUP05-082415 and D-VB-F-23-2 / D-DUP06-082415.

The samples were collected by Tetra Tech on August 24, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP05-082415			D-DUP06-082415			D-VB-F1-10-3			D-VB-F1-1-3		
SDG: 240-54676-1	LAB_ID	240-54676-6			240-54676-13			240-54676-5			240-54676-2		
FRACTION: OS	SAMP_DATE	8/24/2015			8/24/2015			8/24/2015			8/24/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.5			84.1			85.9			84.8		
	DUP_OF	D-VS-F1-4-2			D-VB-F-23-2								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.85	U		0.92	U		17			5.9	J	P
ACENAPHTHYLENE		0.39	U		0.42	U		15			6.3	J	P
ANTHRACENE		0.87	U		0.94	U		60			16		
BENZO(A)ANTHRACENE		0.7	U		0.76	U		170			65		
BENZO(A)PYRENE		0.72	U		0.77	U		210			72		
BENZO(B)FLUORANTHENE		5.5	J	P	0.71	U		290			120		
BENZO(G,H,I)PERYLENE		0.39	U		0.42	U		180			67		
BENZO(K)FLUORANTHENE		0.76	U		0.82	U		110			38		
CHRYSENE		5.2	J	P	1.3	U		300			81		
DIBENZO(A,H)ANTHRACENE		0.74	U		0.8	U		51			17		
FLUORANTHENE		7	J	P	0.66	U		270			120		
FLUORENE		0.59	U		0.64	U		18			8.6		
INDENO(1,2,3-CD)PYRENE		0.39	U		0.42	U		150			56		
NAPHTHALENE		0.92	U		0.99	U		19			14		
PHENANTHRENE		0.82	U		0.88	U		150			52		
PYRENE		6.8	J	P	4.7	J	P	270			110		

PROJ_NO: 07483	NSAMPLE	D-VB-F1-4-3			D-VB-F1-5-3			D-VB-F-20-2			D-VB-F-23-2		
SDG: 240-54676-1	LAB_ID	240-54676-3			240-54676-4			240-54676-8			240-54676-9		
FRACTION: OS	SAMP_DATE	8/24/2015			8/24/2015			8/24/2015			8/24/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.9			84.3			83.4			81.9		
	DUP_OF												

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE	14			0.9	U		0.9	U		0.93	U	
ACENAPHTHYLENE	9.8			0.41	U		0.41	U		0.43	U	
ANTHRACENE	29			7.5	J	P	0.92	U		0.95	U	
BENZO(A)ANTHRACENE	87			4.3	J	P	15			0.77	U	
BENZO(A)PYRENE	82			0.76	U		14			0.78	U	
BENZO(B)FLUORANTHENE	110			5.1	J	P	36			0.72	U	
BENZO(G,H,I)PERYLENE	57			0.41	U		14			0.43	U	
BENZO(K)FLUORANTHENE	58			0.81	U		12			0.83	U	
CHRYSENE	86			5.8	J	P	30			1.3	U	
DIBENZO(A,H)ANTHRACENE	13			0.78	U		0.78	U		0.81	U	
FLUORANTHENE	200			63			23			0.67	U	
FLUORENE	16			0.63	U		0.63	U		0.65	U	
INDENO(1,2,3-CD)PYRENE	51			0.41	U		13			0.43	U	
NAPHTHALENE	10			0.97	U		0.97	U		1	U	
PHENANTHRENE	110			5.8	J	P	10			0.89	U	
PYRENE	190			48			33			0.54	U	

PROJ_NO: 07483	NSAMPLE	D-VB-F-24-2			D-VB-F-25-2			D-VS-F1-3-2			D-VS-F1-4-2		
SDG: 240-54676-1	LAB_ID	240-54676-10			240-54676-11			240-54676-7			240-54676-1		
FRACTION: OS	SAMP_DATE	8/24/2015			8/24/2015			8/24/2015			8/24/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.0			90.1			82.5			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.89	U		16			10			0.85	U	
ACENAPHTHYLENE		0.41	U		0.39	U		0.42	U		0.39	U	
ANTHRACENE		0.91	U		23			9.7			0.87	U	
BENZO(A)ANTHRACENE		0.73	U		75			40			8.2		
BENZO(A)PYRENE		0.75	U		74			44			0.72	U	
BENZO(B)FLUORANTHENE		0.69	U		100			65			15		
BENZO(G,H,I)PERYLENE		0.41	U		53			31			6	J	P
BENZO(K)FLUORANTHENE		0.79	U		39			22			10		
CHRYSENE		1.3	U		79			48			15		
DIBENZO(A,H)ANTHRACENE		0.77	U		13			0.79	U		0.74	U	
FLUORANTHENE		0.64	U		160			63			19		
FLUORENE		0.62	U		9.8			0.63	U		0.59	U	
INDENO(1,2,3-CD)PYRENE		0.41	U		43			26			4.1	J	P
NAPHTHALENE		0.96	U		5.8	J	P	6.1	J	P	5.3	J	P
PHENANTHRENE		0.85	U		95			28			6	J	P
PYRENE		0.51	U		140			61			16		

PROJ_NO: 07483	NSAMPLE	D-VS-F-3-1		
SDG: 240-54676-1	LAB_ID	240-54676-12		
FRACTION: OS	SAMP_DATE	8/24/2015		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	78.1		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ACENAPHTHENE		0.97	U	
ACENAPHTHYLENE		0.45	U	
ANTHRACENE		11		
BENZO(A)ANTHRACENE		75		
BENZO(A)PYRENE		71		
BENZO(B)FLUORANTHENE		110		
BENZO(G,H,I)PERYLENE		54		
BENZO(K)FLUORANTHENE		46		
CHRYSENE		92		
DIBENZO(A,H)ANTHRACENE		13		
FLUORANTHENE		160		
FLUORENE		0.68	U	
INDENO(1,2,3-CD)PYRENE		44		
NAPHTHALENE		1	U	
PHENANTHRENE		44		
PYRENE		140		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-DUP05-082415 | Lab Sample ID: 240-54676-6

Matrix: Solid | Lab File ID: 50828010.D

Analysis Method: 8270D | Date Collected: 08/24/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.32(g) | Date Analyzed: 08/28/2015 12:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	0.87	U	7.5	0.87
56-55-3	Benzo[a]anthracene	0.70	U	7.5	0.70
50-32-8	Benzo[a]pyrene	0.72	U	7.5	0.72
205-99-2	Benzo[b]fluoranthene	5.5	J	7.5	0.66
191-24-2	Benzo[g,h,i]perylene	0.39	U	7.5	0.39
207-08-9	Benzo[k]fluoranthene	0.76	U	7.5	0.76
218-01-9	Chrysene	5.2	J	7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	7.0	J	7.5	0.62
86-73-7	Fluorene	0.59	U	7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	0.39	U	7.5	0.39
91-20-3	Naphthalene	0.92	U	7.5	0.92
85-01-8	Phenanthrene	0.82	U	7.5	0.82
129-00-0	Pyrene	6.8	J	7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-DUP06-082415 | Lab Sample ID: 240-54676-13

Matrix: Solid | Lab File ID: 50828005.D

Analysis Method: 8270D | Date Collected: 08/24/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.57(g) | Date Analyzed: 08/28/2015 10:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.0	0.92
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.94	U	8.0	0.94
56-55-3	Benzo[a]anthracene	0.76	U	8.0	0.76
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	0.71	U	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.0	0.82
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.0	0.80
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.64	U	8.0	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.99	U	8.0	0.99
85-01-8	Phenanthrene	0.88	U	8.0	0.88
129-00-0	Pyrene	4.7	J	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-20-2 | Lab Sample ID: 240-54676-8

Matrix: Solid | Lab File ID: 50828012.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.49(g) | Date Analyzed: 08/28/2015 13:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	0.92	U	7.9	0.92
56-55-3	Benzo[a]anthracene	15		7.9	0.74
50-32-8	Benzo[a]pyrene	14		7.9	0.76
205-99-2	Benzo[b]fluoranthene	36		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	14		7.9	0.41
207-08-9	Benzo[k]fluoranthene	12		7.9	0.80
218-01-9	Chrysene	30		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	23		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	10		7.9	0.86
129-00-0	Pyrene	33		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	73		20-110
367-12-4	2-Fluorophenol (Surr)	80		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-23-2 | Lab Sample ID: 240-54676-9

Matrix: Solid | Lab File ID: 50828006.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:05

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.99(g) | Date Analyzed: 08/28/2015 10:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	0.77	U	8.1	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.1	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.1	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.1	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.1	0.83
218-01-9	Chrysene	1.3	U	8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.1	0.81
206-44-0	Fluoranthene	0.67	U	8.1	0.67
86-73-7	Fluorene	0.65	U	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.1	0.43
91-20-3	Naphthalene	1.0	U	8.1	1.0
85-01-8	Phenanthrene	0.89	U	8.1	0.89
129-00-0	Pyrene	0.54	U	8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	86		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-24-2 | Lab Sample ID: 240-54676-10

Matrix: Solid | Lab File ID: 50828007.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:10

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.27(g) | Date Analyzed: 08/28/2015 11:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	0.69	U	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	0.64	U	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	0.85	U	7.8	0.85
129-00-0	Pyrene	0.51	U	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	91		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	85		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-25-2 | Lab Sample ID: 240-54676-11

Matrix: Solid | Lab File ID: 50828013.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.74(g) | Date Analyzed: 08/28/2015 13:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	16		7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	23		7.5	0.87
56-55-3	Benzo[a]anthracene	75		7.5	0.71
50-32-8	Benzo[a]pyrene	74		7.5	0.72
205-99-2	Benzo[b]fluoranthene	100		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	53		7.5	0.39
207-08-9	Benzo[k]fluoranthene	39		7.5	0.76
218-01-9	Chrysene	79		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	13		7.5	0.74
206-44-0	Fluoranthene	160		7.5	0.62
86-73-7	Fluorene	9.8		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	43		7.5	0.39
91-20-3	Naphthalene	5.8	J	7.5	0.92
85-01-8	Phenanthrene	95		7.5	0.82
129-00-0	Pyrene	140		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	76		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	26		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-1-3 | Lab Sample ID: 240-54676-2

Matrix: Solid | Lab File ID: 50828011.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:10

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.34(g) | Date Analyzed: 08/28/2015 12:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.9	J	7.8	0.89
208-96-8	Acenaphthylene	6.3	J	7.8	0.41
120-12-7	Anthracene	16		7.8	0.91
56-55-3	Benzo[a]anthracene	65		7.8	0.74
50-32-8	Benzo[a]pyrene	72		7.8	0.75
205-99-2	Benzo[b]fluoranthene	120		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	67		7.8	0.41
207-08-9	Benzo[k]fluoranthene	38		7.8	0.79
218-01-9	Chrysene	81		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	17		7.8	0.77
206-44-0	Fluoranthene	120		7.8	0.64
86-73-7	Fluorene	8.6		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	56		7.8	0.41
91-20-3	Naphthalene	14		7.8	0.96
85-01-8	Phenanthrene	52		7.8	0.85
129-00-0	Pyrene	110		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	83		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-10-3 | Lab Sample ID: 240-54676-5

Matrix: Solid | Lab File ID: 50828016.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:25

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.53(g) | Date Analyzed: 08/28/2015 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	17		7.9	0.90
208-96-8	Acenaphthylene	15		7.9	0.41
120-12-7	Anthracene	60		7.9	0.92
56-55-3	Benzo[a]anthracene	170		7.9	0.74
50-32-8	Benzo[a]pyrene	210		7.9	0.76
205-99-2	Benzo[b]fluoranthene	290		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	180		7.9	0.41
207-08-9	Benzo[k]fluoranthene	110		7.9	0.80
218-01-9	Chrysene	300		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	51		7.9	0.78
206-44-0	Fluoranthene	270		7.9	0.65
86-73-7	Fluorene	18		7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	150		7.9	0.41
91-20-3	Naphthalene	19		7.9	0.97
85-01-8	Phenanthrene	150		7.9	0.86
129-00-0	Pyrene	270		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	74		24-110
321-60-8	2-Fluorobiphenyl (Surr)	76		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-4-3 | Lab Sample ID: 240-54676-3

Matrix: Solid | Lab File ID: 50828015.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.07(g) | Date Analyzed: 08/28/2015 14:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	14		7.7	0.88
208-96-8	Acenaphthylene	9.8		7.7	0.41
120-12-7	Anthracene	29		7.7	0.91
56-55-3	Benzo[a]anthracene	87		7.7	0.73
50-32-8	Benzo[a]pyrene	82		7.7	0.74
205-99-2	Benzo[b]fluoranthene	110		7.7	0.69
191-24-2	Benzo[g,h,i]perylene	57		7.7	0.41
207-08-9	Benzo[k]fluoranthene	58		7.7	0.79
218-01-9	Chrysene	86		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	13		7.7	0.77
206-44-0	Fluoranthene	200		7.7	0.64
86-73-7	Fluorene	16		7.7	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	51		7.7	0.41
91-20-3	Naphthalene	10		7.7	0.95
85-01-8	Phenanthrene	110		7.7	0.85
129-00-0	Pyrene	190		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	78		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	58		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-5-3 | Lab Sample ID: 240-54676-4

Matrix: Solid | Lab File ID: 50828009.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:20

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.05(g) | Date Analyzed: 08/28/2015 11:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	7.5	J	7.9	0.92
56-55-3	Benzo[a]anthracene	4.3	J	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	5.1	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.9	0.41
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	5.8	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	63		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	5.8	J	7.9	0.86
129-00-0	Pyrene	48		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		36-110
4165-62-2	Phenol-d5 (Surr)	90		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	75		20-110
367-12-4	2-Fluorophenol (Surr)	86		24-110
321-60-8	2-Fluorobiphenyl (Surr)	75		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F-3-1 | Lab Sample ID: 240-54676-12

Matrix: Solid | Lab File ID: 50828014.D

Analysis Method: 8270D | Date Collected: 08/24/2015 11:30

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.10(g) | Date Analyzed: 08/28/2015 13:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.97	U	8.5	0.97
208-96-8	Acenaphthylene	0.45	U	8.5	0.45
120-12-7	Anthracene	11		8.5	1.0
56-55-3	Benzo[a]anthracene	75		8.5	0.80
50-32-8	Benzo[a]pyrene	71		8.5	0.82
205-99-2	Benzo[b]fluoranthene	110		8.5	0.75
191-24-2	Benzo[g,h,i]perylene	54		8.5	0.45
207-08-9	Benzo[k]fluoranthene	46		8.5	0.87
218-01-9	Chrysene	92		8.5	1.4
53-70-3	Dibenz(a,h)anthracene	13		8.5	0.84
206-44-0	Fluoranthene	160		8.5	0.70
86-73-7	Fluorene	0.68	U	8.5	0.68
193-39-5	Indeno[1,2,3-cd]pyrene	44		8.5	0.45
91-20-3	Naphthalene	1.0	U	8.5	1.0
85-01-8	Phenanthrene	44		8.5	0.93
129-00-0	Pyrene	140		8.5	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54676-7

Matrix: Solid | Lab File ID: 50828017.D

Analysis Method: 8270D | Date Collected: 08/24/2015 14:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.49(g) | Date Analyzed: 08/28/2015 15:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	9.7		8.0	0.93
56-55-3	Benzo[a]anthracene	40		8.0	0.75
50-32-8	Benzo[a]pyrene	44		8.0	0.76
205-99-2	Benzo[b]fluoranthene	65		8.0	0.70
191-24-2	Benzo[g,h,i]perylene	31		8.0	0.42
207-08-9	Benzo[k]fluoranthene	22		8.0	0.81
218-01-9	Chrysene	48		8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	63		8.0	0.66
86-73-7	Fluorene	0.63	U	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	26		8.0	0.42
91-20-3	Naphthalene	6.1	J	8.0	0.98
85-01-8	Phenanthrene	28		8.0	0.87
129-00-0	Pyrene	61		8.0	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F1-4-2 | Lab Sample ID: 240-54676-1

Matrix: Solid | Lab File ID: 50828008.D

Analysis Method: 8270D | Date Collected: 08/24/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.68(g) | Date Analyzed: 08/28/2015 11:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	0.87	U	7.5	0.87
56-55-3	Benzo[a]anthracene	8.2		7.5	0.70
50-32-8	Benzo[a]pyrene	0.72	U	7.5	0.72
205-99-2	Benzo[b]fluoranthene	15		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	6.0	J	7.5	0.39
207-08-9	Benzo[k]fluoranthene	10		7.5	0.76
218-01-9	Chrysene	15		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	19		7.5	0.62
86-73-7	Fluorene	0.59	U	7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	4.1	J	7.5	0.39
91-20-3	Naphthalene	5.3	J	7.5	0.92
85-01-8	Phenanthrene	6.0	J	7.5	0.82
129-00-0	Pyrene	16		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	97		36-110
4165-62-2	Phenol-d5 (Surr)	80		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	67		20-110
367-12-4	2-Fluorophenol (Surr)	74		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	30		10-110

APPENDIX C

SUPPORT DOCUMENTATION

06/C16

Chain of Custody Record

#33 016179

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FEDEX	1 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week 30 DAYS ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
PO # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
D-VS-F1-4-2	8/24/15	1015	C	SOIL	1			K	
D-VB-F1-1-3		0910						K	
D-VB-F1-4-3		0915						K	
D-VB-F1-5-3		0920						K	
D-VB-F1-10-3		0925						K	
D-DUP05-082415		—						K	
D-VS-F1-3-2		1400						K	
D-VB-F-20-2		1200						K	
D-VB-F-23-2		1205						K	
D-VB-F-24-2		1210						K	
D-VB-F-25-2		1215						K	
~~D-VB~~ D-VS-F-3-1		1130						K	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TETRA TECH	8/24/15 1630		TestAmerica	8/24/15 1635
Relinquished by:	TestAmerica	8/24/15 1720	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA Canton	8-25-15 9:30 am

Chain of Custody Record #33

016178

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FEDEX	2 of 2 COCs
Address: 20251 CENTURY BLVD. STE. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week 3 DAYS ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: MAL SOIL REMEDY				Job / SDG No.:
Site: MAL BLOCK D				
P O # 112IL07487				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	PAH 8270D	Sample Specific Notes:
D-OVB06-082415	8/24/15	—	C	SOIL	1			X	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MAL SOIL REMEDY VERIFICATION SAMPLES, BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by:	Company: Tetra Tech	Date/Time: 8/24/15 1630	Received by:	Company: TestAmerica	Date/Time: 8/24/15 1635
Relinquished by:	Company: TestAmerica	Date/Time: 8/24/15 1720	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA Canton	Date/Time: 8-25-15 9:30 am

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 5M6X6
Canton Facility

Client Tetra Tech Site Name MRC Block D Cooler unpacked by: Jenny Stillee
Cooler Received on 8-25-15 Opened on 8-25-15
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other
Receipt After-hours: Drop-off Date/Time Storage Location
TestAmerica Cooler # No# Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.6 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~ ☐ See Multiple Cooler Form
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes No

Contacted PM Date by via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION
Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION
Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54676-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % soilds value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/25/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12) and D-DUP06-082415 (240-54676-13) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/26/2015 and analyzed on 08/28/2015.

The continuing calibration verification (CCV) for analytical batch 195245 had an Rf for the acid surrogate 2,4,6-tribromophenol below method recommendations. The samples associated with this CCV, D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12), D-DUP06-082415 (240-54676-13), (LCS 240-194855/24-A) and (MB 240-194855/23-A), have only BN analytes, therefore, no corrective action was required.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12) and D-DUP06-082415 (240-54676-13) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/25/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54676-1	D-VS-F1-4-2	Solid	08/24/2015 1015	08/25/2015 0930
240-54676-2	D-VB-F1-1-3	Solid	08/24/2015 0910	08/25/2015 0930
240-54676-3	D-VB-F1-4-3	Solid	08/24/2015 0915	08/25/2015 0930
240-54676-4	D-VB-F1-5-3	Solid	08/24/2015 0920	08/25/2015 0930
240-54676-5	D-VB-F1-10-3	Solid	08/24/2015 0925	08/25/2015 0930
240-54676-6	D-DUP05-082415	Solid	08/24/2015 0000	08/25/2015 0930
240-54676-7	D-VS-F1-3-2	Solid	08/24/2015 1400	08/25/2015 0930
240-54676-8	D-VB-F-20-2	Solid	08/24/2015 1200	08/25/2015 0930
240-54676-9	D-VB-F-23-2	Solid	08/24/2015 1205	08/25/2015 0930
240-54676-10	D-VB-F-24-2	Solid	08/24/2015 1210	08/25/2015 0930
240-54676-11	D-VB-F-25-2	Solid	08/24/2015 1215	08/25/2015 0930
240-54676-12	D-VS-F-3-1	Solid	08/24/2015 1130	08/25/2015 0930
240-54676-13	D-DUP06-082415	Solid	08/24/2015 0000	08/25/2015 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FIELD DUPLICATE PRECISION							
ANALYTE	**D-VS-F1-4-2**	**QUAL**	**D-DUP05-082415**	**QUAL**	**RPD**	**DIFFERENCE**	**RL**
BENZO(A)ANTHRACENE	8.2		0.7	U	~~168.54~~	7.50 ✓	7.5
BENZO(B)FLUORANTHENE	15		5.5	J	~~92.68~~	9.50 ✓	7.5
BENZO(G,H,I)PERYLENE	6	J	0.39	U	~~175.59~~	5.61 ✓	7.5
BENZO(K)FLUORANTHENE	10		0.76	U	~~171.75~~	9.24 ✓	7.5
CHRYSENE	15		5.2	J	~~97.03~~	9.80 ✓	7.5
FLUORANTHENE	19		7	J	~~92.31~~	12.00 ✓	7.5
INDENO(1,2,3-CD)PYRENE	4.1	J	0.39	U	~~165.26~~	3.71 ✓	7.5
NAPHTHALENE	5.3	J	0.92	U	~~140.84~~	4.38 ✓	7.5
PHENANTHRENE	6	J	0.82	U	~~151.91~~	5.18 ✓	7.5
PYRENE	16		6.8	J	~~80.70~~	9.20 ✓	7.5

FIELD DUPLICATE PRECISION							
ANALYTE	**D-VB-F-23-2**	**QUAL**	**D-DUP06-082415**	**QUAL**	**RPD**	**DIFFERENCE**	**RL**
PYRENE	0.54	U	4.7	J	~~158.78~~	4.16 ✓	8.1

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50828001.D DFTPP Injection Date: 08/28/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:25

Analysis Batch No.: 195245

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.2	
70	Less than 2.0% of mass 69	0.5	(0.6)1
127	25.0 - 75.0% of mass 198	55.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.9	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	7.8	
442	40.0 - 110.0% of mass 198	45.9	
443	15.0 - 24.0% of mass 442	8.7	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-195245/2	50828002.D	08/28/2015	07:46
	MB 240-194855/23-A	50828003.D	08/28/2015	08:35
	LCS 240-194855/24-A	50828004.D	08/28/2015	08:59
D-DUP06-082415	240-54676-13	50828005.D	08/28/2015	10:11
D-VB-F-23-2	240-54676-9	50828006.D	08/28/2015	10:36
D-VB-F-24-2	240-54676-10	50828007.D	08/28/2015	11:00
D-VS-F1-4-2	240-54676-1	50828008.D	08/28/2015	11:24
D-VB-F1-5-3	240-54676-4	50828009.D	08/28/2015	11:49
D-DUP05-082415	240-54676-6	50828010.D	08/28/2015	12:13
D-VB-F1-1-3	240-54676-2	50828011.D	08/28/2015	12:37
D-VB-F-20-2	240-54676-8	50828012.D	08/28/2015	13:01
D-VB-F-25-2	240-54676-11	50828013.D	08/28/2015	13:26
D-VS-F-3-1	240-54676-12	50828014.D	08/28/2015	13:50
D-VB-F1-4-3	240-54676-3	50828015.D	08/28/2015	14:14
D-VB-F1-10-3	240-54676-5	50828016.D	08/28/2015	14:38
D-VS-F1-3-2	240-54676-7	50828017.D	08/28/2015	15:03

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID (1): CCV 240-195245/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/28/2015 07:46

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.90	100.0
Phenol-d5 (Surr)	5.84	100.0
Nitrobenzene-d5 (Surr)	6.65	100.0
Naphthalene	7.31	100.0
2-Fluorobiphenyl (Surr)	8.19	100.0
Acenaphthylene	8.67	100.0
Acenaphthene	8.82	100.0
Fluorene	9.25	100.0
2,4,6-Tribromophenol (Surr)	9.46	100.0
Phenanthrene	10.07	100.0
Anthracene	10.11	100.0
Fluoranthene	11.08	100.0
Pyrene	11.28	100.0
Terphenyl-d14 (Surr)	11.37	100.0
Benzo[a]anthracene	12.29	100.0
Chrysene	12.32	100.0
Benzo[b]fluoranthene	13.41	41.10
Benzo[k]fluoranthene	13.44	100.0
Benzo[a]pyrene	13.83	100.0
Indeno[1,2,3-cd]pyrene	15.64	100.0
Dibenz(a,h)anthracene	15.65	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 | Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.693	2.052		12.1	10.0	21.2*	20.0
Pyridine	Ave	2.930	3.337		11.4	10.0	13.9	20.0
Benzaldehyde	Ave	2.328	2.329	0.0100	20.0	20.0	0.0	20.0
Phenol	Ave	2.775	3.020	0.8000	10.9	10.0	8.8	20.0
Aniline	Ave	3.583	3.722		10.4	10.0	3.9	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.610	0.7000	10.4	10.0	4.1	20.0
2-Chlorophenol	Ave	1.523	1.470	0.8000	9.65	10.0	-3.5	20.0
n-Decane	Ave	1.999	2.285		11.4	10.0	14.3	20.0
1,3-Dichlorobenzene	Ave	1.630	1.549		9.50	10.0	-5.0	20.0
1,4-Dichlorobenzene	Ave	1.666	1.608		9.65	10.0	-3.5	20.0
Benzyl alcohol	Ave	1.232	1.128		9.16	10.0	-8.4	20.0
1,2-Dichlorobenzene	Ave	1.580	1.493		9.45	10.0	-5.5	20.0
2-Methylphenol	Ave	1.706	1.608	0.7000	9.42	10.0	-5.8	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.736		9.21	10.0	-7.9	20.0
Indene	Ave	3.185	2.943		18.5	20.0	-7.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	2.055	0.5000	10.4	10.0	3.8	20.0
Acetophenone	Ave	2.817	2.625	0.0100	9.32	10.0	-6.8	20.0
3 & 4 Methylphenol	Ave	1.799	1.694		9.42	10.0	-5.8	20.0
Hexachloroethane	Ave	0.8166	0.7566	0.3000	9.27	10.0	-7.3	20.0
Nitrobenzene	Ave	0.7749	0.7918	0.2000	10.2	10.0	2.2	20.0
Isophorone	Ave	1.226	1.248	0.4000	10.2	10.0	1.8	20.0
2-Nitrophenol	Ave	0.1796	0.1777	0.1000	9.90	10.0	-1.0	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4612	0.2000	9.43	10.0	-5.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.7060	0.3000	10.4	10.0	4.4	20.0
Benzoic acid	Lin1		0.1312		11.9	20.0	-40.4*	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2742	0.2000	8.96	10.0	-10.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.2973		9.14	10.0	-8.6	20.0
Naphthalene	Ave	1.144	1.045	0.7000	9.14	10.0	-8.6	20.0
4-Chloroaniline	Ave	0.4932	0.4550	0.0100	9.23	10.0	-7.7	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2698		9.09	10.0	-9.1	20.0
Hexachlorobutadiene	Ave	0.2017	0.1672	0.0100	8.29	10.0	-17.1	20.0
Caprolactam	Ave	0.1384	0.1443	0.0100	20.9	20.0	4.3	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.3854	0.2000	9.21	10.0	-7.9	20.0
2-Methylnaphthalene	Ave	0.7006	0.6381	0.4000	9.11	10.0	-8.9	20.0
1-Methylnaphthalene	Ave	0.6168	0.5532		8.97	10.0	-10.3	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.1841	0.0500	5.55	10.0	-44.5*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5160	0.0100	9.07	10.0	-9.3	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3404	0.2000	9.09	10.0	-9.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3438	0.2000	8.72	10.0	-12.8	20.0
1,1'-Biphenyl	Ave	1.483	1.352	0.0100	9.12	10.0	-8.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 | Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.171	1.080	0.8000	9.23	10.0	-7.7	20.0
2-Nitroaniline	Ave	0.6109	0.6635	0.0100	10.9	10.0	8.6	20.0
Dimethyl phthalate	Ave	1.267	1.177	0.0100	9.29	10.0	-7.1	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2199		11.1	10.0	11.5	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2938		10.5	10.0	4.8	20.0
Acenaphthylene	Ave	1.869	1.721	0.9000	9.21	10.0	-7.9	20.0
3-Nitroaniline	Ave	0.3056	0.3060	0.0100	10.0	10.0	0.1	20.0
2,4-Dinitrophenol	Lin1		0.1164	0.0100	16.2	20.0	-19.1	20.0
Acenaphthene	Ave	1.201	1.064	0.9000	8.87	10.0	-11.3	20.0
4-Nitrophenol	Ave	0.2548	0.2414		18.9	20.0	-5.3	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3756	0.2000	10.0	10.0	0.4	20.0
Dibenzofuran	Ave	1.648	1.481	0.8000	8.98	10.0	-10.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.2559	0.0100	8.13	10.0	-18.7	20.0
Diethyl phthalate	Ave	1.245	1.102	0.0100	8.85	10.0	-11.5	20.0
Hexadecane	Ave	1.016	0.9935		9.78	10.0	-2.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5504	0.4000	8.97	10.0	-10.3	20.0
4-Nitroaniline	Ave	0.2967	0.3280	0.0100	11.1	10.0	10.5	20.0
Fluorene	Ave	1.379	1.188	0.9000	8.62	10.0	-13.8	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1244	0.0100	20.3	20.0	1.3	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5102	0.0100	17.9	20.0	-10.3	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.580		10.0	10.0	0.0	20.0
Azobenzene	Ave	1.580	1.583		10.0	10.0	0.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.1874	0.1000	8.77	10.0	-12.3	20.0
Hexachlorobenzene	Ave	0.2114	0.1775	0.1000	8.40	10.0	-16.0	20.0
Atrazine	Ave	0.2132	0.2115	0.0100	19.8	20.0	-0.8	20.0
n-Octadecane	Ave	0.6421	0.6731		10.5	10.0	4.8	20.0
Pentachlorophenol	Ave	0.1444	0.0950	0.0500	13.2	20.0	-34.2*	20.0
Phenanthrene	Ave	1.268	1.135	0.7000	8.95	10.0	-10.5	20.0
Anthracene	Ave	1.261	1.145	0.7000	9.08	10.0	-9.2	20.0
Carbazole	Ave	1.050	1.055	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.250	1.291	0.0100	10.3	10.0	3.3	20.0
Fluoranthene	Ave	1.280	1.213	0.6000	9.47	10.0	-5.3	20.0
Benzidine	Lin1		0.7251		23.4	20.0	17.1	20.0
Pyrene	Ave	1.153	1.210	0.6000	10.5	10.0	4.9	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5793	0.0100	10.8	10.0	7.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7835	0.0100	10.7	10.0	7.2	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3886	0.0100	21.6	20.0	8.1	20.0
Benzo[a]anthracene	Ave	1.234	1.177	0.8000	9.53	10.0	-4.7	20.0
Chrysene	Ave	1.158	1.123	0.7000	9.70	10.0	-3.0	20.0
Di-n-octyl phthalate	Ave	1.419	1.603	0.0100	11.3	10.0	13.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.185	1.169	0.7000	9.87	10.0	-1.3	20.0
Benzo[k]fluoranthene	Ave	1.198	1.281	0.7000	10.7	10.0	6.9	20.0
Benzo[a]pyrene	Ave	1.128	1.152	0.7000	10.2	10.0	2.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.239	0.5000	10.6	10.0	5.6	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.011	0.4000	11.0	10.0	10.0	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.028	0.5000	10.6	10.0	5.5	20.0
1,4-Dioxane	Ave	0.9857			0.000490	10.0		
2-Fluorophenol (Surr)	Ave	1.750	1.823		10.4	10.0	4.1	20.0
Phenol-d5 (Surr)	Ave	2.475	2.547		10.3	10.0	2.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7673		9.91	10.0	-0.9	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.178		9.02	10.0	-9.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.0953		7.33	10.0	-26.7*	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7349		9.98	10.0	-0.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50828003.D Lab Sample ID: MB 240-194855/23-A

Matrix: Solid Date Extracted: 08/26/2015 08:52

Instrument ID: A4HP9 Date Analyzed: 08/28/2015 08:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194855/24-A	50828004.D	08/28/2015 08:59
D-DUP06-082415	240-54676-13	50828005.D	08/28/2015 10:11
D-VB-F-23-2	240-54676-9	50828006.D	08/28/2015 10:36
D-VB-F-24-2	240-54676-10	50828007.D	08/28/2015 11:00
D-VS-F1-4-2	240-54676-1	50828008.D	08/28/2015 11:24
D-VB-F1-5-3	240-54676-4	50828009.D	08/28/2015 11:49
D-DUP05-082415	240-54676-6	50828010.D	08/28/2015 12:13
D-VB-F1-1-3	240-54676-2	50828011.D	08/28/2015 12:37
D-VB-F-20-2	240-54676-8	50828012.D	08/28/2015 13:01
D-VB-F-25-2	240-54676-11	50828013.D	08/28/2015 13:26
D-VS-F-3-1	240-54676-12	50828014.D	08/28/2015 13:50
D-VB-F1-4-3	240-54676-3	50828015.D	08/28/2015 14:14
D-VB-F1-10-3	240-54676-5	50828016.D	08/28/2015 14:38
D-VS-F1-3-2	240-54676-7	50828017.D	08/28/2015 15:03

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194855/23-A

Matrix: Solid | Lab File ID: 50828003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30(g) | Date Analyzed: 08/28/2015 08:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	99		36-110
4165-62-2	Phenol-d5 (Surr)	90		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50828004.D

Lab ID: LCS 240-194855/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	515	77	38-110	
Acenaphthylene	667	535	80	40-110	
Anthracene	667	538	81	48-110	
Benzo[a]anthracene	667	544	82	50-110	
Benzo[a]pyrene	667	578	87	44-110	
Benzo[b]fluoranthene	667	573	86	43-110	
Benzo[g,h,i]perylene	667	610	92	51-110	
Benzo[k]fluoranthene	667	619	93	38-105	
Chrysene	667	566	85	50-110	
Dibenz(a,h)anthracene	667	632	95	51-110	
Fluoranthene	667	561	84	51-110	
Fluorene	667	509	76	46-110	
Indeno[1,2,3-cd]pyrene	667	610	91	50-110	
Naphthalene	667	522	78	36-110	
Phenanthrene	667	534	80	49-110	
Pyrene	667	597	90	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F1-4-2	240-54676-1	74	80	67	73	30	97
D-VB-F1-1-3	240-54676-2	81	83	74	73	15	82
D-VB-F1-4-3	240-54676-3	78	85	69	74	58	91
D-VB-F1-5-3	240-54676-4	86	90	75	75	41	88
D-VB-F1-10-3	240-54676-5	74	82	64	76	38	91
D-DUP05-082415	240-54676-6	75	75	66	69	23	91
D-VS-F1-3-2	240-54676-7	75	82	65	70	46	86
D-VB-F-20-2	240-54676-8	80	85	73	73	22	89
D-VB-F-23-2	240-54676-9	82	86	70	71	44	96
D-VB-F-24-2	240-54676-10	85	91	79	80	40	96
D-VB-F-25-2	240-54676-11	83	85	72	76	26	91
D-VS-F-3-1	240-54676-12	81	79	69	74	36	92
D-DUP06-082415	240-54676-13	75	84	64	74	37	92
	MB 240-194855/23-A	83	90	79	80	32	99
	LCS 240-194855/24-A	86	89	81	75	56	90

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-195245/2 CCVIS		146011	6.16	578820	7.29	319166	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-195245/2 CCVIS		514024	10.05	528635	12.30	451296	13.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: CCV 240-195245/2 Date Analyzed: 08/28/2015 07:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50828002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		146011	6.16	578820	7.29	319166	8.79
UPPER LIMIT		292022	6.66	1157640	7.79	638332	9.29
LOWER LIMIT		73006	5.66	289410	6.79	159583	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194855/23-A		123267	6.17	479781	7.29	265586	8.79
LCS 240-194855/24-A		120304	6.17	485464	7.29	268310	8.79
240-54676-13	D-DUP06-082415	120981	6.17	505988	7.29	274379	8.79
240-54676-9	D-VB-F-23-2	120079	6.17	500408	7.29	273321	8.79
240-54676-10	D-VB-F-24-2	115278	6.17	466209	7.29	255697	8.79
240-54676-1	D-VS-F1-4-2	121433	6.16	476475	7.29	265252	8.79
240-54676-4	D-VB-F1-5-3	124072	6.17	511501	7.29	288766	8.79
240-54676-6	D-DUP05-082415	117267	6.16	475174	7.29	260811	8.79
240-54676-2	D-VB-F1-1-3	128060	6.17	508781	7.29	287048	8.79
240-54676-8	D-VB-F-20-2	128909	6.17	497452	7.29	284616	8.79
240-54676-11	D-VB-F-25-2	124735	6.17	495822	7.29	278659	8.79
240-54676-12	D-VS-F-3-1	134122	6.17	532177	7.29	296348	8.79
240-54676-3	D-VB-F1-4-3	137157	6.17	556585	7.29	315518	8.79
240-54676-5	D-VB-F1-10-3	142591	6.17	556878	7.29	316402	8.79
240-54676-7	D-VS-F1-3-2	145403	6.17	570650	7.29	332525	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: CCV 240-195245/2 Date Analyzed: 08/28/2015 07:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50828002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		514024	10.05	528635	12.30	451296	13.90
UPPER LIMIT		1028048	10.55	1057270	12.80	902592	14.40
LOWER LIMIT		257012	9.55	264318	11.80	225648	13.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194855/23-A		427363	10.05	454807	12.30	368357	13.90
LCS 240-194855/24-A		442589	10.05	481637	12.29	400900	13.90
240-54676-13	D-DUP06-082415	462688	10.05	485435	12.30	384284	13.90
240-54676-9	D-VB-F-23-2	454269	10.05	480952	12.30	391633	13.90
240-54676-10	D-VB-F-24-2	417508	10.05	429768	12.29	362776	13.90
240-54676-1	D-VS-F1-4-2	420181	10.05	436755	12.29	371035	13.90
240-54676-4	D-VB-F1-5-3	469855	10.05	495792	12.29	401146	13.90
240-54676-6	D-DUP05-082415	424923	10.05	429171	12.30	371394	13.90
240-54676-2	D-VB-F1-1-3	475049	10.05	518073	12.29	457145	13.91
240-54676-8	D-VB-F-20-2	467463	10.05	498732	12.29	446232	13.90
240-54676-11	D-VB-F-25-2	462960	10.05	505699	12.29	438615	13.90
240-54676-12	D-VS-F-3-1	491239	10.05	529017	12.30	460188	13.90
240-54676-3	D-VB-F1-4-3	520310	10.05	568705	12.30	503755	13.90
240-54676-5	D-VB-F1-10-3	525919	10.05	577379	12.30	542613	13.90
240-54676-7	D-VS-F1-3-2	536498	10.05	592441	12.30	527894	13.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

APPENDIX G—POST-EXCAVATION RESIDUAL-RISK ANALYSIS

TECHNICAL MEMORANDUM
POST-EXCAVATION RESIDUAL RISK ANALYSIS FOR TAX BLOCK D SOILS
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND
JUNE 2016

1.0 Introduction

This memorandum provides the results of the residual risk analysis (RRA) for the concentrations of chemicals of potential concern (COPC) remaining in soils after the implementation of the remedial action (soil excavation) in Tax Block (Block) D. The remedial action was completed in March 2016 in accordance with the remedial action plan (RAP) prepared for Block D (Tetra Tech, 2013), as amended. The soil excavation was necessary because risk estimates for Block D presented in the *Human Health Risk Assessment (HHRA) for Blocks D, E, F, G, and H Soils, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland* (Tetra Tech, 2012) for a hypothetical industrial worker population exceeded risk management benchmarks established by the Maryland Department of the Environment (MDE). The MDE cumulative cancer risk management benchmark is 1×10^{-5} (i.e., a one in one-hundred thousand excess chance of developing cancer). The MDE cumulative non-cancer risk benchmark is a hazard index of 1. Potential adverse non-carcinogenic health effects may occur if the hazard index (calculated on a target organ specific basis) exceeds one. The overall objective of this post-excavation RRA is to demonstrate that with the excavation of soils from the removal areas, the final exposure point concentrations (EPC) for the COPC from all remaining soils in Block D result in industrial worker cancer and non-cancer risk estimates less than MDE risk management benchmarks, thus achieving the Block D Remedial Action Objective (RAO) presented in the Block D RAP, as amended:

Soil remedial action objective—	*Reduce site-related chemicals of concern in Block D soils to not exceed a cumulative human health cancer-risk limit of 1×10^{-5} for industrial workers via ingestion, dermal contact, and inhalation.*

The 2012 HHRA indicated that the group of polycyclic aromatic hydrocarbons (PAHs) typically evaluated as benzo(a)pyrene equivalents (BaPEq) were the predominant chemicals of concern (COC) for an industrial worker hypothetically exposed to soils in Block D. The entire Block D

was evaluated as one exposure unit in the 2012 HHRA. Because a portion of Block D, often referred to as the panhandle, is being considered for recreational land use, the RAP evaluated the "main" portion of Block D (i.e., Block D excluding the panhandle portion that extends to the southeast) separately from the "panhandle" portion of Block D. Only the "main" portion of Block D is addressed in this document. The panhandle portion of Block D is evaluated in a separate document. The RAP and associated RRA recommended that surface soils and subsurface soils at locations listed in Table A be excavated so that risk estimates for an industrial worker exposed to Block D surface soils and subsurface soils would not exceed the MDE risk management benchmarks. Figure 1 depicts the soil sampling locations prior to excavation activities. Surface soil is defined as soils 0-2 feet below ground surface (bgs) and subsurface soil is defined as soils 2-4 feet bgs (the approximate depth of the water table). The RAP and associated RRA also present the remedial goals established for BaPEq and the rationale for each location (and depth) recommended for excavation.

The following sections briefly discuss the post-excavation (i.e., confirmation) soils data and present the results of the final Block D risk assessment of the post-excavation soils dataset for Block D (i.e., the updated HHRA). The post-excavation surface soils and subsurface soils datasets are defined as all data for the sidewall confirmation soil samples collected in 2015 as well as historical surface soil and subsurface soil data for all locations not excavated. Note, in addition to the sampling locations identified for removal in the RRA prepared in support of the RAP, a few sampling locations were also excavated during construction due to their close proximity to the original samples targeted for removal. The excavated samples and associated concentrations are in Table B. The surface soil and subsurface soil data for locations listed in Table B [i.e., the excavated soils data] have been replaced with chemical concentrations for the replacement backfill soil in the post-excavation soils dataset. The reader is referred to Section 4 of the Block D construction completion report for detailed description of the soil excavation and post-excavation soil sampling conducted in Block D. Revised Tables B-1 and B-2 in Attachment A provide the post-excavation BaPEq concentrations and the final 95 percent upper confidence limit (UCL) on the arithmetic mean for the dataset.

2.0 Analytical Results for Post-Excavation Soil Samples

Post-excavation soils samples were collected from Block D sub-areas A, B, C, D, E, F, and F1and analyzed for PAHs using United States Environmental Protection Agency (USEPA) SW-846 Method 8270D. Four sidewall samples were collected from each sub-area. Three floor (or base confirmation) samples were collected from sub-areas A and B; four floor samples were collected from subarea C; two floor samples were collected from sub-area D; six floor samples were collected from sub-area E; twenty-five floor samples were collected from sub-area F; and ten floor samples were collected from sub-area F1. The sidewall samples were composites of soils from the sidewalls of the excavation. The base confirmation samples were grab samples from the floor of the excavation. The floor samples were collected for informational purposes only, were not used to determine whether additional vertical excavation would be required, and were not used to calculate risks. Sample locations are depicted on Figures 2 and 3 and listed in Table C. All data collected were validated in accordance with USEPA Region 3 protocols and found acceptable for quantitative use in the HHRA (Attachment B).

Analytical results for the post-excavation samples are in Tables D through J for Block D sub-areas A, B, C, D, E, F, and F1. None of the calculated BaPEq concentrations in the sidewall samples exceed the remedial goal established in the RAP for an industrial worker exposed to soils (2,900 micrograms per kilogram [µg/kg], representing the 1×10^{-5} cancer risk level). The BaPEq concentration (4,100 µg/kg) in one floor sample in sub-area F (not used in the RRA) exceeded the remedial goal. Base confirmation samples were collected for informational purposes only, were not used to determine whether additional vertical excavation would be required, and were not used to calculate risks. Benzo(a)pyrene and dibenzo(a,h)anthracene were the only target analyte PAHs detected in the sidewall samples at concentrations exceeding the USEPA industrial regional screening level (RSL) representing the 1×10^{-6} cancer risk level. BaPEq concentrations in sidewall samples from sub-areas A, E, and F1 exceeded the industrial RSL, and BaPEq concentrations from all sub-areas exceeded the residential RSL.

3.0 Risk Assessment of Block D Post-Excavation Soils Dataset

The risk assessment of the post-excavation soils dataset for Block D (excluding the panhandle) was conducted using the USEPA and MDE methodologies presented in the 2012 HHRA, updated as necessary based on recent USEPA risk assessment guidance documents. The reader is referred to the 2012 HHRA for a detailed explanation of the risk assessment process and all equations used to calculate exposure dose and risk.

The updated HHRA results are presented in USEPA Risk Assessment for Superfund Guidance (RAGS) Part D format tables in Attachment C. The chemicals highlighted in Tables K and L were selected as COPC because their maximum detected concentration exceeded current RSL(s) for residential exposures to soils. The exposure assessment assumptions (e.g., days per year exposed) are those presented in the Office of Solid Waste and Emergency Response (OSWER) Directive 9200.1-120, *Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors* (USEPA, 2014) or other USEPA references specified in Attachment D. The EPCs were calculated using the current valid version of the USEPA's ProUCL software (Version 5.0.00). ProUCL outputs are included in Attachment E. The toxicity criteria (e.g., cancer slope factors, reference doses) used to estimate cancer and non-cancer risks are those in the May 2016 RSL table published by USEPA.

The receptor of concern for this RRA is an industrial worker, which is consistent with the current site land use. In general, industrial workers are potentially exposed to contaminants in the top two feet of soil (0-2 feet bgs) as they are not typically involved with excavation activities like construction or utility workers that would result in contact with deeper subsurface soils. Therefore, soil remediation was primarily focused on reducing contaminant concentrations within the top two feet of soil to acceptable risk-based levels. Once contamination was excavated and removed from the top two feet of soil, only the sidewall samples were added to the surface soil data set in the final risk assessment as those samples represent soil within the top two feet. Base confirmation samples were not used as they represent deeper soil that industrial workers would not contact under typical conditions. As previous discussed, base confirmation samples were not used in this RRA.

In Block D, however, soil excavation and removal went deeper than two feet at a few locations in sub-area F1 to address potential BaPEq "hot spots". Per the RRA prepared in support of the RAP,

the 95% UCL for Block D subsurface soil samples did not exceed the remedial goal (RG) for BaPEq (2,900 µg/kg). However, BaPEq in the shallow subsurface (3 feet bgs) at two individual sub-area F1 locations only (SB-774 [24,000 µg/kg] and D-SB-1365 [5,800 µg/kg]) exceeded the RG and, importantly, the cancer risk estimate for the BaPEq reported for the shallow subsurface soil sample from SB-774 approaches 1×10^{-4} (the MDE definition of a "hot spot"). The cancer risk estimate for the surface soil sample from SB-774 (11,000 µg/kg) approaches 5×10^{-5}. D-SB-1365 is located in close proximity to SB-774. While the primary objective of the soils remedial action was to assure that risks to industrial workers exposed to surface soils (defined as the 0-2 foot depth interval) would not exceed MDE risk management benchmarks, the RRA in support of the RAP recommended shallow subsurface soils at SB-774 and D-SB-1365 also be excavated because the elevated BaPEq concentrations were just below the surface soil interval, the locations were in close proximity to one another, and because the BaPEq concentrations for SB-774 (both surface and subsurface) may represent a hot spot. These locations were also in the general vicinity of the location D-SB-1299 (surface soil concentration = 83,000 µg/kg) (Sub-Area F). Consequently, shallow subsurface soils at these locations and associated surrounding locations were excavated to a depth of 3 feet bgs (sub-area F1). None of post excavation confirmation samples (base or sidewall) collected from sub-area F1 exceeded the RG for BaPEq. One of the base confirmation samples collected in sub-area F (D-VB-F-13-2 [4,100 µg/kg], 3 feet bgs), the excavation area adjoining sub-area F1, did exceed the RG for BaPEq. Consistent with the approach above, base confirmation samples were not used in the deeper subsurface soil data set used to assess risks to industrial workers. However, as indicated in the footnotes to data Table I, the 95% UCL for the base confirmation samples collected in sub-area F (1,900 µg/kg) does not exceed the RG. None of the results for other base confirmation soil samples collected from the Block D sub-areas exceed the RG for BaPEq. In fact, a review of data Tables D through J indicates that BaPEq reported for most base confirmation soil samples also do not exceed the USEPA RSL for industrial soils (290 µg/kg). Therefore, the conclusions of this RRA are not impacted by the exclusion of the base confirmation samples from the RRA.

The results of the risk assessment of the Block D (excluding the panhandle) post-excavation surface soils and subsurface soils datasets for industrial exposure are in Table M (presented in detail in Table 9.1, Attachment C). The cancer estimates for industrial worker exposures to surface

soil (1×10^{-6}) and subsurface soil (7×10^{-7}) do not exceed the MDE cumulative risk management benchmark (i.e., an excess lifetime cancer risk of 1×10^{-5}). The non-cancer risk estimates for industrial worker exposures to surface soil (0.001) and subsurface soil (0.0007) do not exceed a total target organ specific hazard index of 1. The cumulative risk estimates do not include estimates for arsenic because the maximum detected arsenic concentration in the post-excavation soil samples (4.9 milligrams per kilogram [mg/kg]) was less than the Middle River Complex background value (12 mg/kg) documented in the approved RAP for Block B (see background concentrations for arsenic in soils in Appendix E of the Block B RAP [Tetra Tech, 2010]). Lead, which was identified as a "global" COPC in the 2012 HHRA, was also excluded from final risk estimates since there are no cancer or noncancer toxicity values available to estimate risks. However, the final lead EPC of 15 mg/kg is less than the USEPA residential soil screening level of 400 mg/kg. With the exception of arsenic and lead, the cumulative risk estimates include risk estimates for all other COPC identified in the 2012 HHRA. It should be noted that the COPC list for the 2012 HHRA was not specific to Block D. It was a global COPC list, based on chemical concentrations detected in *all* of the tax blocks evaluated in the 2012 HHRA (i.e., Blocks D, E, F, G, and H).

Cancer risks and hazard indices were also calculated for residential exposures to surface and subsurface soil at Block D (excluding the panhandle) and are presented in Table N (presented in detail in Tables 9.2 through 9.5, Attachment C). The cancer risk for a hypothetical future, lifelong resident exposed to surface soil and subsurface soil exceeds the MDE cumulative risk management benchmark of 1×10^{-5}. Therefore the land use is not acceptable for unrestricted land use and land use controls such as a deed restriction will be required for the Block D (excluding the panhandle) as part of the MDE close out process.

4.0 Summary and Conclusions

The soil remediation for Block D (excluding the panhandle) consisted of the excavation of surface soils at sub-areas A, B, C, D, E, and F, and surface and subsurface soils at sub-area F1 within the tax block. The BaPEq concentrations detected in the sidewall post-excavation soil samples did not exceed the remedial goal established in the RAP (2,900 µg/kg). The BaPEq concentration (4,100 µg/kg) in one floor sample in sub-area F (not used in the RRA) exceeded the remedial goal.

The cancer estimates for industrial exposures to surface soil (1×10^{-6}) and subsurface soil (7×10^{-7}) and non-cancer risk estimates for surface soil (0.001) and subsurface soil (0.0007) (presented in detail in Table 9.1, Attachment C) calculated for the post-excavation soils dataset for Block D (excluding the panhandle) do not exceed MDE cumulative risk management benchmarks for industrial exposures verifying that risk reduction has been achieved for site closure under current and future industrial site use. The soil remediation at Block D (excluding the panhandle) has been completed successfully and the RAO has been achieved.

ACRONYMS

BaPEq	benzo(a)pyrene equivalents
bgs	below ground surface
Block	Tax Block
COC	chemical(s) of concern
COPC	chemical(s) of potential concern
EPC	exposure point concentration(s)
HHRA	human health risk assessment
MDE	Maryland Department of the Environment
µg/kg	micrograms per kilogram
mg/kg	milligram per kilogram
PAHs	polycyclic aromatic hydrocarbons
OSWER	Office of Solid Waste and Emergency Response
RAGS	Risk Assessment Guidance for Superfund
RRA	residual risk assessment
RAO	remedial action objective
RAP	remedial action plan
RSL	regional screening level
RG	remedial goal
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency

References

1. Maryland Department of the Environment (MDE), 2008. *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1)*. June.

2. Tetra Tech Inc. (Tetra Tech), 2010. *Final Soil Response Action Plan Block B, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. May.

3. Tetra Tech, Inc. (Tetra Tech), 2012. *Human Health Risk Assessment (HHRA) for Blocks D, E, F, G, and H Soils, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. September.

4. Tetra Tech, Inc. (Tetra Tech), 2013, *Block D Remedial Action Plan. Lockheed Martin Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. November

5. United States Environmental Protection Agency (USEPA), 2014. *Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* OSWER Directive 9200.1-120. Office of Superfund Remediation and Technology Innovation. Washington, D.C. February.

TABLES

Table A
List of Samples to be Excavated Per the 2012 Human Health Risk Assessment
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

BLOCK D EXCLUDING PANHANDLE			
Location	**BaPEq Concentration (µg/kg)**	**Industrial - Recommended for Removal**	**Comments**
Surface Soil (0 to 2 feet)			
D-SB-1299	83,170	X	Necessary to meet industrial preliminary remedial goals
SB-771	11,000	X	Added to address elevated data point in the vicinity of D-SB-1299.
SB-774	11,000	X	Added because vicinity of D-SB-1299 and because of subsurface soil contamination at this location
D-SB-1297	4,128	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1298	196	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1300	186	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1302	290	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1303	28	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1305	1952	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1306	1,400	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1307	5,667	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
D-SB-1308	502	X	Added because of vicinity of D-SB-1299, SB-771, and SB-774.
SB-060	23,000	X	Necessary to meet industrial preliminary remedial goals
SB-060A	18,000	X	Added because in vicinity SB-060.
SB-060B	24	X	Added because in vicinity SB-060.
SB-060C	646	X	Added because in vicinity SB-060.
SB-060D	9,800	X	Added because in vicinity SB-060.
SB-240B	13,000	X	Added along with SB-067 to address small area with elevated concentrations.
SB-240C	44	X	Added because of vicinity of SB-067 and SB-240B.
SB-240	2,400	X	Added because of vicinity of SB-067 and SB-240B.
SB-067	9,400	X	Added along with SB-240B to address small area with elevated concentrations.
SB-062D	17,000	X	Added along with SB-062 to address small area with elevated concentrations.
SB-062	7,600	X	Added along with SB-062D to address small area with elevated concentrations.
SB-062A	45	X	Added because of vicinity of SB-062 and SB-062D.
SB-781	8,300	X	Added to address single elevated data point
SB-058	8,600	X	Added because surface soil impacts in an easily accessible cluster
SB-058A	290	X	Added because surface soil impacts in an easily accessible cluster
SB-058B	3,000	X	Added because surface soil impacts in an easily accessible cluster
SB-058C	6,400	X	Added because surface soil impacts in an easily accessible cluster
SB-058D	131	X	Added because surface soil impacts in an easily accessible cluster
D-SB-1295	6,959	X	Added because surface soil impacts in an easily accessible cluster
D-SB-1296	7,623	X	Added because surface soil impacts in an easily accessible cluster

Only sampling locations located in the vadose zone are included in the tables. Depth to groundwater is 4 feet at Blocks D.

Table A
List of Samples to be Excavated Per the 2012 Human Health Risk Assessment
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

BLOCK D EXCLUDING PANHANDLE			
Location	**BaPEq Concentration (µg/kg)**	**Industrial - Recommended for Removal**	**Comments**
Thirty-two of the 102 sampling locations (31 percent) and 48 of 161 samples (30 percent) are recommended for removal if the industrial worker is the receptor of concern. The remedial goal for the industrial worker for the BaPEqs is 2,900 ug/kg. The residual site 95% UCL for BaPEqs would be 414 ug/kg.			

Only sampling locations located in the vadose zone are included in the tables. Depth to groundwater is 4 feet at Blocks D.

Table A
List of Samples to be Excavated Per the 2012 Human Health Risk Assessment
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

BLOCK D EXCLUDING PANHANDLE			
Location	**BaPEq Concentration (µg/kg)**	**Industrial - Recommended for Removal**	**Comments**
Subsurface Soil (2 to 4 feet)			
SB-774	24,000	X	Added to address single elevated data point
D-SB-1305	925	X	Added because in vicinity of SB-744.
D-SB-1365	5,800	X	Added because in vicinity of SB-744.
D-SB-1366	750	X	Added because in vicinity of D-SB-1365.
D-SB-1367	950	X	Added because in vicinity of D-SB-1365.
D-SB-1368	280	X	Added because in vicinity of D-SB-1365.
D-SB-1369	930	X	Added because in vicinity of D-SB-1365.
No samples need to be removed to meet remedial goals for the industrial receptor. However, 7 of the 114 sampling locations (6.1 percent) and 7 of 134 samples (5.2 percent) are recommended for removal if the industrial worker is the receptor of concern since this relatively small area with elevated concentrations is accessible for removal at 2 to 4 feet bgs. The remedial goal for the industrial worker for the BaPEqs is 2,900 ug/kg. The residual site 95% UCL for BaPEqs would be 290 ug/kg.			

Only sampling locations located in the vadose zone are included in the tables. Depth to groundwater is 4 feet at Blocks D.

Table B
Excavated Soil Samples
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sub-Area A		Sub-Area B		Sub-Area C		Sub-Area D		Sub-Area E		Sub-Area F		Sub-Area F1	
Surface Soil													
Location	**BaPEq Concentration (µg/kg)**	**Location**	**BaPEq Concentration (µg/kg)**	**Location**	**BaPEq Concentration (µg/kg)**	**Location**	**BaPEq Concentration (µg/kg)**	**Location**	**BaPEq Concentration (µg/kg)**	**Location**	**BaPEq Concentration (µg/kg)**	**Location**	**BaPEq Concentration (µg/kg)**
SB-062	7,600	SB-067	9,400	SB-060	23,000	SB-781	8,300	D-SB-1295	6,960	D-SB-1297	4,100	D-SB-1305	1,952
SB-062A	45	SB-240B	13,400	SB-060A	18,000	D-SB-1291	1.61	SB-058	8,600	D-SB-1298	200	SB-774	11,000
SB-062D	17,000	SB-240C	44	SB-060B	24	D-SB-1292	9.42	SB-058B	3,000	D-SB-1299	83,000		
		SB-240	2,400	SB-060D	9,800	D-SB-1293	19.1	SB-058C	6,400	D-SB-1300	190		
		SB-1283	12	SB-060C	650	D-SB-1294	12.9	B-SB-1296	7,600	D-SB-1302	290		
								SB-058D	130	D-SB-1303	28.4		
								SB-058A	120	D-SB-1306	1,400		
										D-SB-1307	5,700		
										D-SB-1308	502		
										SB-771	11,000		
Subsurface Soil													
												SB-774	24,000
												D-SB-1305	925
												D-SB-1365	5,800
												D-SB-1366	750
												D-SB-1367	950
												D-SB-1368	280
												D-SB-1369	930

BaPEq - Benzo(a)pyrene equivalents.
ug/kg - microgram per kilogram

Table C
Verification Soil Samples
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sub-Area A	Sub-Area B	Sub-Area C	Sub-Area D	Sub-Area E	Sub-Area F	Sub-Area F1
D-VB-A-1-2	D-VB-B-1-2	D-VB-C-1-2	D-VB-D-1-2	D-VB-E-1-2	D-VB-F-10-2	D-VB-F1-10-3
D-VB-A-2-2	D-VB-B-2-2	D-VB-C-2-2	D-VB-D-2-2	D-VB-E-2-2	D-VB-F-11-2	D-VB-F1-1-3
D-VB-A-3-2	D-VB-B-3-2	D-VB-C-3-2	D-VB-D-2-2-D	D-VB-E-3-2	D-VB-F-1-2	D-VB-F1-2-3
D-VS-A-1-1	D-VB-B-3-2-D	D-VB-C-4-2	D-VS-D-1-1	D-VB-E-3-2-D	D-VB-F-12-2	D-VB-F1-3-3
D-VS-A-2-1	D-VS-B-1-1	D-VS-C-1-1	D-VS-D-2-1	D-VB-E-4-2	D-VB-F-13-2	D-VB-F1-4-3
D-VS-A-3-1	D-VS-B-2-1	D-VS-C-2-1	D-VS-D-3-1	D-VB-E-5-2	D-VB-F-14-2	D-VB-F1-5-3
D-VS-A-4-1	D-VS-B-3-1	D-VS-C-3-1	D-VS-D-4-1	D-VB-E-6-2	D-VB-F-15-2	D-VB-F1-6-3
	D-VS-B-4-1	D-VS-C-4-1		D-VS-E-1-1	D-VB-F-16-2	D-VB-F1-7-3
		D-VS-C-4-1-D		D-VS-E-2-1	D-VB-F-17-2	D-VB-F1-8-3
				D-VS-E-3-1	D-VB-F-18-2	D-VB-F1-9-3
				D-VS-E-4-1	D-VB-F-19-2	D-VS-F1-1-2
					D-VB-F-20-2	D-VS-F1-2-2
					D-VB-F-21-3	D-VS-F1-3-2
					D-VB-F-21-3-D	D-VS-F1-4-2
					D-VB-F-2-2	D-VS-F1-4-2-D
					D-VB-F-22-2	
					D-VB-F-23-2	
					D-VB-F-23-2-D	
					D-VB-F-24-2	
					D-VB-F-25-2	
					D-VB-F-3-2	
					D-VB-F-4-2	
					D-VB-F-5-2	
					D-VB-F-6-2	
					D-VB-F-7-2	
					D-VB-F-8-2	
					D-VB-F-9-2	
					D-VS-F-1-1	
					D-VS-F-2-1	
					D-VS-F-3-1	
					D-VS-F-4-1	

VB - verification floor sample.
VS - verification sidewall sample.

Table D
Summary of Analytical Results in Soil Block D Sub-Area A
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VB-A-1-2 240-54270-4 08/12/2015 -- 2**	**D-VB-A-2-2 240-54086-10 08/06/2015 -- 2**	**D-VB-A-3-2 240-54270-5 08/12/2015 -- 2**	**D-VS-A-1-1 240-54270-1 08/12/2015 -- 1**	**D-VS-A-2-1 240-54086-9 08/06/2015 -- 1**	**D-VS-A-3-1 240-54270-2 08/12/2015 -- 1**	**D-VS-A-4-1 240-54270-3 08/12/2015 -- 1**
PAH (UG/KG)										
ACENAPHTHENE	360,000 N	4,500,000 N	-	35	18	18	5.5 J	0.9 U	380	80
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	5.1 J	0.4 U	65	5.4 J	0.42 U	14 J	16
ANTHRACENE	1,800,000 N	23,000,000 N	-	45	18	31	6.9 J	0.93 U	580	220
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*230*	*110*	*150*	*29*	1.3	**1,500**	**750**
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	*230*	*110*	*150*	*29*	0.44	**1,500**	**750**
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	140	74	80	22	0.75 U	*1,100*	*580*
BENZO(A)PYRENE	16 C	290 C	NA[5]	*150*	*80*	*100*	*22*	0.76 U	**1,000**	**510**
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	*220*	88	110	31	4.4 J	*1,300*	*620*
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	110	58	100	17	0.42 U	710	320
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	77	68	49	16	0.81 U	560	300
CHRYSENE	16,000 C	290,000 C	NA[5]	180	81	99	26	1.3 U	1,100	570
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	*29*	13	*20*	0.75 U	0.78 U	*180*	*92*
FLUORANTHENE	240,000 N	3,000,000 N	-	260	120	120	40	4.7 J	2,200	1,100
FLUORENE	240,000 N	3,000,000 N	-	48	16	24	6.3 J	0.63 U	390	98
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	93	50	68	15	0.42 U	*600*	*280*
NAPHTHALENE	3,800 C	17,000 C	-	56	140	14	42	0.97 U	120	84
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	120	71	75	20	0.87 U	1,800	600
PYRENE	180,000 N	2,300,000 N	-	270	110	180	40	7.3 J	1,700	880

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table E
Summary of Analytical Results in Soil Block D Sub-Area B
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VB-B-1-2 240-54086-5 08/06/2015 -- 2**	**D-VB-B-2-2 240-54086-6 08/06/2015 -- 2**	**D-VB-B-3-2 240-54086-7 08/06/2015 -- 2**	**D-VB-B-3-2-AVG -- 08/06/2015 -- 2**	**D-DUP01-080615 240-54086-8 08/06/2015 D-VB-B-3-2 2**	**D-VS-B-1-1 240-54086-1 08/06/2015 -- 1**	**D-VS-B-2-1 240-54086-2 08/06/2015 -- 1**	**D-VS-B-3-1 240-54086-3 08/06/2015 -- 1**	**D-VS-B-4-1 240-54086-4 08/06/2015 -- 1**
PAH (UG/KG)												
ACENAPHTHENE	360,000 N	4,500,000 N	-	4.8 J	5.8 J	15	13.5	12	9.8	0.89 U	0.89 U	7 J
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.4 U	0.41 U	0.4 U	0.395 U	0.39 U	0.41 U	0.41 U	0.41 U	0.41 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	0.89 U	4.7 J	12	11.5	11	0.92 U	4.5 J	0.91 U	0.91 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	5.5	12.7	*33.3*	*25.7*	*18.1*	13.3	*19.2*	0.75 U	1.6
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	5.1	12.3	*32.9*	*25.3*	*17.7*	12.9	*18.8*	0.75 U	0.85
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	4.6 J	11	26	21	16	9.6	17	0.73 U	4.3 J
BENZO(A)PYRENE	16 C	290 C	NA[5]	4 J	9.4	*25*	*19*	13	10	14	0.75 U	0.75 U
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	5.9 J	11	36 J	27.5	19 J	13	22	0.69 U	4.2 J
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	0.4 U	9.3	21	15.5	10	8.8	9.9	0.41 U	0.41 U
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	0.78 U	6.9 J	11	9.7	8.4	8.7	9.2	0.79 U	0.79 U
CHRYSENE	16,000 C	290,000 C	NA[5]	8.9	15	34	27.5	21	17	24	1.3 U	4.4 J
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.75 U	0.77 U	0.76 U	0.745 U	0.73 U	0.78 U	0.77 U	0.77 U	0.77 U
FLUORANTHENE	240,000 N	3,000,000 N	-	14	27	55	49	43	39	37	6.3 J	11
FLUORENE	240,000 N	3,000,000 N	-	4.4 J	7.1 J	15	13.5	12	29	4.5 J	0.62 U	18
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	0.4 U	6.1 J	16	13.5	11	5.4 J	7.8	0.41 U	0.41 U
NAPHTHALENE	3,800 C	17,000 C	-	9.8	12	17	15.5	14	8.2	12	0.96 U	4.6 J
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	15	23	54	55.5	57	51	21	5.7 J	25
PYRENE	180,000 N	2,300,000 N	-	10	22	46	41	36	34	31	5.7 J	8.6

Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RSL for industrial soil or the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table F
Summary of Analytical Results in Soil Block D Sub-Area C
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	USEPA RSL for Residential Soil[1]	USEPA RSL for Industrial Soil[1]	RG	D-VB-C-1-2 240-54270-10 08/12/2015 -- 2	D-VB-C-2-2 240-54270-11 08/12/2015 -- 2	D-VB-C-3-2 240-54270-12 08/12/2015 -- 2	D-VB-C-4-2 240-54270-13 08/12/2015 -- 2	D-VS-C-1-1 240-54270-6 08/12/2015 -- 1	D-VS-C-2-1 240-54270-7 08/12/2015 -- 1	D-VS-C-3-1 240-54270-8 08/12/2015 -- 1	D-VS-C-4-1 240-54270-9 08/12/2015 -- 1	D-VS-C-4-1-AVG -- 08/12/2015 -- 1	D-DUP02-081215 240-54270-14 08/12/2015 D-VS-C-4-1 1
PAH (UG/KG)													
ACENAPHTHENE	360,000 N	4,500,000 N	-	0.9 U	0.91 U	28	0.93 U	60	51	130	33 J	24	15 J
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.42 U	0.42 U	0.44 U	0.43 U	0.43 U	9.2	0.43 U	0.39 U	0.39 U	0.39 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	0.93 U	0.93 U	0.97 U	0.95 U	99	150	74	23	20	16
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	12	0.76 U	6.0	0.78 U	*240*	*160*	*110*	*72*	*51*	*30*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	11	0.76 U	5.6	0.78 U	*240*	*160*	*110*	*71*	*51*	*30*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	11	0.75 U	4.2 J	0.77 U	*190*	140	82	57 J	40	22 J
BENZO(A)PYRENE	16 C	290 C	NA[5]	8.7	0.76 U	4.5 J	0.78 U	*170*	*100*	*76*	*55* J	*39*	*23* J
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	13	0.7 U	6.7 J	0.72 U	*200*	140	100	70 J	50	30 J
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	0.42 U	0.42 U	0.44 U	0.43 U	110	71	50	35 J	26	17 J
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	0.81 U	0.81 U	0.85 U	0.83 U	110	68	40	29 J	22	15 J
CHRYSENE	16,000 C	290,000 C	NA[5]	11	1.3 U	4.5 J	1.3 U	190	140	87	61 J	45	29 J
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.78 U	0.79 U	0.82 U	0.81 U	*25*	*23*	13	0.74 U	0.74 U	0.73 U
FLUORANTHENE	240,000 N	3,000,000 N	-	24	0.66 U	10	0.67 U	440	500	230	110 J	85	60 J
FLUORENE	240,000 N	3,000,000 N	-	0.63 U	0.63 U	7.2 J	0.65 U	51	78	98	21	17	12
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	0.42 U	0.42 U	0.44 U	0.43 U	86	66	49	33 J	23	13 J
NAPHTHALENE	3,800 C	17,000 C	-	0.97 U	0.98 U	19	1 U	72	52	69	40 J	29	18 J
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	12	0.87 U	11	0.89 U	320	510	330	79	66	52
PYRENE	180,000 N	2,300,000 N	-	19	0.53 U	8.1 J	0.54 U	360	410	180	99 J	74	48 J

Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RSL for industrial soil or the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table G
Summary of Analytical Results in Soil Block D Sub-Area D
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VS-D-1-1 240-54724-13 08/25/2015 -- 1**	**D-VS-D-2-1 240-54724-14 08/25/2015 -- 1**	**D-VS-D-3-1 240-54724-15 08/25/2015 -- 1**	**D-VS-D-4-1 240-54724-16 08/25/2015 -- 1**	**D-VB-D-1-2 240-54724-17 08/25/2015 -- 2**	**D-VB-D-2-2 240-54724-18 08/25/2015 -- 2**
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	71	11	92	15	0.93 U	86 J
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.42 U	0.42 U	0.45 U	0.41 U	0.43 U	82 J
ANTHRACENE	1,800,000 N	23,000,000 N	-	63	7.6 J	31	4.5 J	0.95 U	610 J
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*74*	1.9	*24*	*17*	13	**2,500**
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	*74*	1.1	*24*	*17*	13	**2,500**
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	53	4.6 J	21	14	9.3	*2,300 J*
BENZO(A)PYRENE	16 C	290 C	NA[5]	*50*	0.77 U	*18*	13	9.8	**1,700 J**
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	71	5.9 J	24	15	16	*2,200 J*
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	32	0.42 U	11	11	9.8	1,100 J
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	19	0.81 U	8.8	7.8	4.8 J	1,000 J
CHRYSENE	16,000 C	290,000 C	NA[5]	56	5.5 J	23	14	12	2,100 J
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	8.7	0.79 U	0.84 U	0.77 U	0.8 U	*290 J*
FLUORANTHENE	240,000 N	3,000,000 N	-	150	16	81	22	17	4,200 J
FLUORENE	240,000 N	3,000,000 N	-	71	10	96	14	0.65 U	150 J
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	27	0.42 U	11	7.2 J	6.5 J	*950 J*
NAPHTHALENE	3,800 C	17,000 C	-	190	29	150	43	13	23 J
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	270	40	200	31	15	2,300 J
PYRENE	180,000 N	2,300,000 N	-	120	14	64	20	15	3,700 J

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table G
Summary of Analytical Results in Soil Block D Sub-Area D
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VB-D-2-2-AVG -- 08/25/2015 -- 2**	**D-DUP07-082515 240-54724-19 08/25/2015 D-VB-D-2-2 2**
PAH (UG/KG)					
ACENAPHTHENE	360,000 N	4,500,000 N	-	46	5.5 J
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	41	0.43 UJ
ANTHRACENE	1,800,000 N	23,000,000 N	-	310	13 J
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	**1,300**	*31*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	**1,300**	*30*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	*1,200*	28 J
BENZO(A)PYRENE	16 C	290 C	NA[5]	**860**	*23 J*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	*1,100*	30 J
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	560	15 J
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	510	17 J
CHRYSENE	16,000 C	290,000 C	NA[5]	1,100	31 J
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	*150*	0.81 UJ
FLUORANTHENE	240,000 N	3,000,000 N	-	2,100	72 J
FLUORENE	240,000 N	3,000,000 N	-	78	5.9 J
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	*480*	12 J
NAPHTHALENE	3,800 C	17,000 C	-	15	7.3 J
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	1,200	55 J
PYRENE	180,000 N	2,300,000 N	-	1,900	60 J

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table H
Summary of Analytical Results in Soil Block D Sub-Area E
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VB-E-1-2 240-54331-4 08/13/2015 -- 2**	**D-VB-E-2-2 240-54331-5 08/13/2015 -- 2**	**D-VB-E-3-2 240-54270-16 08/12/2015 -- 2**	**D-VB-E-3-2-AVG -- 08/12/2015 -- 2**	**D-DUP03-081215 240-54270-18 08/12/2015 D-VB-E-3-2 2**	**D-VB-E-4-2 240-54331-6 08/13/2015 -- 2**	**D-VB-E-5-2 240-54331-7 08/13/2015 -- 2**	**D-VB-E-6-2 240-54270-17 08/12/2015 -- 2**
PAH (UG/KG)											
ACENAPHTHENE	360,000 N	4,500,000 N	-	5.8 J	0.89 U	0.91 U	0.92 U	0.92 U	120	0.9 U	9.5
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.41 U	0.41 U	0.42 U	0.42 U	0.42 U	12 J	0.42 U	0.41 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	7.5 J	0.92 U	0.93 U	0.94 U	0.94 U	240	0.93 U	19
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*25*	7.6	1.5	5.0	8.6	**1,300**	0.76 U	*120*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	*25*	7.2	0.65	4.4	8.1	**1,300**	0.76 U	*120*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	21	5.1 J	6.5 J	7.4	8.2	*880*	0.75 U	76
BENZO(A)PYRENE	16 C	290 C	NA[5]	*19*	5.4 J	0.76 U	3.2	6 J	**890**	0.76 U	*80*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	25	8	0.7 U	6.7	13	*1,200*	0.7 U	110
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	12	4.9 J	0.42 U	0.42 U	0.42 U	560	0.42 U	63
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	11	0.8 U	0.81 U	0.82 U	0.82 U	440	0.81 U	48
CHRYSENE	16,000 C	290,000 C	NA[5]	21	6.9 J	4.9 J	8.0	11	950	1.3 U	91
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.78 U	0.78 U	0.79 U	0.80 U	0.8 U	*190*	0.79 U	14
FLUORANTHENE	240,000 N	3,000,000 N	-	41	8.6	10	13	16	1,600	0.65 U	150
FLUORENE	240,000 N	3,000,000 N	-	0.63 U	0.62 U	0.63 U	0.64 U	0.64 U	95	0.63 U	8.2
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	11	5.3 J	0.42 U	0.42 U	0.42 U	*500*	0.42 U	55
NAPHTHALENE	3,800 C	17,000 C	-	0.97 U	0.96 U	0.98 U	0.99 U	0.99 U	15 J	0.98 U	7.6 J
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	29	6 J	6.2 J	7.1	8 J	920	0.87 U	77
PYRENE	180,000 N	2,300,000 N	-	35	7.6 J	8.5	11.3	14	1,400	0.52 U	130

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS, THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES SAMPLES HIGHLIGHTED IN YELLOW IS: 2,700 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table H
Summary of Analytical Results in Soil Block D Sub-Area E
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VS-E-1-1 240-54331-1 08/13/2015 -- 1**	**D-VS-E-2-1 240-54270-15 08/12/2015 -- 1**	**D-VS-E-3-1 240-54331-2 08/13/2015 -- 1**	**D-VS-E-4-1 240-54331-3 08/13/2015 -- 1**
PAH (UG/KG)							
ACENAPHTHENE	360,000 N	4,500,000 N	-	140	16	130	7.2 J
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	27	9.2	41	9.9
ANTHRACENE	1,800,000 N	23,000,000 N	-	300	44	360	22
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	**1,400**	**470**	**2,900**	*270*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	**1,400**	**470**	**2,900**	*270*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	*880*	*270*	*1,700*	140
BENZO(A)PYRENE	16 C	290 C	NA[5]	**900**	**310**	**2,000**	*180*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	*1,300*	*510*	*2,400*	*230*
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	550	240	1,100	150
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	420	230	1,000	99
CHRYSENE	16,000 C	290,000 C	NA[5]	1,000	520	1,900	160
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	*190*	*57*	**400**	*37*
FLUORANTHENE	240,000 N	3,000,000 N	-	1,800	620	3,000	200
FLUORENE	240,000 N	3,000,000 N	-	130	12	96	6.7 J
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	*510*	*200*	*1,000*	130
NAPHTHALENE	3,800 C	17,000 C	-	66	4.3 J	15 J	7.7
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	1,100	150	1,200	100
PYRENE	180,000 N	2,300,000 N	-	1,600	540	2,700	210

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS, THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES SAMPLES HIGHLIGHTED IN YELLOW IS: 2,700 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table I
Summary of Analytical Results in Soil Block D Sub-Area F
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VS-F-1-1 240-54724-9 08/25/2015 -- 1**	**D-VS-F-2-1 240-54724-10 08/25/2015 -- 1**	**D-VS-F-3-1 240-54676-12 08/24/2015 -- 1**	**D-VS-F-4-1 240-54467-1 08/18/2015 -- 1**	**D-VB-F-1-2 240-54724-1 08/25/2015 -- 2**	**D-VB-F-2-2 240-54724-2 08/25/2015 -- 2**
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	7.5 J	0.88 U	0.97 U	10	200	27
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	6.2 J	0.41 U	0.45 U	22	0.81 U	6.1 J
ANTHRACENE	1,800,000 N	23,000,000 N	-	21	0.9 U	11	39	260	57
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*160*	14	*110*	**360**	**1,100**	*240*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS	16 C	290 C	2,900	*160*	14	*110*	**360**	**1,100**	*240*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	100	10	75	*200*	*760*	150
BENZO(A)PYRENE	16 C	290 C	NA[5]	*110*	9.6	*71*	*230*	**760**	*160*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	150	19	110	*350*	*1000*	*200*
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	83	17	54	260	500	110
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	56	6.8 J	46	130	430	83
CHRYSENE	16,000 C	290,000 C	NA[5]	110	13	92	270	840	160
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	*21*	0.76 U	13	*54*	*120*	*33*
FLUORANTHENE	240,000 N	3,000,000 N	-	160	15	160	410	1700	270
FLUORENE	240,000 N	3,000,000 N	-	6.8 J	0.61 U	0.68 U	13	120	23
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	71	12	44	*190*	*430*	97
NAPHTHALENE	3,800 C	17,000 C	-	10	13	1 U	12	100	13
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	79	6.4 J	44	180	1000	190
PYRENE	180,000 N	2,300,000 N	-	150	14	140	410	1500	240

Results shaded black in bold white font exceed the RG.
Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS (BOTH 1/2 NON-DETECT AND POSITIVE RESULTS) , THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES HIGHLIGHTED IN YELLOW IS: 1,900 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table I
Summary of Analytical Results in Soil Block D Sub-Area F
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME				D-VB-F-3-2	D-VB-F-4-2	D-VB-F-5-2	D-VB-F-6-2	D-VB-F-7-2	D-VB-F-8-2
LAB ID				240-54724-3	240-54724-4	240-54724-5	240-54373-1	240-54724-6	240-54724-7
SAMPLE DATE				08/25/2015	08/25/2015	08/25/2015	08/14/2015	08/25/2015	08/25/2015
DUP OF				--	--	--	--	--	--
SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	2	2	2	2	2	2
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	0.88 U	0.92 U	0.89 U	0.91 U	0.85 U	9.2
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.4 U	0.42 U	0.41 U	0.42 U	0.39 U	4.4 J
ANTHRACENE	1,800,000 N	23,000,000 N	-	4.2 J	0.95 U	4.5 J	0.94 U	5.6 J	18
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*17*	0.78 U	*33*	0.77 U	*44*	*91*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS	16 C	290 C	2,900	*17*	0.78 U	*33*	0.77 U	*44*	*91*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	14	0.76 U	22	0.76 U	25	54
BENZO(A)PYRENE	16 C	290 C	NA[5]	13	0.78 U	*25*	0.77 U	*30*	*62*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	17	0.72 U	39	0.71 U	37	78
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	9	0.42 U	19	0.42 U	26	39
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	8	0.82 U	14	0.82 U	15	36
CHRYSENE	16,000 C	290,000 C	NA[5]	17	1.3 U	32	1.3 U	26	67
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.76 U	0.8 U	0.77 U	0.79 U	5.7 J	12
FLUORANTHENE	240,000 N	3,000,000 N	-	35	0.67 U	41	0.66 U	36	110
FLUORENE	240,000 N	3,000,000 N	-	0.61 U	0.64 U	0.62 U	0.64 U	0.6 U	8.5
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	7.6 J	0.42 U	16	0.42 U	18	35
NAPHTHALENE	3,800 C	17,000 C	-	0.95 U	6.9 J	9.1	0.99 U	8.4	49
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	17	0.89 U	15	0.88 U	19	67
PYRENE	180,000 N	2,300,000 N	-	33	0.53 U	38	0.53 U	34	92

Results shaded black in bold white font exceed the RG.
Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS (BOTH 1/2 NON-DETECT AND POSITIVE RESULTS) , THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES HIGHLIGHTED IN YELLOW IS: 1,900 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table I
Summary of Analytical Results in Soil Block D Sub-Area F
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME				D-VB-F-9-2	D-VB-F-10-2	D-VB-F-11-2	D-VB-F-12-2	D-VB-F-13-2	D-VB-F-14-2
LAB ID				240-54724-8	240-54467-2	240-54373-2	240-54373-3	240-54467-3	240-54467-4
SAMPLE DATE				08/25/2015	08/18/2015	08/14/2015	08/14/2015	08/18/2015	08/18/2015
DUP OF				--	--	--	--	--	--
SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	2	2	2	2	2	2
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	0.9 U	4.4 J	0.82 U	59	510	0.9 U
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.41 U	6.1 J	0.38 U	7.2 J	71	0.42 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	0.92 U	12	0.84 U	90	1,400	0.93 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	0.76 U	*61*	*20*	**300**	**4,100**	8.2
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS	16 C	290 C	2,900	0.76 U	*61*	*20*	**300**	**4,100**	7.8
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	0.75 U	43	13	*210*	*2,900*	0.75 U
BENZO(A)PYRENE	16 C	290 C	NA[5]	0.76 U	*47*	15	*210*	**2,700**	5.8 J
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	0.7 U	58	26	*280*	**3,200**	6.4 J
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	0.41 U	36	11	92	2,000	19
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	0.81 U	32	6.2 J	110	1,600	0.81 U
CHRYSENE	16,000 C	290,000 C	NA[5]	1.3 U	52	20	230	2,900	11
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.78 U	0.7 U	0.71 U	*34*	**580**	0.78 U
FLUORANTHENE	240,000 N	3,000,000 N	-	0.65 U	81	22	440	6,300	4.1 J
FLUORENE	240,000 N	3,000,000 N	-	0.63 U	6.6 J	0.57 U	37	570	0.63 U
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	0.41 U	31	10	100	*1,700*	13
NAPHTHALENE	3,800 C	17,000 C	-	0.97 U	12	4.4 J	17	47 J	0.97 U
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	0.86 U	47	11	330	4,700	0.87 U
PYRENE	180,000 N	2,300,000 N	-	0.52 U	76	24	370	5,200	4.7 J

Results shaded black in bold white font exceed the RG.
Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS (BOTH 1/2 NON-DETECT AND POSITIVE RESULTS) , THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES HIGHLIGHTED IN YELLOW IS: 1,900 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table I
Summary of Analytical Results in Soil Block D Sub-Area F
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME				D-VB-F-15-2	D-VB-F-16-2	D-VB-F-17-2	D-VB-F-18-2	D-VB-F-19-2	D-VB-F-20-2
LAB ID				240-54467-5	240-54373-4	240-54373-5	240-54373-6	240-54467-6	240-54676-8
SAMPLE DATE				08/18/2015	08/14/2015	08/14/2015	08/14/2015	08/18/2015	08/24/2015
DUP OF				--	--	--	--	--	--
SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	2	2	2	2	2	2
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	7.1 J	0.86 U	0.88 U	6.8 J	0.88 U	0.9 U
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.4 U	0.4 U	0.41 U	0.43 U	0.41 U	0.41 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	15	0.88 U	0.9 U	20	5.9 J	0.92 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*75*	0.72 U	*18*	*130*	*17*	*21*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS	16 C	290 C	2,900	*75*	0.72 U	*17*	*130*	*17*	*21*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	48	0.71 U	16	110	14	15
BENZO(A)PYRENE	16 C	290 C	NA[5]	*50*	0.72 U	13	*88*	10	14
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	65	0.67 U	21	130	36	36
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	43	0.4 U	6.6 J	52	22	14
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	29	0.77 U	8.9	59	12	12
CHRYSENE	16,000 C	290,000 C	NA[5]	49	1.2 U	18	120	42	30
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	10	0.75 U	0.77 U	16	0.77 U	0.78 U
FLUORANTHENE	240,000 N	3,000,000 N	-	86	0.62 U	36	260	34	23
FLUORENE	240,000 N	3,000,000 N	-	7.8	0.6 U	0.61 U	6.3 J	0.62 U	0.63 U
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	35	0.4 U	6.6 J	46	17	13
NAPHTHALENE	3,800 C	17,000 C	-	7.3 J	0.93 U	0.95 U	5.8 J	4.1 J	0.97 U
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	45	0.83 U	14	120	15	10
PYRENE	180,000 N	2,300,000 N	-	75	0.5 U	30	210	30	33

Results shaded black in bold white font exceed the RG.
Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS (BOTH 1/2 NON-DETECT AND POSITIVE RESULTS) , THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES HIGHLIGHTED IN YELLOW IS: 1,900 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table I
Summary of Analytical Results in Soil Block D Sub-Area F
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME				D-VB-F-21-3	D-VB-F-21-3-AVG	D-DUP04-081415	D-VB-F-22-2	D-VB-F-23-2	D-VB-F-23-2-AVG
LAB ID				240-54373-7	--	240-54373-9	240-54373-8	240-54676-9	--
SAMPLE DATE				08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/24/2015	08/24/2015
DUP OF				--	--	D-VB-F-21-3	--	--	--
SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	3	3	3	2	2	2
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	0.93 U	0.935 U	0.94 U	0.91 U	0.93 U	0.93 U
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.43 U	0.43 U	0.43 U	9.6	0.43 U	0.43 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	0.96 U	0.96 U	0.96 U	44	0.95 U	0.95 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	0.78 U	5.0	9.6	**340**	0.78 U	0.78 U
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS	16 C	290 C	2,900	0.78 U	4.8	9.2	**340**	0.78 U	0.78 U
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	0.77 U	5.0	9.6	*170*	0.77 U	0.77 U
BENZO(A)PYRENE	16 C	290 C	NA[5]	0.78 U	3.7	7 J	*250*	0.78 U	0.78 U
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	0.72 U	6.2	12	*300*	0.72 U	0.72 U
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	0.43 U	0.43 U	0.43 U	110	0.43 U	0.43 U
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	0.83 U	2.4	4.3 J	140	0.83 U	0.83 U
CHRYSENE	16,000 C	290,000 C	NA[5]	1.3 U	4.3	8 J	340	1.3 U	1.3 U
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.81 U	0.815 U	0.82 U	*32*	0.81 U	0.81 U
FLUORANTHENE	240,000 N	3,000,000 N	-	0.67 U	10.7	21	160	0.67 U	0.67 U
FLUORENE	240,000 N	3,000,000 N	-	0.65 U	0.65 U	0.65 U	5.2 J	0.65 U	0.65 U
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	0.43 U	0.43 U	0.43 U	100	0.43 U	0.43 U
NAPHTHALENE	3,800 C	17,000 C	-	1 U	1 U	1 U	16	1 U	1.00 U
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	0.89 U	3.1	5.8 J	45	0.89 U	0.89 U
PYRENE	180,000 N	2,300,000 N	-	0.54 U	9.1	18	160	0.54 U	2.5

Results shaded black in bold white font exceed the RG.
Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS (BOTH 1/2 NON-DETECT AND POSITIVE RESULTS) , THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES HIGHLIGHTED IN YELLOW IS: 1,900 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table I
Summary of Analytical Results in Soil Block D Sub-Area F
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

SAMPLE NAME LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-DUP06-082415** **240-54676-13** **08/24/2015** **D-VB-F-23-2** **2**	**D-VB-F-24-2** **240-54676-10** **08/24/2015** **--** **2**	**D-VB-F-25-2** **240-54676-11** **08/24/2015** **--** **2**
PAH (UG/KG)						
ACENAPHTHENE	360,000 N	4,500,000 N	-	0.92 U	0.89 U	16
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.42 U	0.41 U	0.39 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	0.94 U	0.91 U	23
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	0.77 U	0.75 U	*110*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS	16 C	290 C	2,900	0.77 U	0.75 U	*110*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	0.76 U	0.73 U	75
BENZO(A)PYRENE	16 C	290 C	NA[5]	0.77 U	0.75 U	*74*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	0.71 U	0.69 U	100
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	0.42 U	0.41 U	53
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	0.82 U	0.79 U	39
CHRYSENE	16,000 C	290,000 C	NA[5]	1.3 U	1.3 U	79
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.8 U	0.77 U	13
FLUORANTHENE	240,000 N	3,000,000 N	-	0.66 U	0.64 U	160
FLUORENE	240,000 N	3,000,000 N	-	0.64 U	0.62 U	9.8
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	0.42 U	0.41 U	43
NAPHTHALENE	3,800 C	17,000 C	-	0.99 U	0.96 U	5.8 J
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	0.88 U	0.85 U	95
PYRENE	180,000 N	2,300,000 N	-	4.7 J	0.51 U	140

Results shaded black in bold white font exceed the RG.
Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

FOR BENZO(A)PYRENE EQUIVALENTS (BOTH 1/2 NON-DETECT AND POSITIVE RESULTS) , THE 95% UPPER CONFIDENCE LIMIT (UCL) ON THE MEAN OF THE SAMPLES HIGHLIGHTED IN YELLOW IS: 1,900 UG/KG.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table J
Summary of Analytical Results in Soil Block D Sub-Area F1
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VS-F1-1-2 240-54590-2 08/19/2015 -- 2**	**D-VS-F1-2-2 240-54590-1 08/19/2015 -- 2**	**D-VS-F1-3-2 240-54676-7 08/24/2015 -- 2**	**D-VS-F1-4-2 240-54676-1 08/24/2015 -- 2**	**D-VS-F1-4-2-AVG -- 08/24/2015 -- 2**	**D-DUP05-082415 240-54676-6 08/24/2015 D-VS-F1-4-2 2**
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	160	9.5	10	0.85 U	0.85 U	0.85 U
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	22 J	9.2	0.42 U	0.39 U	0.39 U	0.39 U
ANTHRACENE	1,800,000 N	23,000,000 N	-	350	17	9.7	0.87 U	0.87 U	0.87 U
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	**1,400**	*140*	*58*	3.6	2.5	1.3
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	**1,400**	*140*	*57*	2.8	1.7	0.56
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	*1,100*	69	40	8.2	4.3	0.7 U
BENZO(A)PYRENE	16 C	290 C	NA[5]	**990**	*88*	*44*	0.72 U	0.72 U	0.72 U
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	*1,400*	150	65	15	10	5.5 J
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	500	69	31	6 J	3.1	0.39 U
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	560	53	22	10	5.2	0.76 U
CHRYSENE	16,000 C	290,000 C	NA[5]	1,200	97	48	15	10	5.2 J
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	*150*	*20*	0.79 U	0.74 U	0.74 U	0.74 U
FLUORANTHENE	240,000 N	3,000,000 N	-	3,000	110	63	19	13	7 J
FLUORENE	240,000 N	3,000,000 N	-	120	8.2	0.63 U	0.59 U	0.59 U	0.59 U
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	*470*	61	26	4.1 J	2.1	0.39 U
NAPHTHALENE	3,800 C	17,000 C	-	39	6.7 J	6.1 J	5.3 J	2.9	0.92 U
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	1,400	63	28	6 J	3.2	0.82 U
PYRENE	180,000 N	2,300,000 N	-	2,400	95	61	16	11	6.8 J

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

[1] USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2016. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
[2] The value is for acenaphthene.
[3] Calculated using one-half the detection limit for non-detected results.
[4] Calculated using a value of zero for non-detected results.
[5] cPAHs have been used in calculating the benzo(a)pyrene equivalents and therefore are not screened against the RG.
[6] The value is for pyrene.

C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table J
Summary of Analytical Results in Soil Block D Sub-Area F1
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VB-F1-1-3 240-54676-2 08/24/2015 -- 3**	**D-VB-F1-2-3 240-54590-3 08/19/2015 -- 3**	**D-VB-F1-3-3 240-54590-4 08/19/2015 -- 3**	**D-VB-F1-4-3 240-54676-3 08/24/2015 -- 3**	**D-VB-F1-5-3 240-54676-4 08/24/2015 -- 3**	**D-VB-F1-6-3 240-54590-5 08/19/2015 -- 3**
PAH (UG/KG)									
ACENAPHTHENE	360,000 N	4,500,000 N	-	5.9 J	0.88 U	0.88 U	14	0.9 U	9.4
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	6.3 J	0.41 U	0.41 U	9.8	0.41 U	6.9 J
ANTHRACENE	1,800,000 N	23,000,000 N	-	16	0.9 U	0.91 U	29	7.5 J	23
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	*110*	1.2	1.2	*120*	1.7	*110*
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	*110*	0.41	0.4	*120*	0.95	*110*
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	65	0.73 U	0.73 U	87	4.3 J	80
BENZO(A)PYRENE	16 C	290 C	NA[5]	*72*	0.74 U	0.74 U	*82*	0.76 U	*70*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	120	4.1 J	4 J	110	5.1 J	150
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	67	0.41 U	0.41 U	57	0.41 U	48
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	38	0.79 U	0.79 U	58	0.81 U	49
CHRYSENE	16,000 C	290,000 C	NA[5]	81	1.3 U	1.3 U	86	5.8 J	130
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	*17*	0.76 U	0.77 U	13	0.78 U	16
FLUORANTHENE	240,000 N	3,000,000 N	-	120	6 J	4.9 J	200	63	160
FLUORENE	240,000 N	3,000,000 N	-	8.6	0.61 U	0.62 U	16	0.63 U	9.9
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	56	0.41 U	0.41 U	51	0.41 U	47
NAPHTHALENE	3,800 C	17,000 C	-	14	0.95 U	0.95 U	10	0.97 U	14
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	52	0.84 U	4.6 J	110	5.8 J	95
PYRENE	180,000 N	2,300,000 N	-	110	5.7 J	4.5 J	190	48	140

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

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[2] The value is for acenaphthene.
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C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
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UG/KG - Microgram per kilogram
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Table J
Summary of Analytical Results in Soil Block D Sub-Area F1
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

NSAMPLE LAB ID SAMPLE DATE DUP OF SAMPLE DEPTH (FT)	**USEPA RSL for Residential Soil[1]**	**USEPA RSL for Industrial Soil[1]**	**RG**	**D-VB-F1-7-3 240-54590-6 08/19/2015 -- 3**	**D-VB-F1-8-3 240-54590-7 08/19/2015 -- 3**	**D-VB-F1-9-3 240-54590-8 08/19/2015 -- 3**	**D-VB-F1-10-3 240-54676-5 08/24/2015 -- 3**
PAH (UG/KG)							
ACENAPHTHENE	360,000 N	4,500,000 N	-	0.9 U	0.88 U	5.2 J	17
ACENAPHTHYLENE	360,000 N[2]	4,500,000 N[2]	-	0.42 U	0.41 U	0.4 U	15
ANTHRACENE	1,800,000 N	23,000,000 N	-	0.93 U	0.91 U	10	60
BENZO(A)PYRENE EQUIVALENTS-1/2 NON-DETECT[3]	16 C	290 C	2,900	1.4	0.74 U	*58*	**320**
BENZO(A)PYRENE EQUIVALENTS-POSITIVE RESULTS[4]	16 C	290 C	2,900	0.53	0.74 U	*58*	**320**
BENZO(A)ANTHRACENE	160 C	2,900 C	NA[5]	0.75 U	0.73 U	39	*170*
BENZO(A)PYRENE	16 C	290 C	NA[5]	0.76 U	0.74 U	*39*	*210*
BENZO(B)FLUORANTHENE	160 C	2,900 C	NA[5]	5.2 J	0.69 U	61	*290*
BENZO(G,H,I)PERYLENE	180,000 N[6]	2,300,000 N[6]	-	0.42 U	0.41 U	20	180
BENZO(K)FLUORANTHENE	1,600 C	29,000 C	NA[5]	0.81 U	0.79 U	21	110
CHRYSENE	16,000 C	290,000 C	NA[5]	6.3 J	1.3 U	43	300
DIBENZO(A,H)ANTHRACENE	16 C	290 C	NA[5]	0.79 U	0.77 U	6.5 J	*51*
FLUORANTHENE	240,000 N	3,000,000 N	-	5.6 J	0.64 U	68	270
FLUORENE	240,000 N	3,000,000 N	-	0.63 U	0.62 U	0.6 U	18
INDENO(1,2,3-CD)PYRENE	160 C	2,900 C	NA[5]	0.42 U	0.41 U	20	150
NAPHTHALENE	3,800 C	17,000 C	-	0.98 U	0.95 U	5 J	19
PHENANTHRENE	180,000 N[6]	2,300,000 N[6]	-	4.1 J	0.85 U	38	150
PYRENE	180,000 N	2,300,000 N	-	6.3 J	4.1 J	59	270

Results shaded dark gray in bold font exceed the RSL for industrial soil.
Results shaded light gray in italics exceed the RSL for residential soil.
No results exceed the RG.

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[2] The value is for acenaphthene.
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C - Carcinogenic
cPAHs - Carcinogenic polycyclic aromatic hydrocarbons
J - Estimated
N - Noncarcinogenic
NA - Not applicable/not available
RG - Remedial goal
U - Non-detect
UG/KG - Microgram per kilogram
UJ - Non-detected value is estimated

Table K
Occurrence, Distribution, And Selection Of Chemicals Of Potential Concern - Direct Contact With Surface Soil
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin, Middle River Complex, Middle River, Maryland
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL - Residential Soil[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
Block D Excluding Panhandle	**Volatile Organic Compounds**														
	95-63-6	1,2,4-Trimethylbenzene	33	33	ug/kg	SB-66-SS	1/12	0.32 - 7	33	NA	5,800 N	NA	NA	No	BSL
	108-67-8	1,3,5-Trimethylbenzene	23	23	ug/kg	SB-66-SS	1/12	0.32 - 7	23	NA	78,000 N	NA	NA	No	BSL
	100-41-4	Ethylbenzene	8	8	ug/kg	SB-66-SS	1/12	0.25 - 7	8	NA	5,800 C	NA	NA	No	BSL
	108-38-3	m+p-Xylenes	10 J	10 J	ug/kg	SB-66-SS	1/12	0.24 - 14	10	NA	55,000 N[7]	NA	NA	No	BSL
	75-09-2	Methylene Chloride	7 J	10 J	ug/kg	SB-66-SS	2/12	0.33 - 7	10	NA	35,000 N	NA	NA	No	BSL
	91-20-3	Naphthalene	260	260	ug/kg	SB-66-SS	1/12	0.45 - 7	260	NA	3,800 C	NA	NA	No	BSL
	95-47-6	o-Xylene	23	23	ug/kg	SB-66-SS	1/12	0.25 - 7	23	NA	65,000 N	NA	NA	No	BSL
	Polynuclear Aromatic Hydrocarbons														
	90-12-0	1-Methylnaphthalene	15	28	ug/kg	D-SS-769-01	2/16	0.55 - 15	28	NA	18,000 C	NA	NA	No	BSL
	91-57-6	2-Methylnaphthalene	9.3	990 J	ug/kg	SB-66-SS	3/28	0.55 - 4800	990	NA	24,000 N	NA	NA	No	BSL
	83-32-9	Acenaphthene	4.2 J	380	ug/kg	D-VS-A-3-1	44/127	0.83 - 4800	380	NA	360,000 N	NA	NA	No	BSL
	208-96-8	Acenaphthylene	4.6 J	450 J	ug/kg	SB-64-SS	27/127	0.38 - 4800	450	NA	360,000 N[8]	NA	NA	No	BSL
	120-12-7	Anthracene	3.9 J	580	ug/kg	D-VS-A-3-1	89/127	0.87 - 4800	580	NA	1,800,000 N	NA	NA	No	BSL
	--	**Benzo(a)pyrene Equivalents**	0.06	4,207	ug/kg	SB-64-SS	162/185	0.73 - 4200	4,207	NA	**16 C**	NA	NA	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	4.3 J	1,700	ug/kg	D-VS-E-3-1	151/185	0.72 - 4800	1,700	NA	**160 C**	NA	NA	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	5.7 J	2,400	ug/kg	D-SB-243RE-1	152/185	0.73 - 4800	2,400	NA	**16 C**	NA	NA	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	4.2 J	2,400	ug/kg	D-SB-243RE-1, D-VS-E-3-1	157/185	0.67 - 4800	2,400	NA	**160 C**	NA	NA	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	8.8	1,900 J	ug/kg	SB-64-SS	50/127	0.38 - 4800	1,900	NA	180,000 N[9]	NA	NA	No	BSL
	207-08-9	Benzo(k)fluoranthene	4.2 J	1,500 J	ug/kg	SB-64-SS	142/185	0.77 - 4800	1,500	NA	1,600 C	NA	NA	No	BSL
	218-01-9	Chrysene	4.4 J	1,900	ug/kg	D-SB-243RE-1, D-VS-E-3-1	155/185	1 - 4200	1,900	NA	16,000 C	NA	NA	No	BSL
	53-70-3	**Dibenzo(a,h)anthracene**	8.7	400	ug/kg	D-VS-E-3-1	33/185	0.72 - 4800	400	NA	**16 C**	NA	NA	**Yes**	ASL
	206-44-0	Fluoranthene	4.7 J	3,000	ug/kg	D-VS-E-3-1	115/127	0.63 - 4800	3,000	NA	240,000 N	NA	NA	No	BSL
	86-73-7	Fluorene	4.4 J	610 J	ug/kg	SB-66-SS	47/127	0.58 - 4800	610	NA	240,000 N	NA	NA	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	5.4 J	1,600	ug/kg	D-SB-243RE-1	78/185	0.38 - 4800	1,600	NA	**160 C**	NA	NA	**Yes**	ASL
	91-20-3	Naphthalene	4.2 J	690 J	ug/kg	SB-66-SS	53/127	0.89 - 4800	690	NA	3,800 C	NA	NA	No	BSL
	85-01-8	Phenanthrene	5.5 J	1,800	ug/kg	D-VS-A-3-1	109/127	0.83 - 4800	1,800	NA	180,000 N[9]	NA	NA	No	BSL
	129-00-0	Pyrene	4.6 J	3,600 J	ug/kg	SB-64-SS	118/127	0.5 - 3700	3,600	NA	180,000 N	NA	NA	No	BSL
	Metals														
	7440-38-2	**Arsenic**	0.4 J	4.9	mg/kg	SB-66-SS	10/12	0.48 - 0.56	4.9	NA	**0.68 C**	NA	NA	**Yes**	ASL
	7440-41-7	Beryllium	3.5	3.5	mg/kg	SB-63-SS, SB-64-SS	2/12	0.023 - 3.1	3.5	NA	16 N	NA	NA	No	BSL
	7440-47-3	Chromium	7.9 L	36 J	mg/kg	SB-66-SS	12/12	-	36	NA	12,000 N[10]	NA	NA	No	BSL
	7440-50-8	Copper	1.1 J	22	mg/kg	SB-66-SS	12/12	-	22	NA	310 N	NA	NA	No	BSL
	7439-92-1	**Lead**	0.39 J	75 K	mg/kg	SB-64-SS	12/12	-	75	NA	400	NA	NA	**Yes**	(11)
	7440-02-0	Nickel	0.21 J	15 K	mg/kg	SB-64-SS	12/12	-	15	NA	150 N	NA	NA	No	BSL
	7782-49-2	Selenium	2.5	3.5	mg/kg	SB-64-SS	2/12	0.3 - 3.3	3.5	NA	39 N	NA	NA	No	BSL
	7440-66-6	Zinc	1.3 J	71 L	mg/kg	SB-63-SS	7/12	24 - 31	71	NA	2,300 N	NA	NA	No	BSL
	Miscellaneous Compounds														
	18540-29-9	**Hexavalent Chromium**	0.395	1.8	mg/kg	SB-66-SS	12/12	-	1.8	NA	**0.3 C**	NA	NA	**Yes**	ASL

Table K
Occurrence, Distribution, And Selection Of Chemicals Of Potential Concern - Direct Contact With Surface Soil
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin, Middle River Complex, Middle River, Maryland
Middle River, Maryland

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data are available.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites (May 2016). Values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Values are for m-xylene.
8 - Values are for acenaphthene.
9 - Value is for pyrene.
10 - Value is for trivalent chromium.
11 - Lead was retained as a COPC in the original 2012 risk assessment therefore is it also being included in this evaluation.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

Associated Samples

D-SB-1279-1-2	D-SB-1292-SS	D-SB-1306-SS	D-SB-61RE-2	D-SB-66RED-2	D-SB-243REC-2	D-VS-B-1-1
D-SB-1279-SS	D-SB-1293-1-2	D-SB-1307-1-2	D-SB-61RE-2-D	SB-67-SS	D-SB-243RED-2	D-VS-B-2-1
D-SB-1280-1-2	D-SB-1293-SS	D-SB-1307-SS	SB-61-SS	D-SB-239RE-2	D-SB-592-2	D-VS-B-3-1
D-SB-1280-SS	D-SB-1294-1-2	D-SB-1308-1-2	D-SB-61REA-1	D-SB-239RE-2-D	D-SB-592A-2	D-VS-B-4-1
D-SB-1281-1-2	D-SB-1294-SS	D-SB-1308-SS	D-SB-61REB-1	SB-239-SS[12]	D-SB-592B-2	D-VS-C-1-1
D-SB-1281-SS	D-SB-1295-1-2	SB-31A-SS	D-SB-61REC-1	SB-239-SS[18]	D-SB-592D-2	D-VS-C-2-1
D-SB-1282-1-2	D-SB-1295-SS	SB-32A-SS	D-SB-61RED-1	SB-239-SS[6]	D-SB-593-2	D-VS-C-3-1
D-SB-1282-SS	D-SB-1296-1-2	F-SB-57RE-1	D-SB-62RE-1	D-SB-240RE-1	D-SB-594-2	D-VS-C-4-1
D-SB-1283-1-2	D-SB-1296-SS	F-SB-57RE-2	D-SB-62RE-2	D-SB-240RE-2	D-SB-595-2	D-VS-C-4-1-DUP
D-SB-1283-SS	D-SB-1297-1-2	F-SB-57RE-2-D	SB-62-SS	SB-240-SS[12]	D-SB-766-SS	D-VS-D-1-1
D-SB-1284-1-2	D-SB-1297-SS	SB-57-SS	D-SB-62REA-1	SB-240-SS[18]	D-SS-767-01	D-VS-D-2-1
D-SB-1284-SS	D-SB-1298-1-2	F-SB-58RE-1	D-SB-62REB-1	SB-240-SS[6]	D-SS-768-01	D-VS-D-3-1
D-SB-1285-1-2	D-SB-1298-SS	F-SB-58RE-2	D-SB-62REC-1	D-SB-240REA-1	D-SS-769-01	D-VS-D-4-1
D-SB-1285-SS	D-SB-1299-1-2	SB-58-SS	D-SB-62RED-1	D-SB-240REB-1	D-SS-770-01	D-VS-E-1-1
D-SB-1286-1-2	D-SB-1299-SS	F-SB-58REA-2	D-SB-63RE-1	D-SB-240REC-1	D-SB-771-SS	D-VS-E-2-1
D-SB-1286-SS	D-SB-1300-1-2	F-SB-58REA-2	D-SB-63RE-2	D-SB-240RED-1	D-SS-772-01	D-VS-E-3-1
D-SB-1287-1-2	D-SB-1300-1-2-D	F-SB-58REA-2-D	D-SB-63RE-2-D	SB-241-SS[12]	D-SS-773-01	D-VS-E-4-1
D-SB-1287-SS	D-SB-1300-SS	F-SB-58REB-2	SB-63-SS	SB-241-SS[18]	D-SB-774-SS	D-VS-F-1-1
D-SB-1288-1-2	D-SB-1301-1-2	F-SB-58REC-2	D-SB-63REA-2	SB-241-SS[6]	D-SS-775-01	D-VS-F-2-1
D-SB-1288-SS	D-SB-1301-SS	F-SB-58RED-2	D-SB-63REB-2	SB-242-SS[12]	D-SS-776-01	D-VS-F-3-1
D-SB-1289-1-2	D-SB-1302-1-2	SB-59-SS	D-SB-63REC-2	SB-242-SS[18]	D-SB-777-SS	D-VS-F-4-1
D-SB-1289-SS	D-SB-1302-SS	D-SB-60RE-1	D-SB-63RED-2	SB-242-SS[6]	D-SS-778-01	
D-SB-1290-1-2	D-SB-1303-1-2	D-SB-60RE-2	SB-64-SS	D-SB-243RE-1	D-SS-779-01	
D-SB-1290-SS	D-SB-1303-SS	SB-60-SS	D-SB-66RE-1	D-SB-243RE-2	D-SS-780-01	
D-SB-1291-1-2	D-SB-1304-1-2	D-SB-60REA-1	D-SB-66RE-2	SB-243-SS[12]	D-SS-781-01	
D-SB-1291-SS	D-SB-1304-SS	D-SB-60REB-1	SB-66-SS	SB-243-SS[18]	D-VS-A-1-1	
D-SB-1292-1-2	D-SB-1305-1-2	D-SB-60REC-1	D-SB-66REA-2	SB-243-SS[6]	D-VS-A-2-1	
D-SB-1292-1-2	D-SB-1305-SS	D-SB-60RED-1	D-SB-66REB-2	D-SB-243REA-2	D-VS-A-3-1	
D-SB-1292-1-2-D	D-SB-1306-1-2	D-SB-61RE-1	D-SB-66REC-2	D-SB-243REB-2	D-VS-A-4-1	

Table L
Occurrence, Distribution, And Selection Of Chemicals Of Potential Concern - Direct Contact With Subsurface Soil
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin, Middle River Complex, Middle River, Maryland
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL - Residential Soil[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
Block D Excluding Panhandle	**Polynuclear Aromatic Hydrocarbons**														
	90-12-0	1-Methylnaphthalene	55	55	ug/kg	D-SB-770-03	1/16	0.55 - 15	55	NA	18,000 C	NA	NA	No	BSL
	91-57-6	2-Methylnaphthalene	11	97	ug/kg	D-SB-770-03	2/16	0.55 - 15	97	NA	24,000 N	NA	NA	No	BSL
	83-32-9	Acenaphthene	4.6 J	690	ug/kg	D-SB-1287-2-3	25/63	0.83 - 8.3	690	NA	360,000 N	NA	NA	No	BSL
	208-96-8	Acenaphthylene	3.5 J	22 J	ug/kg	D-VS-F1-1-2	16/63	0.38 - 15	22	NA	360,000 N[7]	NA	NA	No	BSL
	120-12-7	Anthracene	3.9 J	1,400	ug/kg	D-SB-1287-2-3	39/63	0.87 - 8.5	1,400	NA	1,800,000 N	NA	NA	No	BSL
	--	**Benzo(a)pyrene Equivalents**	1.33	1,777	ug/kg	D-SB-1287-2-3	103/141	0.71 - 410	1,777	NA	**16 C**	NA	NA	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	4.9 J	1,500	ug/kg	D-SB-1287-2-3	81/123	0.7 - 6.9	1,500	NA	**160 C**	NA	NA	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	4.1 J	1,400	ug/kg	D-SB-1287-2-3	92/141	0.71 - 410	1,400	NA	**16 C**	NA	NA	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	5.1 J	1,900	ug/kg	D-SB-1306-2-3	85/123	0.66 - 6.5	1,900	NA	**160 C**	NA	NA	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	6 J	540	ug/kg	D-SB-1287-2-3	30/63	0.38 - 4	540	NA	180,000 N[8]	NA	NA	No	BSL
	207-08-9	Benzo(k)fluoranthene	4.2 J	570	ug/kg	D-SB-1287-2-3	68/123	0.76 - 7.4	570	NA	1,600 C	NA	NA	No	BSL
	218-01-9	Chrysene	4.4 J	1,500	ug/kg	D-SB-1306-2-3	78/123	0.98 - 1.6	1,500	NA	16,000 C	NA	NA	No	BSL
	53-70-3	**Dibenzo(a,h)anthracene**	8.9	230 J	ug/kg	D-SB-60REA-3-D	29/123	0.72 - 15	230	NA	**16 C**	NA	NA	**Yes**	ASL
	206-44-0	Fluoranthene	4.5 J	4,100	ug/kg	D-SB-1287-2-3	51/63	0.61 - 4	4,100	NA	240,000 N	NA	NA	No	BSL
	86-73-7	Fluorene	4.9 J	860	ug/kg	D-SB-1287-2-3	26/63	0.58 - 5.8	860	NA	240,000 N	NA	NA	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	4.1 J	620 J	ug/kg	D-SB-60REA-3-D	65/123	0.38 - 4	620	NA	**160 C**	NA	NA	**Yes**	ASL
	91-20-3	Naphthalene	4.7 J	450	ug/kg	D-SB-1287-2-3	31/63	0.89 - 9.4	450	NA	3,800 C	NA	NA	No	BSL
	85-01-8	Phenanthrene	4.5 J	5,100	ug/kg	D-SB-1287-2-3	50/63	0.81 - 4	5,100	NA	180,000 N[8]	NA	NA	No	BSL
	129-00-0	Pyrene	5.9 J	3,000	ug/kg	D-SB-1287-2-3	53/63	0.49 - 4	3,000	NA	180,000 N	NA	NA	No	BSL
	Metals														
	7487-94-7	**Mercury**	0.028 L	0.38	mg/kg	SB-334-0203	10/18	0.019 - 0.064	0.38	NA	2.3 N[9]	NA	NA	**Yes**	(10)

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data are available.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites (May 2016). Values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Values are for acenaphthene.
8 - Value is for pyrene.
9 - Value is for mercuric chloride (and other mercury salts).
10 - Mercury was retained as a COPC in the original 2012 risk assessment therefore is it also being included in this evaluation.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

Table L
Occurrence, Distribution, And Selection Of Chemicals Of Potential Concern - Direct Contact With Subsurface Soil
Post Excavation Residual Risk Analysis for Block D
Lockheed Martin, Middle River Complex, Middle River, Maryland
Middle River, Maryland

Associated Samples

D-SB-1279-2-3	D-SB-1303-2-3	F-SB-58REB-4-D	D-SB-63REB-4	D-SB-243RED-4	D-SB-594-3
D-SB-1280-2-3	D-SB-1303-2-3-D	F-SB-58REC-4	D-SB-63REC-4	D-SB-243RED-4-D	D-SB-595-3
D-SB-1281-2-3	D-SB-1303-3-4	F-SB-58RED-4	D-SB-63RED-4	SB-318-0203	D-SB-766-03
D-SB-1282-2-3	D-SB-1304-2-3	D-SB-60RE-3	D-SB-66RE-3	SB-319-0203	D-SB-767-03
D-SB-1283-2-3	D-SB-1304-3-4	D-SB-60RE-4	D-SB-66RE-4	SB-320-0203	D-SB-768-03
D-SB-1284-2-3	D-SB-1305-2-3	D-SB-60REA-3	D-SB-66REA-4	SB-321-0203	D-SB-769-03
D-SB-1285-2-3	D-SB-1305-3-4	D-SB-60REA-3-D	D-SB-66REB-4	SB-322-0203	D-SB-770-03
D-SB-1286-2-3	D-SB-1306-2-3	D-SB-60REB-3	D-SB-66REC-4	SB-323-0203	D-SB-771-03
D-SB-1286-2-3-D	D-SB-1306-3-4	D-SB-60REC-3	D-SB-66RED-3	SB-324-0203	D-SB-772-03
D-SB-1287-2-3	D-SB-1307-2-3	D-SB-60RED-3	D-SB-66RED-4	SB-325-0203	D-SB-773-03
D-SB-1288-2-3	D-SB-1307-3-4	D-SB-61RE-3	D-SB-66RED-4-D	SB-326-0203	D-SB-774-03
D-SB-1289-2-3	D-SB-1308-2-3	D-SB-61RE-4	D-SB-239RE-3	SB-327-0203	D-SB-775-03
D-SB-1290-2-3	D-SB-1308-3-4	D-SB-61REA-3	D-SB-239RE-4	SB-328-0203	D-SB-776-03
D-SB-1291-2-3	D-SB-1365-02-03	D-SB-61REA-3	D-SB-240RE-3	SB-329-0203	D-SB-777-03
D-SB-1292-2-3	D-SB-1365-03-04	D-SB-61REA-3-D	D-SB-240RE-4	SB-330-0203	D-SB-778-03
D-SB-1293-2-3	D-SB-1366-02-03	D-SB-61REB-3	D-SB-240REA-3	SB-331-0203	D-SB-779-03
D-SB-1294-2-3	D-SB-1367-03-04	D-SB-61REC-3	D-SB-240REB-3	SB-332-0203	D-SB-780-03
D-SB-1295-2-3	D-SB-1367-03-04	D-SB-61RED-3	D-SB-240REC-3	SB-333-0203	D-SB-781-03
D-SB-1296-2-3	D-SB-1368-02-03	D-SB-62RE-3	D-SB-240REC-3-D	SB-334-0203	D-VS-F1-1-2
D-SB-1296-2-3-D	D-SB-1369-02-03	D-SB-62RE-4	D-SB-240RED-3	SB-335-0203	D-VS-F1-2-2
D-SB-1297-2-3	F-SB-57RE-3	D-SB-62REA-3	D-SB-243RE-3	D-SB-592-3	D-VS-F1-4-2
D-SB-1298-2-3	F-SB-57RE-4	D-SB-62REB-3	D-SB-243RE-4	D-SB-592-4	D-VS-F1-4-2-DUP
D-SB-1299-2-3	F-SB-58RE-3	D-SB-62REC-3	D-SB-243REA-4	D-SB-592A-4	D-VS-F1-3-2
D-SB-1300-2-3	F-SB-58RE-4	D-SB-63RE-3	D-SB-243REB-4	D-SB-592B-4	
D-SB-1301-2-3	F-SB-58REA-4	D-SB-63RE-4	D-SB-243REC-4	D-SB-592D-4	
D-SB-1302-2-3	F-SB-58REB-4	D-SB-63REA-4	D-SB-243RED-4	D-SB-593-3	

Table M

Summary Of Cancer Risks And Hazard Indices - Industrial Land Use
Reasonable Maximum Exposures
Lockheed Martin, Middle River Complex
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Industrial Workers	Surface Soil	Incidental Ingestion	6E-07	--	--	--	0.0003	--
		Dermal Contact	8E-07	--	--	--	0.0009	--
		Inhalation	4E-09	--	--	--	0.00006	--
		Total	1E-06	--	--	--	0.001	--
	Subsurface Soil	Incidental Ingestion	3E-07	--	--	--	0.000001	--
		Dermal Contact	4E-07	--	--	--	0.000001	--
		Inhalation	2E-09	--	--	--	0.00006	--
		Total	7E-07	--	--	--	0.0007	--

Chemicals included in the analysis are those chemicals indicated in Tables K and L as being detected at concentrations exceeding the USEPA Regional Screening Levels (May 2016) or were retained as chemicals of potential concern (COPCs) in the original 2012 risk assessment for the tax block soils as a whole, which include benzo(a)pyrene equivalents, naphthalene, nickel, and hexavalent chromium for surface soil and benzo(a)pyrene equivalents, naphthalene, and mercury for subsurface soil.

Table N

Summary Of Cancer Risks And Hazard Indices - Residential Land Use
Reasonable Maximum Exposures
Lockheed Martin, Middle River Complex
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Child Residents	Surface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	Hexavalent Chromium	0.01	--
		Dermal Contact	8E-06	--	--	Benzo(a)pyrene Equivalents, Hexavalent Chromium	0.008	--
		Inhalation	1E-08	--	--	--	0.0002	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Hexavalent Chromium	0.02	--
	Subsurface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	0.00003	--
		Dermal Contact	4E-06	--	--	Benzo(a)pyrene Equivalents	0.000009	--
		Inhalation	2E-09	--	--	--	0.0002	--
		Total	1E-05	--	--	Benzo(a)pyrene Equivalents	0.0002	--
Adolescent Residents	Surface Soil	Incidental Ingestion	5E-06	--	--	Benzo(a)pyrene Equivalents	0.002	--
		Dermal Contact	2E-06	--	--	--	0.002	--
		Inhalation	1E-08	--	--	--	0.0002	--
		Total	7E-06	--	--	Benzo(a)pyrene Equivalents	0.004	--
	Subsurface Soil	Incidental Ingestion	3E-06	--	--	Benzo(a)pyrene Equivalents	0.000006	--
		Dermal Contact	1E-06	--	--	--	0.000002	--
		Inhalation	4E-09	--	--	--	0.0002	--
		Total	4E-06	--	--	Benzo(a)pyrene Equivalents	0.0002	--
Adult Residents	Surface Soil	Incidental Ingestion	7E-07	--	--	--	0.001	--
		Dermal Contact	5E-07	--	--	--	0.001	--
		Inhalation	8E-09	--	--	--	0.0002	--
		Total	1E-06	--	--	--	0.002	--
	Subsurface Soil	Incidental Ingestion	4E-07	--	--	--	0.000003	--
		Dermal Contact	2E-07	--	--	--	0.000002	--
		Inhalation	4E-09	--	--	--	0.0002	--
		Total	6E-07	--	--	--	0.0002	--
Lifelong Residents (Child and Adult)	Surface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	Hexavalent Chromium	NA	--
		Dermal Contact	1E-05	--	--	Benzo(a)pyrene Equivalents, Hexavalent Chromium	NA	--
		Inhalation	3E-08	--	--	--	NA	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Hexavalent Chromium	NA	--
	Subsurface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	NA	--
		Dermal Contact	5E-06	--	--	Benzo(a)pyrene Equivalents	NA	--
		Inhalation	1E-08	--	--	--	NA	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	--	NA	--

Chemicals included in the analysis are those chemicals indicated in Tables K and L as being detected at concentrations exceeding the USEPA Regional Screening Levels (May 2016) or were retained as chemicals of potential concern (COPCs) in the original 2012 risk assessment for the tax block soils as a whole, which include benzo(a)pyrene equivalents, naphthalene, nickel, and hexavalent chromium for surface soil and benzo(a)pyrene equivalents, naphthalene, and mercury for subsurface soil.
NA - Not applicable.

FIGURES

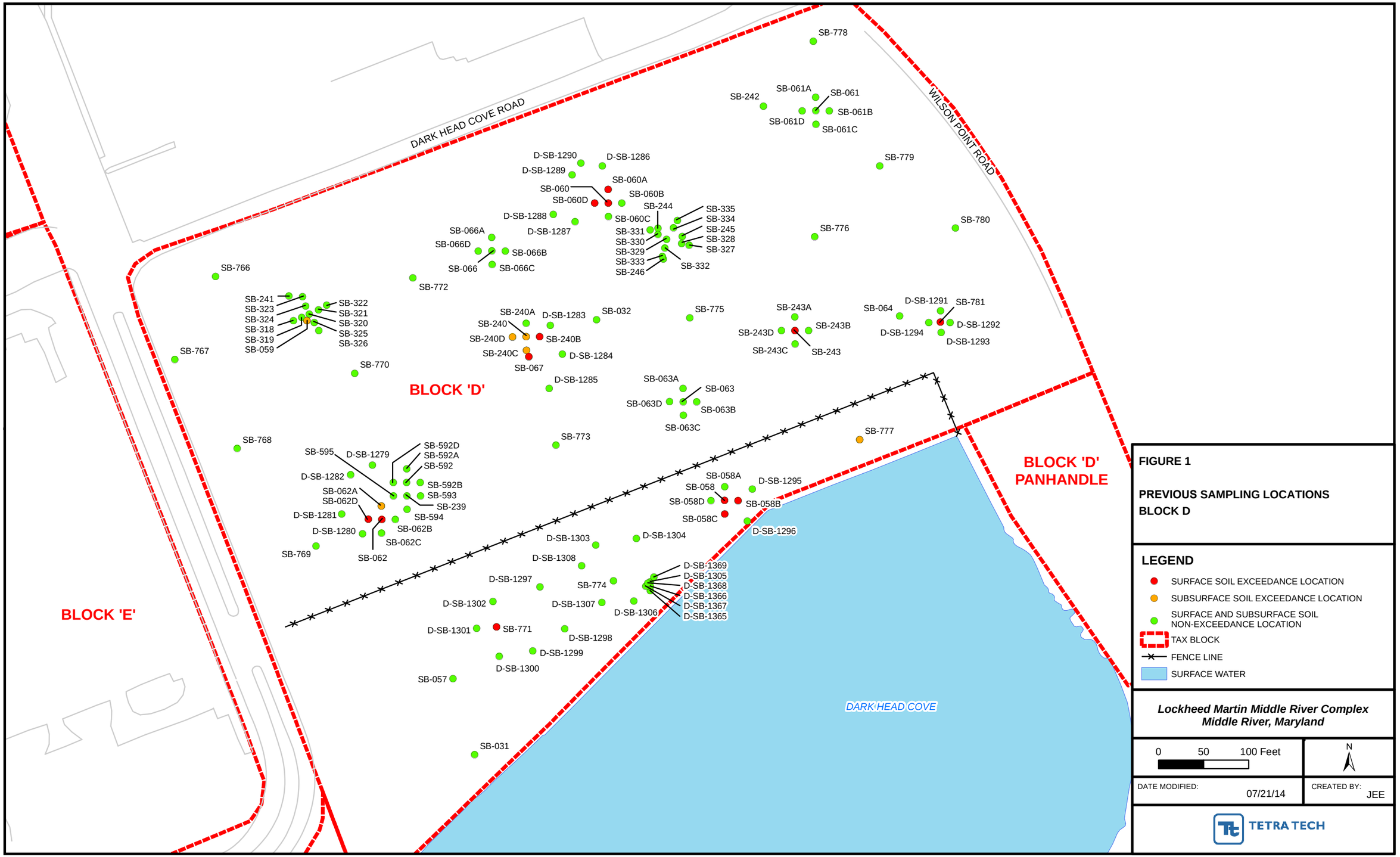


FIGURE 1

PREVIOUS SAMPLING LOCATIONS
BLOCK D

LEGEND

- SURFACE SOIL EXCEEDANCE LOCATION
- SUBSURFACE SOIL EXCEEDANCE LOCATION
- SURFACE AND SUBSURFACE SOIL NON-EXCEEDANCE LOCATION
- TAX BLOCK
- FENCE LINE
- SURFACE WATER

Lockheed Martin Middle River Complex
Middle River, Maryland

0 50 100 Feet

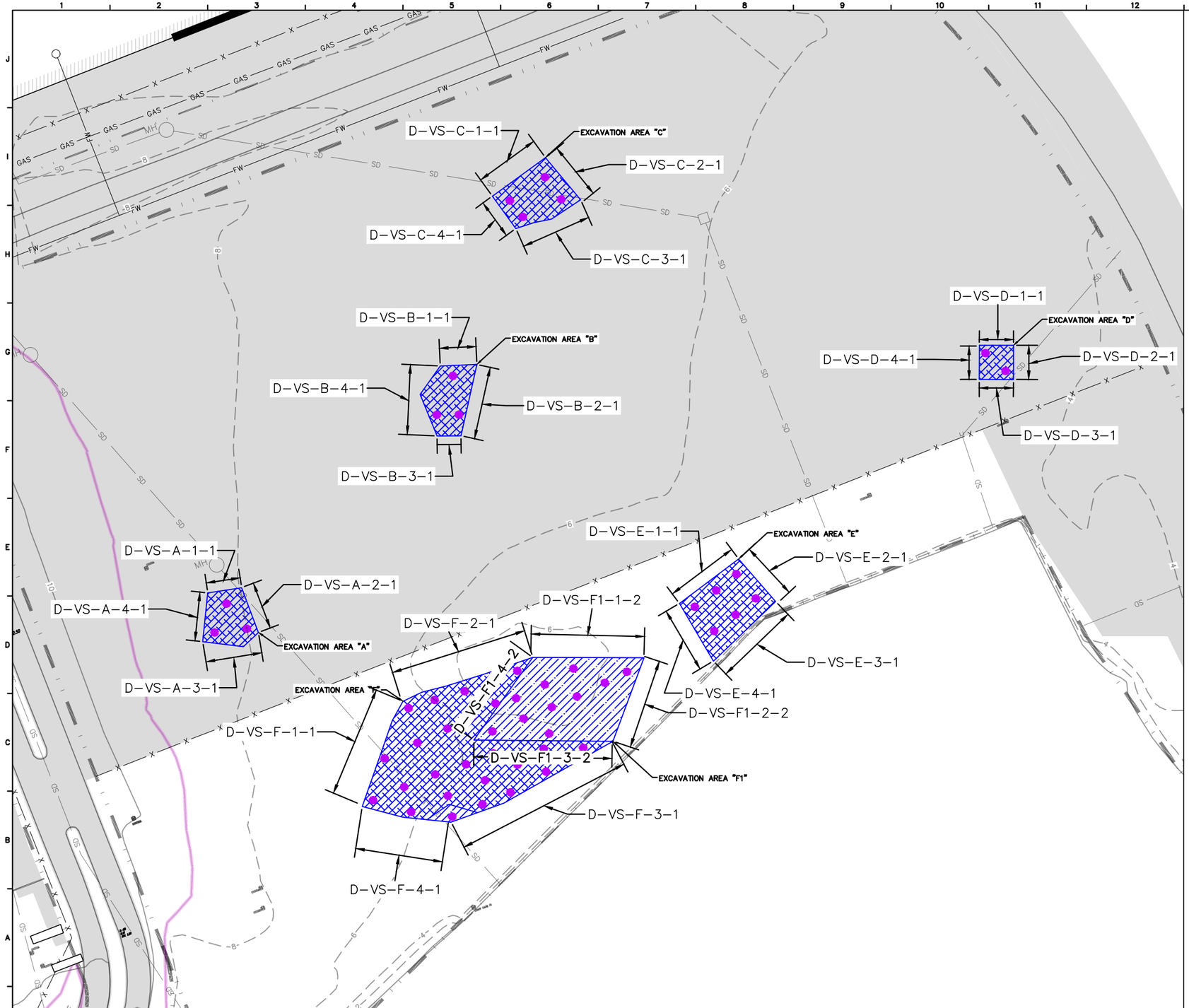
N

DATE MODIFIED: 07/21/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\block_d_samplocs_jul2014.mxd)
07/21/14 -- JEE



LEGEND:

- VERIFICATION SIDEWALL SAMPLE LOCATION
- VERIFICATION BASE SAMPLE LOCATION (SAMPLE IDENTIFICATION LABELS PRESENTED ON FIGURE 4-2)
- EXCAVATION BOUNDARY 2-FOOT DEPTH
- EXCAVATION BOUNDARY 3-FOOT DEPTH
- ASPHALT PAVEMENT
- CONTOUR LINE
- BLOCK BOUNDARY
- 100-FT FLOOD PLAIN LINE
- SD — STORM DRAIN
- GAS — GAS LINE
- JUNCTION BOX
- MH — MANHOLE

GENERAL NOTES:
1. EXCAVATION BOUNDARIES BASED ON 100% SOIL REMEDIAL ACTION DESIGN (TETRA TECH INC., 2015)
2. SIDEWALL VERIFICATION SAMPLES WERE COLLECTED EVERY 100-FEET.
3. BASE VERIFICATION SAMPLES WERE COLLECTED EVERY 625 SQUARE FOOT.

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528-5552 | F: (301) 528-3000

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

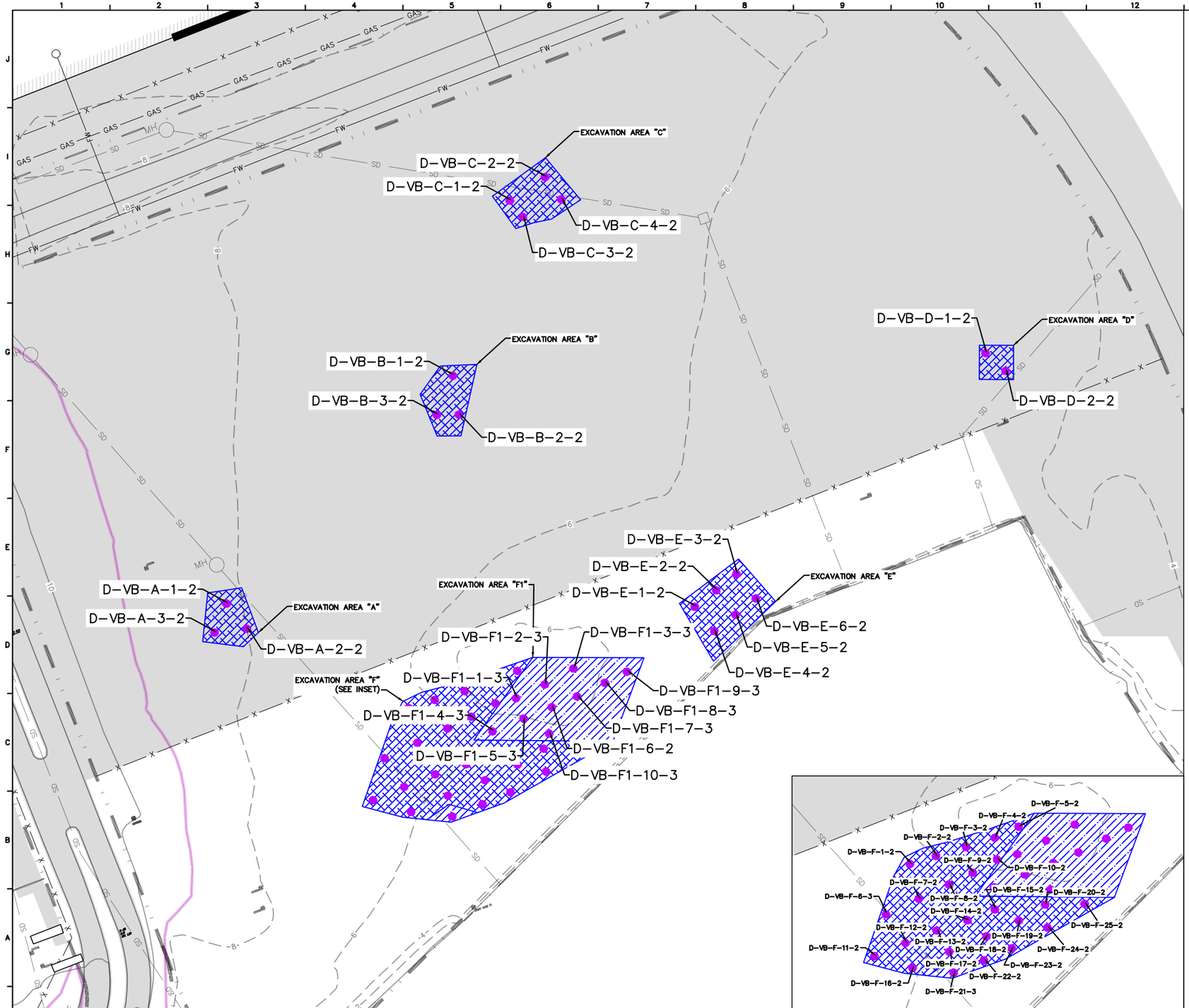
SOIL REMEDIAL ACTION
VERIFICATION SIDEWALL SAMPLING LOCATIONS
BLOCK D

DATE:	02/11/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

COPYRIGHT TETRA TECH INC.

FIGURE 2

K:\CADD\MRC\112IC07483\Construction Completion\Block D\AS BUILT FIGURES-Block D.dwg IVANNA.GOLDSBERRY 2/11/2016 7:27:35 PM



LEGEND:

- VERIFICATION BASE SAMPLE LOCATION
- EXCAVATION BOUNDARY 2–FOOT DEPTH
- EXCAVATION BOUNDARY 3–FOOT DEPTH
- ASPHALT PAVEMENT
- CONTOUR LINE
- BLOCK BOUNDARY
- 100–FT FLOOD PLAIN LINE
- SD — STORM DRAIN
- GAS — GAS LINE
- JUNCTION BOX
- MH — MANHOLE

GENERAL NOTES:

1. EXCAVATION BOUNDARIES BASED ON 100% SOIL REMEDIAL ACTION DESIGN (TETRA TECH INC., 2015)
2. BASE VERIFICATION SAMPLES WERE COLLECTED EVERY 625 SQUARE FOOT.
3. SIDEWALL VERIFICATION SAMPLES ARE PRESENTED ON FIGURE 4–1

TETRA TECH
www.tetratech.com
20251 CENTURY BLVD
GERMANTOWN, MD 20874
T: (301) 528–5552 | F: (301) 528–3000

MARK	DATE	DESCRIPTION	BY

LOCKHEED MARTIN
MIDDLE RIVER COMPLEX

SOIL REMEDIAL ACTION
VERIFICATION BASE SAMPLING LOCATIONS
BLOCK D

DATE:	02/11/2016
PROJECT NO.:	112IC07483
DESIGNED BY:	ISG
DRAWN BY:	ISG
CHECKED BY:	SAN
SHEET:	1 OF 1

COPYRIGHT TETRA TECH INC.

FIGURE 3

K:\CADD\MRC\112IC07483\Construction Completion\Block D\AS BUILT FIGURES–Block D.dwg IVANNA.GOLDSBERRY 2/11/2016 7:27:35 PM

ATTACHMENTS

ATTACHMENT A

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-064	SB-64-SS	0 - 0	4,200	1E-05	3E-04	Site UCL after excavation is 408 µg/kg which is below the remedial goal of 2,900 µg/kg.
Sub-Area E	D-VS-E-3-1	1 - 1	2,900	7E-06	2E-04	
SB-243	SB-243-SS[6]	0.5 - 0.5	85	2E-07	6E-06	
	D-SB-243RE-1	1 - 1	3,300	8E-06	2E-04	
	SB-243-SS[12]	1 - 1	160	4E-07	1E-05	
	SB-243-SS[18]	1.5 - 1.5	91	2E-07	6E-06	
	D-SB-243RE-2	2 - 2	20	5E-08	1E-06	
SB-062C	D-SB-62REC-1	1 - 1	2,600	6E-06	2E-04	
Sub-Area A	***D-VS-A-3-1***	***1 - 1***	***1,500***	***4E-06***	***1E-04***	
SB-066	SB-66-SS	0 - 0	0.64	6E-07	1E-05	
	D-SB-66RE-1	1 - 1	53	1E-07	4E-06	
	D-SB-66RE-2	2 - 2	1,500	3E-06	1E-04	
Sub-Area E	***D-VS-E-1-1***	***1 - 1***	***1,400***	***3E-06***	***1E-04***	
D-SB-1301	D-SB-1301-SS	0 - 1	620	1E-06	4E-05	
	D-SB-1301-1-2	1 - 2	870	2E-06	6E-05	
Sub-Area A	***D-VS-A-4-1***	***1 - 1***	***750***	***2E-06***	***5E-05***	
D-SB-1287	D-SB-1287-SS	0 - 1	720	2E-06	5E-05	
	D-SB-1287-1-2	1 - 2	140	3E-07	1E-05	
SB-062B	D-SB-62REB-1	1 - 1	550	1E-06	4E-05	
SB-239	SB-239-SS[6]	0.5 - 0.5	130	3E-07	9E-06	
	SB-239-SS[12]	1 - 1	340	8E-07	2E-05	
	SB-239-SS[18]	1.5 - 1.5	540	1E-06	4E-05	
	D-SB-239RE-2-AVG	2 - 2	160	4E-07	1E-05	
Sub-Area E	***D-VS-E-2-1***	***1 - 1***	***470***	***1E-06***	***3E-05***	
SB-777	D-SB-777-SS	0 - 1	460	1E-06	3E-05	
D-SB-1281	D-SB-1281-SS	0 - 1	390	9E-07	3E-05	
	D-SB-1281-1-2	1 - 2	9.3	2E-08	7E-07	
SB-061C	D-SB-61REC-1	1 - 1	390	9E-07	3E-05	
SB-240A	D-SB-240REA-1	1 - 1	370	9E-07	3E-05	
Sub-Area F	***D-VS-F-4-1***	***1 - 1***	***360***	***8E-07***	***3E-05***	
D-SB-1304	D-SB-1304-SS	0 - 1	360	8E-07	3E-05	
	D-SB-1304-1-2	1 - 2	8.7	2E-08	6E-07	
Sub-Area E	***D-VS-E-4-1***	***1 - 1***	***270***	***6E-07***	***2E-05***	
Sub-Area C	***D-VS-C-1-1***	***1 - 1***	***240***	***6E-07***	***2E-05***	
D-SB-1286	D-SB-1286-SS	0 - 1	230	5E-07	2E-05	
	D-SB-1286-1-2	1 - 2	0.73 U	9E-10	3E-08	
SB-242	SB-242-SS[6]	0.5 - 0.5	180	4E-07	1E-05	
	SB-242-SS[12]	1 - 1	150	4E-07	1E-05	
	SB-242-SS[18]	1.5 - 1.5	161 U	2E-07	6E-06	
D-SB-1288	D-SB-1288-SS	0 - 1	51	1E-07	4E-06	
	D-SB-1288-1-2	1 - 2	170	4E-07	1E-05	
SB-241	SB-241-SS[6]	0.5 - 0.5	160	4E-07	1E-05	
	SB-241-SS[12]	1 - 1	160	4E-07	1E-05	
	SB-241-SS[18]	1.5 - 1.5	140	3E-07	1E-05	
Sub-Area C	***D-VS-C-2-1***	***1 - 1***	***160***	***4E-07***	***1E-05***	
Sub-Area F	***D-VS-F-1-1***	***1 - 1***	***160***	***4E-07***	***1E-05***	
SB-061A	D-SB-61REA-1	1 - 1	150	4E-07	1E-05	
D-SB-1280	D-SB-1280-SS	0 - 1	140	3E-07	1E-05	
	D-SB-1280-1-2	1 - 2	15	4E-08	1E-06	
SB-063	SB-63-SS	0 - 0	0.53	5E-07	1E-05	
	D-SB-63RE-1	1 - 1	140	3E-07	1E-05	
	D-SB-63RE-2-AVG	2 - 2	67	2E-07	5E-06	
SB-243A	D-SB-243REA-2	2 - 2	130	3E-07	9E-06	
Sub-Area C	***D-VS-C-3-1***	***1 - 1***	***110***	***3E-07***	***8E-06***	
Sub-Area F	***D-VS-F-3-1***	***1 - 1***	***110***	***3E-07***	***8E-06***	
SB-594	D-SB-594-2	2 - 2	92	2E-07	7E-06	
SB-595	D-SB-595-2	2 - 2	85	2E-07	6E-06	
SB-061D	D-SB-61RED-1	1 - 1	82	2E-07	6E-06	
SB-768	D-SS-768-01	0 - 1	78	2E-07	6E-06	
Sub-Area D	***D-VS-D-1-1***	***1 - 1***	***74***	***2E-07***	***5E-06***	
D-SB-1279	D-SB-1279-SS	0 - 1	59	1E-07	4E-06	
	D-SB-1279-1-2	1 - 2	33	8E-08	2E-06	
SB-592D	D-SB-592D-2	2 - 2	53	1E-07	4E-06	
Sub-Area C	***D-VS-C-4-1-AVG***	***1 - 1***	***51***	***1E-07***	***4E-06***	
SB-772	D-SS-772-01	0 - 1	45	1E-07	3E-06	
SB-240D	D-SB-240RED-1	1 - 1	45	1E-07	3E-06	

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-769	D-SS-769-01	0 - 1	39	9E-08	3E-06	
D-SB-1290	D-SB-1290-SS	0 - 1	38	9E-08	3E-06	
	D-SB-1290-1-2	1 - 2	0.76 U	9E-10	3E-08	
SB-066C	D-SB-66REC-2	2 - 2	38	9E-08	3E-06	
SB-592	D-SB-592-2	2 - 2	37	9E-08	3E-06	
D-SB-1289	D-SB-1289-SS	0 - 1	33	8E-08	2E-06	
	D-SB-1289-1-2	1 - 2	0.74 U	9E-10	3E-08	
SB-593	D-SB-593-2	2 - 2	33	8E-08	2E-06	
D-SB-1282	D-SB-1282-SS	0 - 1	32	8E-08	2E-06	
	D-SB-1282-1-2	1 - 2	7.7	2E-08	5E-07	
SB-592B	D-SB-592B-2	2 - 2	31	7E-08	2E-06	
SB-767	D-SS-767-01	0 - 1	31	7E-08	2E-06	
Sub-Area A	***D-VS-A-1-1***	***1 - 1***	***29***	***7E-08***	***2E-06***	
Sub-Area D	***D-VS-D-3-1***	***1 - 1***	***24***	***6E-08***	***2E-06***	
SB-061B	D-SB-61REB-1	1 - 1	23	5E-08	2E-06	
SB-057	SB-57-SS	0 - 0	0.06	2E-07	4E-06	
	F-SB-57RE-1	1 - 1	20	5E-08	1E-06	
	F-SB-57RE-2-AVG	2 - 2	1.5 U	2E-09	5E-08	
Sub-Area B	***D-VS-B-2-1***	***1 - 1***	***19***	***5E-08***	***1E-06***	
SB-770	D-SS-770-01	0 - 1	18	4E-08	1E-06	
SB-063A	D-SB-63REA-2	2 - 2	17	4E-08	1E-06	
SB-066A	D-SB-66REA-2	2 - 2	17	4E-08	1E-06	
SB-061	SB-61-SS	0 - 0	4200 U	5E-06	2E-04	
	D-SB-61RE-1	1 - 1	17	4E-08	1E-06	
	D-SB-61RE-2-AVG	2 - 2	5.9	1E-08	4E-07	
Sub-Area D	***D-VS-D-4-1***	***1 - 1***	***17***	***4E-08***	***1E-06***	
SB-243D	D-SB-243RED-2	2 - 2	16	4E-08	1E-06	
SB-243C	D-SB-243REC-2	2 - 2	14	3E-08	1E-06	
Sub-Area F	***D-VS-F-2-1***	***1 - 1***	***14***	***3E-08***	***1E-06***	
Sub-Area B	***D-VS-B-1-1***	***1 - 1***	***13***	***3E-08***	***9E-07***	
D-SB-1284	D-SB-1284-SS	0 - 1	11	3E-08	8E-07	
	D-SB-1284-1-2	1 - 2	0.77 U	9E-10	3E-08	
SB-062A	D-SB-62REA-1	1 - 1	9.82	2E-08	7E-07	
D-SB-1305	D-SB-1305-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1299	D-SB-1299-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1299-1-2	1 - 2	9.82	2E-08	7E-07	
SB-060	SB-60-SS	0 - 0	9.82	2E-07	5E-06	
	D-SB-60RE-1	1 - 1	9.82	2E-08	7E-07	
	D-SB-60RE-2	2 - 2	9.82	2E-08	7E-07	
SB-060A	D-SB-60REA-1	1 - 1	9.82	2E-08	7E-07	
SB-062D	D-SB-62RED-1	1 - 1	9.82	2E-08	7E-07	
SB-240B	D-SB-240REB-1	1 - 1	9.82	2E-08	7E-07	
SB-774	D-SB-774-SS	0 - 1	9.82	2E-08	7E-07	
SB-771	D-SB-771-SS	0 - 1	9.82	2E-08	7E-07	
SB-060D	D-SB-60RED-1	1 - 1	9.82	2E-08	7E-07	
SB-067	SB-67-SS	0 - 0	9.82	1E-07	3E-06	
SB-058	SB-58-SS	0 - 0	9.82	4E-07	1E-05	
	F-SB-58RE-1	1 - 1	9.82	2E-08	7E-07	
	F-SB-58RE-2	2 - 2	9.82	2E-08	7E-07	
SB-781	D-SS-781-01	0 - 1	9.82	2E-08	7E-07	
D-SB-1296	D-SB-1296-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1296-1-2	1 - 2	9.82	2E-08	7E-07	
SB-062	SB-62-SS	0 - 0	9.82	2E-07	5E-06	
	D-SB-62RE-1	1 - 1	9.82	2E-08	7E-07	
	D-SB-62RE-2	2 - 2	9.82	2E-08	7E-07	
D-SB-1295	D-SB-1295-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1295-1-2	1 - 2	9.82	2E-08	7E-07	
SB-058C	F-SB-58REC-2	2 - 2	9.82	2E-08	7E-07	
D-SB-1307	D-SB-1307-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1307-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1297	D-SB-1297-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1297-1-2	1 - 2	9.82	2E-08	7E-07	
SB-058B	F-SB-58REB-2	2 - 2	9.82	2E-08	7E-07	

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-240	D-SB-240RE-1	1 - 1	9.82	2E-08	7E-07	
	SB-240-SS[6]	0.5 - 0.5	9.82	2E-08	7E-07	
	SB-240-SS[12]	1 - 1	9.82	2E-08	7E-07	
	SB-240-SS[18]	1.5 - 1.5	9.82	2E-08	7E-07	
	D-SB-240RE-2	2 - 2	9.82	2E-08	7E-07	
D-SB-1305	D-SB-1305-SS	0 - 1	9.82	2E-08	7E-07	
D-SB-1306	D-SB-1306-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1306-1-2	1 - 2	9.82	2E-08	7E-07	
SB-060C	D-SB-60REC-1	1 - 1	9.82	2E-08	7E-07	
D-SB-1308	D-SB-1308-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1308-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1302	D-SB-1302-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1302-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1298	D-SB-1298-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1298-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1300	D-SB-1300-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1300-1-2-AVG	1 - 2	9.82	2E-08	7E-07	
SB-058D	F-SB-58RED-2	2 - 2	9.82	2E-08	7E-07	
SB-058A	F-SB-58REA-2-AVG	2 - 2	9.82	2E-08	7E-07	
SB-240C	D-SB-240REC-1	1 - 1	9.82	2E-08	7E-07	
D-SB-1303	D-SB-1303-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1303-1-2	1 - 2	9.82	2E-08	7E-07	
SB-060B	D-SB-60REB-1	1 - 1	9.82	2E-08	7E-07	
D-SB-1293	D-SB-1293-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1293-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1294	D-SB-1294-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1294-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1283	D-SB-1283-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1283-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1292	D-SB-1292-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1292-1-2	1 - 2	9.82	2E-08	7E-07	
D-SB-1291	D-SB-1291-SS	0 - 1	9.82	2E-08	7E-07	
	D-SB-1291-1-2	1 - 2	9.82	2E-08	7E-07	
SB-592A	D-SB-592A-2	2 - 2	7.1	2E-08	5E-07	
SB-779	D-SS-779-01	0 - 1	5.2	1E-08	4E-07	
SB-063C	D-SB-63REC-2	2 - 2	2.7	6E-09	2E-07	
SB-066B	D-SB-66REB-2	2 - 2	2.6	6E-09	2E-07	
Sub-Area D	***D-VS-D-2-1***	***1 - 1***	***1.9***	***6E-09***	***1E-07***	
Sub-Area B	***D-VS-B-4-1***	***1 - 1***	***1.6***	***4E-09***	***1E-07***	
Sub-Area A	***D-VS-A-2-1***	***1 - 1***	***1.3***	***3E-09***	***9E-08***	
SB-775	D-SS-775-01	0 - 1	4 U	5E-09	1E-07	
SB-776	D-SS-776-01	0 - 1	4 U	5E-09	1E-07	
SB-780	D-SS-780-01	0 - 1	4 U	5E-09	1E-07	
SB-032	SB-32A-SS	0 - 0	3700 U	5E-06	1E-04	
SB-031	SB-31A-SS	0 - 0	370 U	6E-07	2E-05	
SB-059	SB-59-SS	0 - 0	3500 U	4E-06	1E-04	
SB-773	D-SS-773-01	0 - 1	3.9 U	5E-09	1E-07	
SB-778	D-SS-778-01	0 - 1	3.8 U	5E-09	1E-07	
SB-766	D-SB-766-SS	0 - 1	3.6 U	4E-09	1E-07	
SB-063D	D-SB-63RED-2	2 - 2	1.6 U	2E-09	6E-08	
SB-243B	D-SB-243REB-2	2 - 2	1.6 U	2E-09	6E-08	
SB-063B	D-SB-63REB-2	2 - 2	1.5 U	2E-09	5E-08	
SB-066D	D-SB-66RED-2	2 - 2	1.5 U	2E-09	5E-08	
Sub-Area B	***D-VS-B-3-1***	***1 - 1***	***0.75 U***	***9E-10***	***3E-08***	
D-SB-1285	D-SB-1285-SS	0 - 1	0.73 U	1E-09	3E-08	
D-SB-1285	D-SB-1285-1-2	1 - 2	0.73 U	9E-10	3E-08	

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

1 - Sample locations are listed in order from highest to lowest benzo(a)pyrene (BaPEq) concentrations.
2 - One half the non-detected value was used for the calculation of the benzo(a)pyrene equivalents. If all concentrations were non-detect then the detection limit for benzo(a)pyrene was used as the benzo(a)pyrene equivalent concentration. Original and duplicate samples were averaged when calculating the benzo(a)pyrene equivalent concentration.
3 - Total incremental lifetime cancer risk from exposure to all chemicals of potential concern in soil.

Samples that were excavated.
Verification Samples

BaPEq - benzo(a)pyrene equivalent
µg/kg - microgram per kilogram
ILCR - incremental lifetime cancer risk
U - not detected
UCL - upper confidence level

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
D-SB-1287	D-SB-1287-2-3	2 - 3	1776.55	4E-06	1E-04	Site UCL after excavation is 296 µg/kg which is below the remedial goal of 2,900 µg/kg.
D-SB-1306	D-SB-1306-2-3	2 - 3	1577.5	4E-06	1E-04	
	D-SB-1306-3-4	3 - 4	1116.76	3E-06	8E-05	
Sub-Area F1	***D-VS-F1-1-2***	***2 - 2***	***1400***	***3E-06***	***1E-04***	
SB-777	D-SB-777-03	3 - 3	1020.88	2E-06	7E-05	
SB-321	SB-321-0203	2 - 3	940	2E-06	7E-05	
SB-060A	D-SB-60REA-3-AVG	3 - 3	851.785	2E-06	6E-05	
SB-592	D-SB-592-3	3 - 3	850.7	2E-06	6E-05	
	D-SB-592-4	4 - 4	930.87	2E-06	7E-05	
D-SB-1307	D-SB-1307-2-3	2 - 3	798.08	2E-06	6E-05	
	D-SB-1307-3-4	3 - 4	67.49	2E-07	5E-06	
SB-770	D-SB-770-03	3 - 3	668.54	2E-06	5E-05	
D-SB-1308	D-SB-1308-2-3	2 - 3	291.05	7E-07	2E-05	
	D-SB-1308-3-4	3 - 4	406.3	1E-06	3E-05	
D-SB-1296	D-SB-1296-2-3-AVG	2 - 3	390.794	9E-07	3E-05	
SB-063	D-SB-63RE-3	3 - 3	379.27	9E-07	3E-05	
	D-SB-63RE-4	4 - 4	156.62	4E-07	1E-05	
D-SB-1302	D-SB-1302-2-3	2 - 3	263.81	6E-07	2E-05	
SB-240	D-SB-240RE-3	3 - 3	203.47	5E-07	1E-05	
	D-SB-240RE-4	4 - 4	134.89	3E-07	1E-05	
SB-060D	D-SB-60RED-3	3 - 3	202.77	5E-07	1E-05	
SB-592B	D-SB-592B-4	4 - 4	185.237	4E-07	1E-05	
SB-062C	D-SB-62REC-3	3 - 3	173.63	4E-07	1E-05	
SB-328	SB-328-0203	2 - 3	170	4E-07	1E-05	
D-SB-1297	D-SB-1297-2-3	2 - 3	160.189	4E-07	1E-05	
D-SB-1298	D-SB-1298-2-3	2 - 3	159.01	4E-07	1E-05	
D-SB-1301	D-SB-1301-2-3	2 - 3	157.88	4E-07	1E-05	
Sub-Area F1	***D-VS-F1-2-2***	***2 - 2***	***140***	***3E-07***	***1E-05***	
SB-771	D-SB-771-03	3 - 3	130.92	3E-07	9E-06	
SB-327	SB-327-0203	2 - 3	130	3E-07	9E-06	
D-SB-1289	D-SB-1289-2-3	2 - 3	114.935	3E-07	8E-06	
SB-330	SB-330-0203	2 - 3	110	3E-07	8E-06	
D-SB-1299	D-SB-1299-2-3	2 - 3	98.705	2E-07	7E-06	
D-SB-1282	D-SB-1282-2-3	2 - 3	97.249	2E-07	7E-06	
SB-058D	F-SB-58RED-4	4 - 4	92.633	2E-07	7E-06	
SB-334	SB-334-0203	2 - 3	88	2E-07	6E-06	
SB-593	D-SB-593-3	3 - 3	86.572	2E-07	6E-06	
SB-243A	D-SB-243REA-4	4 - 4	85.854	2E-07	6E-06	
SB-594	D-SB-594-3	3 - 3	83.876	2E-07	6E-06	
SB-325	SB-325-0203	2 - 3	72	2E-07	5E-06	
SB-240C	D-SB-240REC-3-AVG	3 - 3	67.3835	2E-07	5E-06	
SB-062B	D-SB-62REB-3	3 - 3	62.257	1E-07	4E-06	
SB-066D	D-SB-66RED-3	3 - 3	62.162	2E-07	4E-06	
SB-243	D-SB-243RE-3	3 - 3	61.769	1E-07	4E-06	
	D-SB-243RE-4	4 - 4	21.5225	5E-08	2E-06	
SB-062A	D-SB-62REA-3	3 - 3	61.267	1E-07	4E-06	
D-SB-1303	D-SB-1303-2-3-AVG	2 - 3	2.704825	6E-09	2E-07	
	D-SB-1303-3-4	3 - 4	59.997	1E-07	4E-06	
SB-776	D-SB-776-03	3 - 3	58.781	1E-07	4E-06	
Sub-Area F1	***D-VS-F1-3-2***	***2 - 2***	***57.763***	***1E-07***	***4E-06***	
SB-592D	D-SB-592D-4	4 - 4	52.335	1E-07	4E-06	
D-SB-1288	D-SB-1288-2-3	2 - 3	50.469	1E-07	4E-06	
SB-240D	D-SB-240RED-3	3 - 3	49.561	1E-07	4E-06	
SB-240A	D-SB-240REA-3	3 - 3	46.786	1E-07	3E-06	
SB-063C	D-SB-63REC-4	4 - 4	46.257	1E-07	3E-06	
SB-062	D-SB-62RE-3	3 - 3	44.104	1E-07	3E-06	
	D-SB-62RE-4	4 - 4	69.402	2E-07	5E-06	
SB-773	D-SB-773-03	3 - 3	38.165	9E-08	3E-06	
SB-332	SB-332-0203	2 - 3	38	9E-08	3E-06	
SB-240B	D-SB-240REB-3	3 - 3	37.862	9E-08	3E-06	
D-SB-1285	D-SB-1285-2-3	2 - 3	36.541	1E-07	3E-06	
SB-058B	F-SB-58REB-4-AVG	4 - 4	29.833	7E-08	2E-06	
SB-060	D-SB-60RE-3	3 - 3	3.4097	8E-09	2E-07	
	D-SB-60RE-4	4 - 4	27.276	6E-08	2E-06	
SB-329	SB-329-0203	2 - 3	27	6E-08	2E-06	
	D-SB-239RE-4	4 - 4	26.245	6E-08	2E-06	

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-326	SB-326-0203	2 - 3	25	6E-08	2E-06	
SB-058C	F-SB-58REC-4	4 - 4	24.95	6E-08	2E-06	
SB-243D	D-SB-243RED-4	4 - 4	21.643	5E-08	2E-06	
SB-331	SB-331-0203	2 - 3	20	5E-08	1E-06	
SB-335	SB-335-0203	2 - 3	20	5E-08	1E-06	
SB-595	D-SB-595-3	3 - 3	19.635	5E-08	1E-06	
SB-058A	F-SB-58REA-4	4 - 4	15.9155	4E-08	1E-06	
SB-592A	D-SB-592A-4	4 - 4	15.362	4E-08	1E-06	
SB-319	SB-319-0203	2 - 3	15	4E-08	1E-06	
D-SB-1284	D-SB-1284-2-3	2 - 3	14.33905	3E-08	1E-06	
SB-322	SB-322-0203	2 - 3	13	3E-08	9E-07	
SB-063A	D-SB-63REA-4	4 - 4	11.45555	3E-08	8E-07	
D-SB-1305	D-SB-1305-2-3	2 - 3	9.82	2E-08	7E-07	
	D-SB-1305-3-4	3 - 4	9.82	2E-08	7E-07	
D-SB-1365	D-SB-1365-02-03	2 - 3	9.82	2E-08	7E-07	
	D-SB-1365-03-04	3 - 4	580.08	1E-06	4E-05	
D-SB-1366	D-SB-1366-02-03	2 - 3	9.82	2E-08	7E-07	
D-SB-1367	D-SB-1367-02-03	2 - 3	9.82	2E-08	7E-07	
	D-SB-1367-03-04	3 - 4	55.758	1E-07	4E-06	
D-SB-1368	D-SB-1368-02-03	2 - 3	9.82	2E-08	7E-07	
D-SB-1369	D-SB-1369-02-03	2 - 3	9.82	2E-08	7E-07	
SB-774	D-SB-774-03	3 - 3	9.82	2E-08	7E-07	
D-SB-1279	D-SB-1279-2-3	2 - 3	8.9769	2E-08	6E-07	
SB-066D	D-SB-66RED-4-AVG	4 - 4	8.365275	2E-08	6E-07	
D-SB-1304	D-SB-1304-2-3	2 - 3	7.84155	2E-08	6E-07	
	D-SB-1304-3-4	3 - 4	0.95 U	1E-09	3E-08	
D-SB-1281	D-SB-1281-2-3	2 - 3	7.7431	2E-08	5E-07	
D-SB-1290	D-SB-1290-2-3	2 - 3	7.46145	2E-08	5E-07	
D-SB-1293	D-SB-1293-2-3	2 - 3	4.6756	1E-08	3E-07	
SB-066B	D-SB-66REB-4	4 - 4	3.335	8E-09	2E-07	
SB-239	D-SB-239RE-3	3 - 3	3.285	8E-09	2E-07	
SB-061	D-SB-61RE-3	3 - 3	2.935	7E-09	2E-07	
	D-SB-61RE-4	4 - 4	3.235	8E-09	2E-07	
SB-243B	D-SB-243REB-4	4 - 4	2.62105	6E-09	2E-07	
Sub-Area F1	***D-VS-F1-4-2-AVG***	***2 - 2***	***2.45925***	***6E-09***	***2E-07***	
D-SB-1295	D-SB-1295-2-3	2 - 3	2.2504	5E-09	2E-07	
D-SB-1283	D-SB-1283-2-3	2 - 3	1.3616	3E-09	1E-07	
D-SB-1292	D-SB-1292-2-3	2 - 3	1.3321	3E-09	1E-07	
SB-333	SB-333-0203	2 - 3	410 U	5E-07	1E-05	
SB-769	D-SB-769-03	3 - 3	4 U	6E-09	1E-07	
SB-779	D-SB-779-03	3 - 3	4 U	5E-09	1E-07	
SB-781	D-SB-781-03	3 - 3	4 U	5E-09	1E-07	
SB-772	D-SB-772-03	3 - 3	3.9 U	5E-09	1E-07	
SB-775	D-SB-775-03	3 - 3	3.9 U	5E-09	1E-07	
SB-767	D-SB-767-03	3 - 3	3.8 U	5E-09	1E-07	
SB-768	D-SB-768-03	3 - 3	3.8 U	5E-09	1E-07	
SB-778	D-SB-778-03	3 - 3	3.8 U	5E-09	1E-07	
SB-780	D-SB-780-03	3 - 3	3.7 U	5E-09	1E-07	
SB-766	D-SB-766-03	3 - 3	3.6 U	4E-09	1E-07	
SB-243C	D-SB-243REC-4	4 - 4	1.7 U	2E-09	6E-08	
SB-057	F-SB-57RE-3	3 - 3	1.4 U	2E-09	5E-08	
	F-SB-57RE-4	4 - 4	1.6 U	2E-09	6E-08	
SB-058	F-SB-58RE-3	3 - 3	1.6 U	2E-09	6E-08	
	F-SB-58RE-4	4 - 4	1.5 U	2E-09	5E-08	
SB-060C	D-SB-60REC-3	3 - 3	1.6 U	2E-09	6E-08	
SB-061D	D-SB-61RED-3	3 - 3	1.6 U	2E-09	6E-08	
SB-063B	D-SB-63REB-4	4 - 4	1.6 U	2E-09	6E-08	
SB-063D	D-SB-63RED-4	4 - 4	1.6 U	2E-09	6E-08	
SB-061A	D-SB-61REA-3-AVG	3 - 3	1.55 U	2E-09	5E-08	
SB-060B	D-SB-60REB-3	3 - 3	1.5 U	2E-09	5E-08	
SB-061B	D-SB-61REB-3	3 - 3	1.5 U	2E-09	5E-08	
SB-061C	D-SB-61REC-3	3 - 3	1.5 U	2E-09	5E-08	
SB-066	D-SB-66RE-3	3 - 3	1.5 U	2E-09	5E-08	
	D-SB-66RE-4	4 - 4	1.5 U	2E-09	5E-08	
SB-066A	D-SB-66REA-4	4 - 4	1.5 U	2E-09	5E-08	
SB-066C	D-SB-66REC-4	4 - 4	1.5 U	2E-09	5E-08	

Revised Table B-1

Final Residual Risk Analysis Results - Block D Excluding Panhandle Area - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location[1]	Sample ID	Depth (feet)	BaPEq Concentration[2] (µg/kg)	Total ILCR[3]		Comments
				Industrial	Residential	
SB-318	SB-318-0203	2 - 3	1.5 U	2E-09	5E-08	
SB-320	SB-320-0203	2 - 3	1.5 U	2E-09	5E-08	
SB-323	SB-323-0203	2 - 3	1.5 U	2E-09	5E-08	
SB-324	SB-324-0203	2 - 3	1.5 U	2E-09	5E-08	
D-SB-1286	D-SB-1286-2-3-AVG	2 - 3	0.79 U	9E-10	3E-08	
D-SB-1300	D-SB-1300-2-3	2 - 3	0.78 U	9E-10	3E-08	
D-SB-1291	D-SB-1291-2-3	2 - 3	0.76 U	9E-10	3E-08	
D-SB-1294	D-SB-1294-2-3	2 - 3	0.75 U	9E-10	3E-08	
D-SB-1280	D-SB-1280-2-3	2 - 3	0.71 U	9E-10	3E-08	

1 - Sample locations are listed in order from highest to lowest benzo(a)pyrene (BaPEq) concentrations.
2 - One half the non-detected value was used for the calculation of the benzo(a)pyrene equivalents. If all concentrations were non-detect then the detection limit for benzo(a)pyrene was used as the benzo(a)pyrene equivalent concentration. Original and duplicate samples were averaged when calculating the benzo(a)pyrene equivalent concentration.
3 - Total incremental lifetime cancer risk from exposure to all chemicals of potential concern in soil.

Samples that were excavated.
Verification Samples

BaPEq - benzo(a)pyrene equivalent
µg/kg - microgram per kilogram
ILCR - incremental lifetime cancer risk
U - not detected
UCL - upper confidence level

ATTACHMENT B

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **SEPTEMBER 3, 2015**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/ PAH/ PCB/ MISC**
MRC SOIL REMEDY, BLOCK D AREA F
SAMPLE DELIVERY GROUP (SDG) – 240-54724-1

SAMPLES: 2/Aqueous/ VOC

TB-082515 WC-DFRAC-082515

17/Soil/PAH

D-DUP07-082515	D-VB-D-1-2	D-VB-D-2-2	D-VB-F-1-2	D-VB-F-2-2
D-VB-F-3-2	D-VB-F-4-2	D-VB-F-5-2	D-VB-F-7-2	D-VB-F-8-2
D-VB-F-9-2	D-VS-D-1-1	D-VS-D-2-1	D-VS-D-3-1	D-VS-D-4-1
D-VS-F-1-1	D-VS-F-2-1			

1/Aqueous/PCB/Flashpoint

WC-DFRAC-082515

Overview

The sample set for MRC Soil Remedy- Block D Area F, SDG 240-54724-1 consists of seventeen (17) soil environmental samples, one (1) aqueous sample and a trip blank. The aqueous sample and trip blank were analyzed for volatile organic compounds (VOCs). The seventeen (17) soil environmental samples were analyzed for polyaromatic hydrocarbons (PAHs). One (1) aqueous sample was analyzed for polychlorinated biphenyls (PCBs) and flashpoint. There is one (1) field duplicate pair included in this SDG: D-DUP07-082515 and D-VB-D-2-2.

The samples were collected by Tetra Tech on August 25, 2015 and analyzed by Test America Laboratories, Inc. Analyses were conducted in accordance to SW-846 Method 8260C, 8270D, 8082 and 1010 analytical and reporting protocol.

Summary

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial / continuing calibrations, laboratory method blank results, surrogate spike/internal standard recoveries, laboratory control sample results, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

Major Problems

- The matrix spike duplicate (MSD) percent recovery (%R) of 2-chloroethyl vinyl ether was 0% in spiked sample WC-DFRAC-082515. The samples were preserved in acid for analysis. The analyte 2-chloroethyl vinyl ether is unstable in this environment and not reliably recovered. The nondetected 2-chloroethyl vinyl ether results were qualified as rejected (UR).

Minor Problems

- Contamination was detected in the laboratory method blank associated with batch 195083.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
2-butanone	1.94	19.4
Acetone	9.12	91.2

  An action level of 10X the maximum concentration of common laboratory contaminants, acetone and 2-butanone, was established in order to evaluate the sample for blank contamination. Sample dilution factors were taken into account when applying the action level. Detected results less than the action level were qualified as (U).

- The continuing calibration percent differences (%Ds) for acetone and naphthalene were greater than the 20% quality control limit on August 27, 2015 @ 10:26 on instrument A3UX11.The detected and nondetected results of the aforementioned analytes were qualified as estimated (J) and (UJ), respectively.

- Field duplicate imprecision was noted in the field duplicate pair D-DUP07-082515 and D-VB-D-2-2. The relative percent differences (RPDs) for fluoranthene, phenanthrene and pyrene exceeded the 50% quality control limit. The detected fluoranthene, phenanthrene and pyrene results were qualified as estimated (J). The variances for the remaining PAHs except naphthalene were greater than 2X the reporting limit. The detected and nondetected results of these analytes were qualified as estimated (J) and (UJ), respectively.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Notes

The following samples were diluted for analysis of PAHs; D-VB-F-1-2 (2X) and D-VB-D-2-2 (4X).

Nondetected results were reported to the method detection limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Acetone and 2-butanone were detected in the laboratory method blank. The continuing calibration %Ds for acetone and naphthalene were greater than the 20% quality control limit.

Other Factors Affecting Data Quality: The MSD %R of 2-chloroethyl vinyl ether was 0% in spiked sample WC-DFRAC-082515. Field duplicate imprecision was noted for all PAHS except naphthalene in the field duplicate pair D-DUP07-082515 and D-VB-D-2-2. Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 07483	NSAMPLE	WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-11		
FRACTION: MISC	SAMP_DATE	8/25/2015		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	F		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
FLASHPOINT		200	>	

PROJ_NO: 07483	NSAMPLE	TB-082515			WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-12			240-54724-11		
FRACTION: OV	SAMP_DATE	8/25/2015			8/25/2015		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.28	U		0.28	U	
1,1,1-TRICHLOROETHANE		0.44	U		0.44	U	
1,1,2,2-TETRACHLOROETHANE		0.22	U		0.22	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.45	U		0.45	U	
1,1-DICHLOROETHANE		0.3	U		0.3	U	
1,1-DICHLOROETHENE		0.45	U		0.45	U	
1,1-DICHLOROPROPENE		0.42	U		0.42	U	
1,2,3-TRICHLOROBENZENE		0.37	U		0.37	U	
1,2,3-TRICHLOROPROPANE		0.44	U		0.44	U	
1,2,3-TRIMETHYLBENZENE		0.47	U		0.47	U	
1,2,4-TRICHLOROBENZENE		0.32	U		0.32	U	
1,2,4-TRIMETHYLBENZENE		0.41	U		0.41	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.82	U		0.82	U	
1,2-DIBROMOETHANE		0.32	U		0.32	U	
1,2-DICHLOROBENZENE		0.25	U		0.25	U	
1,2-DICHLOROETHANE		0.23	U		0.23	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.19	U		0.19	U	
1,3-DICHLOROPROPANE		0.19	U		0.19	U	
1,4-DICHLOROBENZENE		0.27	U		0.27	U	
2,2-DICHLOROPROPANE		0.26	U		0.26	U	
2-BUTANONE		0.53	U		1.1	U	A
2-CHLOROETHYL VINYL ETHER		0.59	UR	Q	0.59	UR	D
2-CHLOROTOLUENE		0.4	U		0.4	U	
2-HEXANONE		0.48	U		0.48	U	
4-CHLOROTOLUENE		0.29	U		0.29	U	
4-ISOPROPYLTOLUENE		0.43	U		0.43	U	
4-METHYL-2-PENTANONE		0.99	U		0.99	U	
ACETONE		0.94	UJ	C	6.2	U	A
BENZENE		0.35	U		0.35	U	
BROMOBENZENE		0.35	U		0.35	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.29	U		0.29	U	
BROMOFORM		0.56	U		0.56	U	
BROMOMETHANE		0.44	U		0.44	U	

PROJ_NO: 07483	NSAMPLE	TB-082515			WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-12			240-54724-11		
FRACTION: OV	SAMP_DATE	8/25/2015			8/25/2015		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.38	U		0.38	U	
CARBON TETRACHLORIDE		0.43	U		0.43	U	
CHLOROBENZENE		0.25	U		0.25	U	
CHLORODIBROMOMETHANE		0.43	U		0.43	U	
CHLOROETHANE		0.32	U		0.32	U	
CHLOROFORM		0.25	U		0.25	U	
CHLOROMETHANE		0.44	U		0.82	J	P
CIS-1,2-DICHLOROETHENE		0.26	U		0.26	U	
CIS-1,3-DICHLOROPROPENE		0.46	U		0.46	U	
DIBROMOMETHANE		0.42	U		0.42	U	
DICHLORODIFLUOROMETHANE		0.32	U		0.32	U	
DIISOPROPYL ETHER		0.5	U		0.5	U	
ETHYL TERT-BUTYL ETHER		0.23	U		0.23	U	
ETHYLBENZENE		0.25	U		0.25	U	
HEXACHLOROBUTADIENE		0.35	U		0.35	U	
ISOPROPYLBENZENE		0.35	U		0.35	U	
M+P-XYLENES		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.2	U		0.2	U	
METHYLENE CHLORIDE		0.33	U		0.33	U	
NAPHTHALENE		0.45	UJ	C	0.72	J	CP
N-BUTYLBENZENE		0.31	U		0.31	U	
N-PROPYLBENZENE		0.4	U		0.4	U	
O-XYLENE		0.25	U		0.25	U	
SEC-BUTYLBENZENE		0.48	U		0.48	U	
STYRENE		0.45	U		0.45	U	
TERT-AMYL METHYL ETHER		0.3	U		0.3	U	
TERT-BUTYLBENZENE		0.41	U		0.41	U	
TERTIARY-BUTYL ALCOHOL		4.9	U		4.9	U	
TETRACHLOROETHENE		0.31	U		0.31	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		0.52	U		0.52	U	
TRANS-1,2-DICHLOROETHENE		0.3	U		0.3	U	
TRANS-1,3-DICHLOROPROPENE		0.56	U		0.56	U	
TRICHLOROETHENE		0.22	U		0.22	U	
TRICHLOROFLUOROMETHANE		0.49	U		0.49	U	

PROJ_NO: 07483	NSAMPLE	TB-082515			WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-12			240-54724-11		
FRACTION: OV	SAMP_DATE	8/25/2015			8/25/2015		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.41	U		0.41	U	
VINYL CHLORIDE		0.29	U		0.29	U	

PROJ_NO: 07483	NSAMPLE	D-DUP07-082515			D-VB-D-1-2			D-VB-D-2-2			D-VB-F-1-2		
SDG: 240-54724-1	LAB_ID	240-54724-19			240-54724-17			240-54724-18			240-54724-1		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.3			81.4			85.6			86.4		
	DUP_OF	D-VB-D-2-2											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		5.5	J	GP	0.93	U		86	J	G	200		
ACENAPHTHYLENE		0.43	UJ	G	0.43	U		82	J	G	0.81	U	
ANTHRACENE		13	J	G	0.95	U		610	J	G	260		
BENZO(A)ANTHRACENE		28	J	G	9.3			2300	J	G	760		
BENZO(A)PYRENE		23	J	G	9.8			1700	J	G	760		
BENZO(B)FLUORANTHENE		30	J	G	16			2200	J	G	1000		
BENZO(G,H,I)PERYLENE		15	J	G	9.8			1100	J	G	500		
BENZO(K)FLUORANTHENE		17	J	G	4.8	J	P	1000	J	G	430		
CHRYSENE		31	J	G	12			2100	J	G	840		
DIBENZO(A,H)ANTHRACENE		0.81	UJ	G	0.8	U		290	J	G	120		
FLUORANTHENE		72	J	G	17			4200	J	G	1700		
FLUORENE		5.9	J	GP	0.65	U		150	J	G	120		
INDENO(1,2,3-CD)PYRENE		12	J	G	6.5	J	P	950	J	G	430		
NAPHTHALENE		7.3	J	P	13			23	J	P	100		
PHENANTHRENE		55	J	G	15			2300	J	G	1000		
PYRENE		60	J	G	15			3700	J	G	1500		

PROJ_NO: 07483	NSAMPLE	D-VB-F-2-2			D-VB-F-3-2			D-VB-F-4-2			D-VB-F-5-2		
SDG: 240-54724-1	LAB_ID	240-54724-2			240-54724-3			240-54724-4			240-54724-5		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.4			85.9			82.5			84.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		27			0.88	U		0.92	U		0.89	U	
ACENAPHTHYLENE		6.1	J	P	0.4	U		0.42	U		0.41	U	
ANTHRACENE		57			4.2	J	P	0.95	U		4.5	J	P
BENZO(A)ANTHRACENE		150			14			0.76	U		22		
BENZO(A)PYRENE		160			13			0.78	U		25		
BENZO(B)FLUORANTHENE		200			17			0.72	U		39		
BENZO(G,H,I)PERYLENE		110			9			0.42	U		19		
BENZO(K)FLUORANTHENE		83			8			0.82	U		14		
CHRYSENE		160			17			1.3	U		32		
DIBENZO(A,H)ANTHRACENE		33			0.76	U		0.8	U		0.77	U	
FLUORANTHENE		270			35			0.67	U		41		
FLUORENE		23			0.61	U		0.64	U		0.62	U	
INDENO(1,2,3-CD)PYRENE		97			7.6	J	P	0.42	U		16		
NAPHTHALENE		13			0.95	U		6.9	J	P	9.1		
PHENANTHRENE		190			17			0.89	U		15		
PYRENE		240			33			0.53	U		38		

PROJ_NO: 07483	NSAMPLE	D-VB-F-7-2			D-VB-F-8-2			D-VB-F-9-2			D-VS-D-1-1		
SDG: 240-54724-1	LAB_ID	240-54724-6			240-54724-7			240-54724-8			240-54724-13		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.9			85.5			83.6			84.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.85	U		9.2			0.9	U		71		
ACENAPHTHYLENE		0.39	U		4.4	J	P	0.41	U		0.42	U	
ANTHRACENE		5.6	J	P	18			0.92	U		63		
BENZO(A)ANTHRACENE		25			54			0.75	U		53		
BENZO(A)PYRENE		30			62			0.76	U		50		
BENZO(B)FLUORANTHENE		37			78			0.7	U		71		
BENZO(G,H,I)PERYLENE		26			39			0.41	U		32		
BENZO(K)FLUORANTHENE		15			36			0.81	U		19		
CHRYSENE		26			67			1.3	U		56		
DIBENZO(A,H)ANTHRACENE		5.7	J	P	12			0.78	U		8.7		
FLUORANTHENE		36			110			0.65	U		150		
FLUORENE		0.6	U		8.5			0.63	U		71		
INDENO(1,2,3-CD)PYRENE		18			35			0.41	U		27		
NAPHTHALENE		8.4			49			0.97	U		190		
PHENANTHRENE		19			67			0.86	U		270		
PYRENE		34			92			0.52	U		120		

PROJ_NO: 07483	NSAMPLE	D-VS-D-2-1			D-VS-D-3-1			D-VS-D-4-1			D-VS-F-1-1		
SDG: 240-54724-1	LAB_ID	240-54724-14			240-54724-15			240-54724-16			240-54724-9		
FRACTION: PAH	SAMP_DATE	8/25/2015			8/25/2015			8/25/2015			8/25/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.6			78.4			85.6			81.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		11			92			15			7.5	J	P
ACENAPHTHYLENE		0.42	U		0.45	U		0.41	U		6.2	J	P
ANTHRACENE		7.6	J	P	31			4.5	J	P	21		
BENZO(A)ANTHRACENE		4.6	J	P	21			14			100		
BENZO(A)PYRENE		0.77	U		18			13			110		
BENZO(B)FLUORANTHENE		5.9	J	P	24			15			150		
BENZO(G,H,I)PERYLENE		0.42	U		11			11			83		
BENZO(K)FLUORANTHENE		0.81	U		8.8			7.8			56		
CHRYSENE		5.5	J	P	23			14			110		
DIBENZO(A,H)ANTHRACENE		0.79	U		0.84	U		0.77	U		21		
FLUORANTHENE		16			81			22			160		
FLUORENE		10			96			14			6.8	J	P
INDENO(1,2,3-CD)PYRENE		0.42	U		11			7.2	J	P	71		
NAPHTHALENE		29			150			43			10		
PHENANTHRENE		40			200			31			79		
PYRENE		14			64			20			150		

PROJ_NO: 07483	NSAMPLE	D-VS-F-2-1		
SDG: 240-54724-1	LAB_ID	240-54724-10		
FRACTION: PAH	SAMP_DATE	8/25/2015		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	86.7		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U	
ACENAPHTHYLENE		0.41	U	
ANTHRACENE		0.9	U	
BENZO(A)ANTHRACENE		10		
BENZO(A)PYRENE		9.6		
BENZO(B)FLUORANTHENE		19		
BENZO(G,H,I)PERYLENE		17		
BENZO(K)FLUORANTHENE		6.8	J	P
CHRYSENE		13		
DIBENZO(A,H)ANTHRACENE		0.76	U	
FLUORANTHENE		15		
FLUORENE		0.61	U	
INDENO(1,2,3-CD)PYRENE		12		
NAPHTHALENE		13		
PHENANTHRENE		6.4	J	P
PYRENE		14		

PROJ_NO: 07483	NSAMPLE	WC-DFRAC-082515		
SDG: 240-54724-1	LAB_ID	240-54724-11		
FRACTION: PCB	SAMP_DATE	8/25/2015		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.22	U	
AROCLOR-1221		0.16	U	
AROCLOR-1232		0.2	U	
AROCLOR-1242		0.28	U	
AROCLOR-1248		0.13	U	
AROCLOR-1254		0.2	U	
AROCLOR-1260		0.22	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.1	J B	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U F1	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	6.2	J B	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.82	J	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.72	J	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		79-120
460-00-4	4-Bromofluorobenzene (Surr)	101		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		78-125

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	0.53	U	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	0.94	U	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.45	U	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: TB-082515 | Lab Sample ID: 240-54724-12

Matrix: Water | Lab File ID: UXJ8734.D

Analysis Method: 8260C | Date Collected: 08/25/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		79-120
460-00-4	4-Bromofluorobenzene (Surr)	102		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		78-125

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-1-2 | Lab Sample ID: 240-54724-1

Matrix: Solid | Lab File ID: 50829022.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:30

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.94(g) | Date Analyzed: 08/29/2015 17:47

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	200		15	1.8
208-96-8	Acenaphthylene	0.81	U	15	0.81
120-12-7	Anthracene	260		15	1.8
56-55-3	Benzo[a]anthracene	760		15	1.5
50-32-8	Benzo[a]pyrene	760		15	1.5
205-99-2	Benzo[b]fluoranthene	1000		15	1.4
191-24-2	Benzo[g,h,i]perylene	500		15	0.81
207-08-9	Benzo[k]fluoranthene	430		15	1.6
218-01-9	Chrysene	840		15	2.6
53-70-3	Dibenz(a,h)anthracene	120		15	1.5
206-44-0	Fluoranthene	1700		15	1.3
86-73-7	Fluorene	120		15	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	430		15	0.81
91-20-3	Naphthalene	100		15	1.9
85-01-8	Phenanthrene	1000		15	1.7
129-00-0	Pyrene	1500		15	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-2-2 | Lab Sample ID: 240-54724-2

Matrix: Solid | Lab File ID: 50829023.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:32

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.40(g) | Date Analyzed: 08/29/2015 18:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	27		7.4	0.85
208-96-8	Acenaphthylene	6.1	J	7.4	0.39
120-12-7	Anthracene	57		7.4	0.87
56-55-3	Benzo[a]anthracene	150		7.4	0.70
50-32-8	Benzo[a]pyrene	160		7.4	0.71
205-99-2	Benzo[b]fluoranthene	200		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	110		7.4	0.39
207-08-9	Benzo[k]fluoranthene	83		7.4	0.76
218-01-9	Chrysene	160		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	33		7.4	0.74
206-44-0	Fluoranthene	270		7.4	0.61
86-73-7	Fluorene	23		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	97		7.4	0.39
91-20-3	Naphthalene	13		7.4	0.92
85-01-8	Phenanthrene	190		7.4	0.82
129-00-0	Pyrene	240		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	72		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-3-2 | Lab Sample ID: 240-54724-3

Matrix: Solid | Lab File ID: 50829019.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:34

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.22(g) | Date Analyzed: 08/29/2015 16:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	4.2	J	7.7	0.90
56-55-3	Benzo[a]anthracene	14		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	17		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	9.0		7.7	0.40
207-08-9	Benzo[k]fluoranthene	8.0		7.7	0.79
218-01-9	Chrysene	17		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	35		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	7.6	J	7.7	0.40
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	17		7.7	0.84
129-00-0	Pyrene	33		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-4-2 | Lab Sample ID: 240-54724-4

Matrix: Solid | Lab File ID: 50829020.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:36

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.00(g) | Date Analyzed: 08/29/2015 16:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.1	0.92
208-96-8	Acenaphthylene	0.42	U	8.1	0.42
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	0.76	U	8.1	0.76
50-32-8	Benzo[a]pyrene	0.78	U	8.1	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.1	0.72
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.1	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.1	0.82
218-01-9	Chrysene	1.3	U	8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	0.67	U	8.1	0.67
86-73-7	Fluorene	0.64	U	8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.1	0.42
91-20-3	Naphthalene	6.9	J	8.1	0.99
85-01-8	Phenanthrene	0.89	U	8.1	0.89
129-00-0	Pyrene	0.53	U	8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	34		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-5-2 | Lab Sample ID: 240-54724-5

Matrix: Solid | Lab File ID: 50829024.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:38

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.28(g) | Date Analyzed: 08/29/2015 18:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.5	J	7.8	0.91
56-55-3	Benzo[a]anthracene	22		7.8	0.74
50-32-8	Benzo[a]pyrene	25		7.8	0.75
205-99-2	Benzo[b]fluoranthene	39		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	19		7.8	0.41
207-08-9	Benzo[k]fluoranthene	14		7.8	0.80
218-01-9	Chrysene	32		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	41		7.8	0.65
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	16		7.8	0.41
91-20-3	Naphthalene	9.1		7.8	0.96
85-01-8	Phenanthrene	15		7.8	0.86
129-00-0	Pyrene	38		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-7-2 | Lab Sample ID: 240-54724-6

Matrix: Solid | Lab File ID: 50829025.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:40

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.40(g) | Date Analyzed: 08/29/2015 19:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	5.6	J	7.5	0.88
56-55-3	Benzo[a]anthracene	25		7.5	0.71
50-32-8	Benzo[a]pyrene	30		7.5	0.72
205-99-2	Benzo[b]fluoranthene	37		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	26		7.5	0.39
207-08-9	Benzo[k]fluoranthene	15		7.5	0.76
218-01-9	Chrysene	26		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	5.7	J	7.5	0.74
206-44-0	Fluoranthene	36		7.5	0.62
86-73-7	Fluorene	0.60	U	7.5	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	18		7.5	0.39
91-20-3	Naphthalene	8.4		7.5	0.92
85-01-8	Phenanthrene	19		7.5	0.82
129-00-0	Pyrene	34		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		36-110
4165-62-2	Phenol-d5 (Surr)	76		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	68		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	20		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-8-2 | Lab Sample ID: 240-54724-7

Matrix: Solid | Lab File ID: 50829026.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:42

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.98(g) | Date Analyzed: 08/29/2015 19:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.2		7.8	0.89
208-96-8	Acenaphthylene	4.4	J	7.8	0.41
120-12-7	Anthracene	18		7.8	0.91
56-55-3	Benzo[a]anthracene	54		7.8	0.74
50-32-8	Benzo[a]pyrene	62		7.8	0.75
205-99-2	Benzo[b]fluoranthene	78		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	39		7.8	0.41
207-08-9	Benzo[k]fluoranthene	36		7.8	0.80
218-01-9	Chrysene	67		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	12		7.8	0.77
206-44-0	Fluoranthene	110		7.8	0.64
86-73-7	Fluorene	8.5		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	35		7.8	0.41
91-20-3	Naphthalene	49		7.8	0.96
85-01-8	Phenanthrene	67		7.8	0.85
129-00-0	Pyrene	92		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	68		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-F-9-2 | Lab Sample ID: 240-54724-8

Matrix: Solid | Lab File ID: 50829015.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:44

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.31(g) | Date Analyzed: 08/29/2015 14:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	0.92	U	7.9	0.92
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.9	0.41
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	0.65	U	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.86	U	7.9	0.86
129-00-0	Pyrene	0.52	U	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	83		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	54		10-110

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-F-1-1 | Lab Sample ID: 240-54724-9

Matrix: Solid | Lab File ID: 50829027.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:46

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.09(g) | Date Analyzed: 08/29/2015 19:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.5	J	8.1	0.93
208-96-8	Acenaphthylene	6.2	J	8.1	0.43
120-12-7	Anthracene	21		8.1	0.95
56-55-3	Benzo[a]anthracene	100		8.1	0.77
50-32-8	Benzo[a]pyrene	110		8.1	0.78
205-99-2	Benzo[b]fluoranthene	150		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	83		8.1	0.43
207-08-9	Benzo[k]fluoranthene	56		8.1	0.83
218-01-9	Chrysene	110		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	21		8.1	0.80
206-44-0	Fluoranthene	160		8.1	0.67
86-73-7	Fluorene	6.8	J	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	71		8.1	0.43
91-20-3	Naphthalene	10		8.1	1.0
85-01-8	Phenanthrene	79		8.1	0.89
129-00-0	Pyrene	150		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	78		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-110

FORM I
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Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-F-2-1 | Lab Sample ID: 240-54724-10

Matrix: Solid | Lab File ID: 50829016.D

Analysis Method: 8270D | Date Collected: 08/25/2015 10:48

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.87(g) | Date Analyzed: 08/29/2015 15:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	10		7.7	0.73
50-32-8	Benzo[a]pyrene	9.6		7.7	0.74
205-99-2	Benzo[b]fluoranthene	19		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	17		7.7	0.41
207-08-9	Benzo[k]fluoranthene	6.8	J	7.7	0.79
218-01-9	Chrysene	13		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	15		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	12		7.7	0.41
91-20-3	Naphthalene	13		7.7	0.95
85-01-8	Phenanthrene	6.4	J	7.7	0.85
129-00-0	Pyrene	14		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	76		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	71		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	27		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-1-1 | Lab Sample ID: 240-54724-13

Matrix: Solid | Lab File ID: 50829017.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:20

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.95(g) | Date Analyzed: 08/29/2015 15:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	71		7.9	0.91
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	63		7.9	0.93
56-55-3	Benzo[a]anthracene	53		7.9	0.75
50-32-8	Benzo[a]pyrene	50		7.9	0.76
205-99-2	Benzo[b]fluoranthene	71		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	32		7.9	0.42
207-08-9	Benzo[k]fluoranthene	19		7.9	0.81
218-01-9	Chrysene	56		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	8.7		7.9	0.79
206-44-0	Fluoranthene	150		7.9	0.66
86-73-7	Fluorene	71		7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	27		7.9	0.42
91-20-3	Naphthalene	190		7.9	0.98
85-01-8	Phenanthrene	270		7.9	0.87
129-00-0	Pyrene	120		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	78		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-2-1 | Lab Sample ID: 240-54724-14

Matrix: Solid | Lab File ID: 50829018.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:22

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.66(g) | Date Analyzed: 08/29/2015 16:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	11		8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	7.6	J	8.0	0.93
56-55-3	Benzo[a]anthracene	4.6	J	8.0	0.75
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	5.9	J	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	8.0	0.81
218-01-9	Chrysene	5.5	J	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	16		8.0	0.66
86-73-7	Fluorene	10		8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	29		8.0	0.98
85-01-8	Phenanthrene	40		8.0	0.87
129-00-0	Pyrene	14		8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		36-110
4165-62-2	Phenol-d5 (Surr)	87		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	72		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

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Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-3-1 | Lab Sample ID: 240-54724-15

Matrix: Solid | Lab File ID: 50829014.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:24

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 29.90(g) | Date Analyzed: 08/29/2015 14:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	92		8.5	0.97
208-96-8	Acenaphthylene	0.45	U	8.5	0.45
120-12-7	Anthracene	31		8.5	1.0
56-55-3	Benzo[a]anthracene	21		8.5	0.81
50-32-8	Benzo[a]pyrene	18		8.5	0.82
205-99-2	Benzo[b]fluoranthene	24		8.5	0.76
191-24-2	Benzo[g,h,i]perylene	11		8.5	0.45
207-08-9	Benzo[k]fluoranthene	8.8		8.5	0.87
218-01-9	Chrysene	23		8.5	1.4
53-70-3	Dibenz(a,h)anthracene	0.84	U	8.5	0.84
206-44-0	Fluoranthene	81		8.5	0.70
86-73-7	Fluorene	96		8.5	0.68
193-39-5	Indeno[1,2,3-cd]pyrene	11		8.5	0.45
91-20-3	Naphthalene	150		8.5	1.0
85-01-8	Phenanthrene	200		8.5	0.93
129-00-0	Pyrene	64		8.5	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

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Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VS-D-4-1 | Lab Sample ID: 240-54724-16

Matrix: Solid | Lab File ID: 50829013.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:26

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.23(g) | Date Analyzed: 08/29/2015 14:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	4.5	J	7.7	0.90
56-55-3	Benzo[a]anthracene	14		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	15		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	11		7.7	0.41
207-08-9	Benzo[k]fluoranthene	7.8		7.7	0.79
218-01-9	Chrysene	14		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	22		7.7	0.64
86-73-7	Fluorene	14		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	7.2	J	7.7	0.41
91-20-3	Naphthalene	43		7.7	0.95
85-01-8	Phenanthrene	31		7.7	0.85
129-00-0	Pyrene	20		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	76		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-110

FORM I
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Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-1-2 | Lab Sample ID: 240-54724-17

Matrix: Solid | Lab File ID: 50829010.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:28

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30.26(g) | Date Analyzed: 08/29/2015 12:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	9.3		8.1	0.77
50-32-8	Benzo[a]pyrene	9.8		8.1	0.78
205-99-2	Benzo[b]fluoranthene	16		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	9.8		8.1	0.43
207-08-9	Benzo[k]fluoranthene	4.8	J	8.1	0.83
218-01-9	Chrysene	12		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	17		8.1	0.67
86-73-7	Fluorene	0.65	U	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	6.5	J	8.1	0.43
91-20-3	Naphthalene	13		8.1	1.0
85-01-8	Phenanthrene	15		8.1	0.89
129-00-0	Pyrene	15		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	80		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-VB-D-2-2 | Lab Sample ID: 240-54724-18

Matrix: Solid | Lab File ID: 50829021.D

Analysis Method: 8270D | Date Collected: 08/25/2015 14:30

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 29.77(g) | Date Analyzed: 08/29/2015 17:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	86		31	3.6
208-96-8	Acenaphthylene	82		31	1.6
120-12-7	Anthracene	610		31	3.7
56-55-3	Benzo[a]anthracene	2300		31	3.0
50-32-8	Benzo[a]pyrene	1700		31	3.0
205-99-2	Benzo[b]fluoranthene	2200		31	2.8
191-24-2	Benzo[g,h,i]perylene	1100		31	1.6
207-08-9	Benzo[k]fluoranthene	1000		31	3.2
218-01-9	Chrysene	2100		31	5.2
53-70-3	Dibenz(a,h)anthracene	290		31	3.1
206-44-0	Fluoranthene	4200		31	2.6
86-73-7	Fluorene	150		31	2.5
193-39-5	Indeno[1,2,3-cd]pyrene	950		31	1.6
91-20-3	Naphthalene	23	J	31	3.9
85-01-8	Phenanthrene	2300		31	3.4
129-00-0	Pyrene	3700		31	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	78		20-110
367-12-4	2-Fluorophenol (Surr)	84		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: D-DUP07-082515 | Lab Sample ID: 240-54724-19

Matrix: Solid | Lab File ID: 50829007.D

Analysis Method: 8270D | Date Collected: 08/25/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30.20(g) | Date Analyzed: 08/29/2015 11:43

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.5	J	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	13		8.1	0.95
56-55-3	Benzo[a]anthracene	28		8.1	0.77
50-32-8	Benzo[a]pyrene	23		8.1	0.78
205-99-2	Benzo[b]fluoranthene	30		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	15		8.1	0.43
207-08-9	Benzo[k]fluoranthene	17		8.1	0.83
218-01-9	Chrysene	31		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.1	0.81
206-44-0	Fluoranthene	72		8.1	0.67
86-73-7	Fluorene	5.9	J	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	12		8.1	0.43
91-20-3	Naphthalene	7.3	J	8.1	1.0
85-01-8	Phenanthrene	55		8.1	0.89
129-00-0	Pyrene	60		8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	79		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	52		10-110

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: P1100009.D

Analysis Method: 8082A | Date Collected: 08/25/2015 10:20

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 790(mL) | Date Analyzed: 08/30/2015 19:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.22	U	0.63	0.22
11104-28-2	Aroclor-1221	0.16	U	0.63	0.16
11141-16-5	Aroclor-1232	0.20	U	0.63	0.20
53469-21-9	Aroclor-1242	0.28	U	0.63	0.28
12672-29-6	Aroclor-1248	0.13	U	0.63	0.13
11097-69-1	Aroclor-1254	0.20	U	0.63	0.20
11096-82-5	Aroclor-1260	0.22	U	0.63	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	47		21-124
2051-24-3	DCB Decachlorobiphenyl	21		10-131

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-DFRAC-082515 Lab Sample ID: 240-54724-11

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG ID.:

Matrix: Water Date Sampled: 08/25/2015 10:20

Reporting Basis: WET Date Received: 08/26/2015 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Flashpoint	>200	1.00	1.00	Degrees F			1	1010A

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D Area F

Report Number: 240-54724-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/26/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 08/27/2015.

2-Butanone (MEK) and Acetone were detected in method blank MB 240-195083/7 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

2-Chloro-ethyl vinyl ether cannot be reliably recovered in an acid preserved sample. WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12)

The continuing calibration verification (CCV) for analytical batch 195083 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. WC-DFRAC-082515 (240-54724-11) and TB-082515 (240-54724-12)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18) and D-DUP07-082515 (240-54724-19) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/27/2015 and analyzed on 08/29/2015.

Samples D-VB-F-1-2 (240-54724-1)[2X] and D-VB-D-2-2 (240-54724-18)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 195413 had an Rf for the surrogate 2,4,6-tribromophenol below method recommendations. Because the target analyte list is BN only no corrective action was necessary. The following samples were impacted:D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18), D-DUP07-082515 (240-54724-19), (LCS 240-195059/24-A), (LCS 240-195060/6-A), (MB 240-195059/23-A), (MB 240-195060/5-A), (240-54724-B-17-B MS), (240-54724-B-17-C MSD), (240-54724-B-19-B MS) and (240-54724-B-19-C MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 08/29/2015 and analyzed on 08/30/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-195028

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The samples were leached on 08/27/2015, prepared on 08/28/2015 and analyzed on 08/31/2015.

Barium and Chromium were detected in method blank LB 240-195274/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Cadmium was detected in method blank MB 240-195294/2-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 08/27/2015, prepared on 08/28/2015 and analyzed on 08/31/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT
Sample WC-DFRAC-082515 (240-54724-11) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 08/28/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Samples D-VB-F-1-2 (240-54724-1), D-VB-F-2-2 (240-54724-2), D-VB-F-3-2 (240-54724-3), D-VB-F-4-2 (240-54724-4), D-VB-F-5-2 (240-54724-5), D-VB-F-7-2 (240-54724-6), D-VB-F-8-2 (240-54724-7), D-VB-F-9-2 (240-54724-8), D-VS-F-1-1 (240-54724-9), D-VS-F-2-1 (240-54724-10), D-VS-D-1-1 (240-54724-13), D-VS-D-2-1 (240-54724-14), D-VS-D-3-1 (240-54724-15), D-VS-D-4-1 (240-54724-16), D-VB-D-1-2 (240-54724-17), D-VB-D-2-2 (240-54724-18) and D-DUP07-082515 (240-54724-19) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/26/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

1,8/C2,8

Chain of Custody Record

#34 016181

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBET	Site Contact: J. MULLIS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FedEx	1 of 2 COCs
Address: 20251 CENTURY BLVD. STE. 200	Analysis Turnaround Time			Sampler: MULLIS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY	☐ 1 week			
Site: MRC BLOCK O AREA F	☐ 2 days			Job / SDG No.:
P O # 112IC07483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH (8270D)	VOCs	PCBs	TCLP Metals	Ignitability	Sample Specific Notes:
O-VB-F-1-2	8/25/15	1030	C	SOIL	1			X					* O-VB AND O-VS
O-VB-F-2-2		1032						X					SAMPLES 3 DAY TAT *
O-VB-F-3-2		1034						X					
O-VB-F-4-2		1036						X					
O-VB-F-5-2		1038						X					
O-VB-F-7-2		1040						X					
O-VB-F-8-2		1042						X					
O-VB-F-9-2		1044						X					
O-VS-F-1-1		1046						X					
O-VS-F-2-1		1048						X					
WC-OFRAC-082515		1020		AQ	8				X	X	X	X	* 5 DAY TAT
TB-082515		—		AQ	2				X				

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA F (3 DAY TAT)
* WC-OFRAC = WASTE CHARACTERIZATION FOR STORM WATER IN BLOCK O FRAC TANK (5 DAY TAT)

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TETRA TECH	8/25/15 1630		TestAmerica	8/25/15 1700
Relinquished by:	TestAmerica	8/25/15 1730		TA	8/26/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

~~4.8/C2.8~~
JB

Chain of Custody Record

#35
016180

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBITT	Site Contact: J. MULLIS	Date: 8/25/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FedEx	2 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler: MULLIS
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below			Walk-in Client:
Fax: 301-528-3005	☐ 2 weeks 3 DAYS			Lab Sampling:
Project Name: MRC SOIL REMEDY	☐ 1 week			Job / SDG No.:
Site: MRC BLOCK O AREA D	☐ 2 days			
P O # 112ICO7483	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
O-VS-O-1-1	8/25/15	1420	C	SOIL	1			X	
O-VS-O-2-1		1422						X	
O-VS-O-3-1		1424						X	
O-VS-O-4-1		1426						X	
O-VB-O-1-2		1428						X	
O-VB-O-2-2		1430						X	
O-DUP07-082515								X	
				8/25/15					

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK O AREA D

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company	Date/Time	Received by	Company	Date/Time
Relinquished by:	TETRA TECH	8/25/15 1630		TestAmerica	8/25/15 1700
Relinquished by:	TestAmerica	8/25/15 1730	Alex Cole	TA	8/26/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 54724
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 8/26/15 Opened on 8/26/15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   - IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
   - ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   - ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   - IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   - -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Field Duplicate Precision

ANALYTE	D-DUP07-082515	D-VB-D-2-2	RPD	RL	DIFFERENCE
ACENAPHTHENE	5.5	86	175.96	31	80.5
ACENAPHTHYLENE	ND	82	200.00	31	81.57
ANTHRACENE	13	610	191.65	31	597
BENZO(A)ANTHRACENE	28	2300	195.19	31	2272
BENZO(A)PYRENE	23	1700	194.66	31	1677
BENZO(B)FLUORANTHENE	30	2200	194.62	31	2170
BENZO(G,H,I)PERYLENE	15	1100	194.62	31	1085
BENZO(K)FLUORANTHENE	17	1000	193.31	31	983
CHRYSENE	31	2100	194.18	31	2069
DIBENZO(A,H)ANTHRACENE	ND	290	200.00	31	289.19
FLUORANTHENE	72	4200	193.26	31	4128
FLUORENE	5.9	150	184.86	31	144.1
INDENO(1,2,3-CD)PYRENE	12	950	195.01	31	938
NAPHTHALENE	7.3	23	103.63	31	15.7
PHENANTHRENE	55	2300	190.66	31	2245
PYRENE	60	3700	193.62	31	3640

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: BFB813A.D BFB Injection Date: 08/13/2015

Instrument ID: A3UX11 BFB Injection Time: 10:51

Analysis Batch No.: 193142

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.8	
75	30.0 - 60.0 % of mass 95	51.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	86.1	
175	5.0 - 9.0 % of mass 174	7.5	(8.7)1
176	95.0 - 101.0 % of mass 174	83.4	(96.9)1
177	5.0 - 9.0 % of mass 176	5.2	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-193142/2	UXJ8315B.D	08/13/2015	12:22
	STD8260 240-193142/3	UXJ8316B.D	08/13/2015	12:45
	STD8260 240-193142/4	UXJ8317B.D	08/13/2015	13:07
	STD8260 240-193142/5	UXJ8318B.D	08/13/2015	13:30
	STD8260 240-193142/6	UXJ8319B.D	08/13/2015	13:52
	STD8260 240-193142/7	UXJ8320.D	08/13/2015	14:14
	ICV 240-193142/14	UXJ8321.D	08/13/2015	14:37
	STD6 240-193142/8	UXJ8322.D	08/13/2015	14:59
	STD5 240-193142/9	UXJ8323.D	08/13/2015	15:22
	STD4 240-193142/10	UXJ8324.D	08/13/2015	15:45
	STD3 240-193142/11	UXJ8325.D	08/13/2015	16:08
	STD2 240-193142/12	UXJ8326.D	08/13/2015	16:30
	STD1 240-193142/13	UXJ8327.D	08/13/2015	16:53
	ICV 240-193142/15	UXJ8328.D	08/13/2015	17:16

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-193142/7	UXJ8320.D
Level 2	STD8260 240-193142/6	UXJ8319B.D
Level 3	STD8260 240-193142/5	UXJ8318B.D
Level 4	STD8260 240-193142/4	UXJ8317B.D
Level 5	STD8260 240-193142/3	UXJ8316B.D
Level 6	STD8260 240-193142/2	UXJ8315B.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2289 0.1905	0.2134	0.2220	0.1980	0.1940	Ave		0.2078			0.1000	7.7		15.0			
Chloromethane	0.3210 0.2514	0.3404	0.3244	0.3021	0.2811	Ave		0.3034			0.1000	10.8		15.0			
Vinyl chloride	0.3452 0.2472	0.3311	0.3173	0.2993	0.2695	Ave		0.3016			0.1000	12.4		15.0			
Butadiene	0.3163 0.2609	0.3078	0.3197	0.2951	0.2826	Ave		0.2971				7.6		15.0			
Bromomethane	0.1769 0.1624	0.1998	0.1854	0.1763	0.1701	Ave		0.1785			0.0500	7.3		15.0			
Chloroethane	0.1893 0.1700	0.1935	0.1908	0.1799	0.1808	Ave		0.1840				4.8		15.0			
Dichlorofluoromethane	0.4355 0.4049	0.4576	0.4412	0.4347	0.4239	Ave		0.4329				4.1		15.0			
Trichlorofluoromethane	0.4119 0.3700	0.3864	0.3855	0.3676	0.3703	Ave		0.3820			0.1000	4.4		15.0			
Ethyl ether	0.4472 0.3117	0.3990	0.3610	0.3354	0.3147	Ave		0.3615				14.7		15.0			
Acrolein	0.0242 0.0237	0.0238	0.0233	0.0233	0.0238	Ave		0.0237				1.4		15.0			
1,1-Dichloroethene	0.3206 0.2786	0.3039	0.3207	0.3019	0.2877	Ave		0.3022			0.1000	5.6		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1780 0.1598	0.1710	0.1664	0.1618	0.1623	Ave		0.1666			0.0500	4.1		15.0			
Acetone	0.1759 0.0749	0.1250	0.0903	0.0823	0.0844	Lin1	0.2004	0.0741			0.0500				0.9980		0.9900
Iodomethane	0.4264 0.3796	0.4357	0.4310	0.4020	0.4024	Ave		0.4129				5.3		15.0			
Carbon disulfide	0.9020 0.7673	0.8491	0.8169	0.8078	0.7777	Ave		0.8201			0.1000	6.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2339 0.2320	0.2466	0.2339	0.2374	0.2312	Ave		0.2358				2.4		15.0			
Methyl acetate	0.2146 0.1774	0.1974	0.1849	0.1853	0.1777	Ave		0.1896			0.1000	7.5		15.0			
Methylene Chloride	0.7817 0.3051	0.6001	0.4326	0.3583	0.3299	Lin1	0.5426	0.2984			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0127 0.0124	0.0159	0.0153	0.0145	0.0145	Ave		0.0142				9.9		15.0			
Acrylonitrile	0.0913 0.0853	0.0896	0.0865	0.0864	0.0859	Ave		0.0875				2.7		15.0			
Methyl tert-butyl ether	0.8971 0.8895	0.9038	0.8953	0.9003	0.9036	Ave		0.8983			0.1000	0.6		15.0			
trans-1,2-Dichloroethene	0.3354 0.3424	0.3606	0.3503	0.3527	0.3442	Ave		0.3476			0.1000	2.5		15.0			
Hexane	0.0848 0.0771	0.0748	0.0737	0.0751	0.0738	Ave		0.0766				5.5		15.0			
1,1-Dichloroethane	0.6147 0.6181	0.6293	0.6211	0.6154	0.6139	Ave		0.6188			0.1000	0.9		15.0			
Vinyl acetate	0.4062 0.4465	0.3977	0.4149	0.4299	0.4247	Ave		0.4200				4.2		15.0			
cis-1,2-Dichloroethene	0.3598 0.3676	0.3704	0.3645	0.3510	0.3687	Ave		0.3637			0.1000	2.0		15.0			
2-Butanone (MEK)	0.1262 0.1059	0.0889	0.1098	0.1011	0.1027	Ave		0.1058			0.0500	11.6		15.0			
2,2-Dichloropropane	0.3168 0.3372	0.3374	0.3355	0.3316	0.3433	Ave		0.3336				2.7		15.0			
Bromochloromethane	0.1745 0.1673	0.1709	0.1648	0.1620	0.1644	Ave		0.1673				2.8		15.0			
Tetrahydrofuran	0.0751 0.0645	0.0665	0.0628	0.0644	0.0637	Ave		0.0662				6.9		15.0			
Chloroform	0.6241 0.5929	0.6432	0.5863	0.5755	0.5871	Ave		0.6015				4.4		15.0			
1,1,1-Trichloroethane	0.4366 0.4457	0.4647	0.4329	0.4241	0.4549	Ave		0.4431			0.1000	3.4		15.0			
Cyclohexane	0.5217 0.4700	0.4632	0.4479	0.4403	0.4657	Ave		0.4681			0.1000	6.1		15.0			
1,1-Dichloropropene	0.4463 0.4536	0.4442	0.4382	0.4181	0.4524	Ave		0.4421				2.9		15.0			
Carbon tetrachloride	0.3206 0.3671	0.3469	0.3161	0.3238	0.3626	Ave		0.3395			0.1000	6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0102 0.0095	0.0095	0.0087	0.0095	0.0098	Ave		0.0095				5.1		15.0			
Benzene	1.4632 1.4730	1.4970	1.3954	1.4010	1.4860	Ave		1.4526			0.5000	3.0		15.0			
1,2-Dichloroethane	0.4774 0.4602	0.4968	0.4491	0.4433	0.4615	Ave		0.4647			0.1000	4.2		15.0			
n-Heptane	0.0896 0.0711	0.0640	0.0686	0.0666	0.0693	Ave		0.0715				12.8		15.0			
Trichloroethene	0.3761 0.3488	0.3702	0.3547	0.3400	0.3583	Ave		0.3580			0.2000	3.7		15.0			
Methylcyclohexane	0.4876 0.4394	0.3984	0.4242	0.3956	0.4282	Ave		0.4289			0.1000	7.8		15.0			
1,2-Dichloropropane	0.3383 0.3424	0.3443	0.3289	0.3265	0.3481	Ave		0.3381			0.1000	2.6		15.0			
Dibromomethane	0.1713 0.1727	0.1699	0.1701	0.1652	0.1803	Ave		0.1716				2.9		15.0			
1,4-Dioxane	0.0012 +++++	0.0012	0.0021	0.0019	0.0020	Lin1	-0.021	0.0021							0.9930		0.9900
Bromodichloromethane	0.3619 0.4355	0.3992	0.3872	0.3789	0.4284	Ave		0.3985			0.1000	7.2		15.0			
2-Chloroethyl vinyl ether	0.1874 0.1937	0.1806	0.1774	0.1763	0.1961	Ave		0.1852				4.5		15.0			
cis-1,3-Dichloropropene	0.4372 0.5251	0.4665	0.4538	0.4748	0.5191	Ave		0.4794			0.1500	7.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.2223 0.2382	0.2244	0.2167	0.2210	0.2422	Ave		0.2275			0.0500	4.5		15.0			
Toluene	2.5693 2.6494	2.6772	2.5867	2.5706	2.6848	Ave		2.6230			0.4000	2.0		15.0			
trans-1,3-Dichloropropene	0.5915 0.7575	0.6877	0.6662	0.6977	0.7643	Ave		0.6942			0.1000	9.2		15.0			
Ethyl methacrylate	0.5564 0.6714	0.5977	0.6193	0.6239	0.6949	Ave		0.6273				8.0		15.0			
1,1,2-Trichloroethane	0.4326 0.4311	0.4420	0.4372	0.4311	0.4569	Ave		0.4385			0.1000	2.3		15.0			
Tetrachloroethene	0.4326 0.4407	0.4480	0.4492	0.4251	0.4522	Ave		0.4413			0.2000	2.4		15.0			
1,3-Dichloropropane	0.8100 0.8054	0.7900	0.8109	0.7888	0.8346	Ave		0.8066				2.1		15.0			
2-Hexanone	0.2733 0.2873	0.2715	0.2794	0.2713	0.2939	Ave		0.2795			0.0500	3.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.3607 0.4513	0.3890	0.4093	0.4048	0.4590	Ave		0.4124				9.1		15.0			
1,2-Dibromoethane	0.3835 0.3958	0.3737	0.3905	0.3750	0.4068	Ave		0.3875				3.3		15.0			
Chlorobenzene	1.2333 1.3197	1.3558	1.3168	1.2769	1.3540	Ave		1.3094			0.3000	3.6		15.0			
1,1,1,2-Tetrachloroethane	0.3535 0.4149	0.4055	0.3956	0.3982	0.4197	Ave		0.3979				5.9		15.0			
Ethylbenzene	0.6849 0.7212	0.7403	0.7061	0.6883	0.7411	Ave		0.7136				3.5		15.0			
m-Xylene & p-Xylene	0.8141 0.8528	0.8256	0.8427	0.8245	0.8961	Ave		0.8426				3.5		15.0			
o-Xylene	0.7046 0.7640	0.7730	0.7219	0.7271	0.7984	Ave		0.7482				4.8		15.0			
Styrene	1.1902 1.3943	1.2341	1.2923	1.2841	1.4338	Ave		1.3048			0.3000	7.1		15.0			
Bromoform	0.1681 0.2164	0.1795	0.1775	0.1884	0.2118	Ave		0.1903			0.1000	10.3		15.0			
Isopropylbenzene	1.6207 1.8033	1.7196	1.7320	1.6707	1.8585	Ave		1.7341			0.1000	5.0		15.0			
1,1,2,2-Tetrachloroethane	0.9121 0.8033	0.9364	0.9002	0.8845	0.8619	Ave		0.8831			0.3000	5.3		15.0			
Bromobenzene	1.1746 1.0244	1.2251	1.1340	1.0962	1.0846	Ave		1.1232				6.3		15.0			
1,2,3-Trichloropropane	0.3323 0.2763	0.3172	0.3018	0.3043	0.2874	Ave		0.3032				6.6		15.0			
trans-1,4-Dichloro-2-butene	0.2718 0.2710	0.2602	0.2745	0.2699	0.2730	Ave		0.2701				1.9		15.0			
N-Propylbenzene	1.2643 1.0385	1.0948	1.1261	1.1021	1.1146	Ave		1.1234				6.7		15.0			
2-Chlorotoluene	1.0145 0.8743	1.0148	1.0001	0.9358	0.9452	Ave		0.9641				5.8		15.0			
1,3,5-Trimethylbenzene	2.8913 2.9862	3.1978	3.0812	2.9786	3.1040	Ave		3.0399				3.6		15.0			
4-Chlorotoluene	1.0570 0.9439	1.0488	1.0323	0.9918	1.0107	Ave		1.0141				4.1		15.0			
tert-Butylbenzene	2.5067 2.3806	2.6145	2.4847	2.4554	2.5224	Ave		2.4941				3.1		15.0			
1,2,4-Trimethylbenzene	3.1766 3.1122	3.2789	3.1485	3.1829	3.2277	Ave		3.1878				1.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.5142 3.3065	3.5221	3.4622	3.3843	3.4110	Ave		3.4334				2.4		15.0			
1,3-Dichlorobenzene	1.9826 1.8259	2.0145	1.9348	1.8572	1.8689	Ave		1.9140			0.6000	3.9		15.0			
p-Isopropyltoluene	2.8801 3.0360	2.8433	2.9700	2.9327	3.0401	Ave		2.9504				2.7		15.0			
1,4-Dichlorobenzene	2.0215 1.8787	2.0166	1.9869	1.9186	1.9545	Ave		1.9628			0.5000	2.9		15.0			
n-Butylbenzene	2.4402 2.6109	2.4775	2.5462	2.4904	2.5602	Ave		2.5209				2.5		15.0			
1,2-Dichlorobenzene	2.0331 1.7994	2.0389	1.9004	1.8262	1.8181	Ave		1.9027			0.4000	5.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1472 0.1476	0.1466	0.1510	0.1508	0.1505	Ave		0.1490			0.0500	1.3		15.0			
1,2,4-Trichlorobenzene	1.2834 1.0439	1.2994	1.1961	1.1768	1.0511	Ave		1.1751			0.2000	9.3		15.0			
Hexachlorobutadiene	0.5790 0.4059	0.5163	0.5276	0.4763	0.4091	Ave		0.4857				14.2		15.0			
Naphthalene	2.9081 2.3957	2.8989	2.7935	2.7660	2.5403	Ave		2.7171				7.6		15.0			
1,2,3-Trichlorobenzene	1.1196 0.8884	1.2374	1.1303	1.0690	0.9491	Ave		1.0657				12.0		15.0			
Dibromofluoromethane (Surr)	0.2695 0.2867	0.2789	0.2814	0.2698	0.2931	Ave		0.2799				3.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3411 0.3856	0.3565	0.3644	0.3688	0.3882	Ave		0.3674				4.8		15.0			
Toluene-d8 (Surr)	1.9310 2.1561	2.0364	2.0182	2.0594	2.1619	Ave		2.0605				4.3		15.0			
4-Bromofluorobenzene (Surr)	0.4667 0.4991	0.4576	0.4852	0.4672	0.5187	Ave		0.4824				4.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-193142/13	UXJ8327.D
Level 2	STD2 240-193142/12	UXJ8326.D
Level 3	STD3 240-193142/11	UXJ8325.D
Level 4	STD4 240-193142/10	UXJ8324.D
Level 5	STD5 240-193142/9	UXJ8323.D
Level 6	STD6 240-193142/8	UXJ8322.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0209 0.0217	0.0208	0.0210	0.0211	0.0220	Ave		0.0212				2.3		15.0			
Diisopropyl ether	0.3447 0.2829	0.2897	0.3000	0.2872	0.2970	Ave		0.3002				7.6		15.0			
2-Chloro-1,3-butadiene	0.5274 0.4823	0.4801	0.5008	0.4655	0.4939	Ave		0.4917				4.3		15.0			
Ethyl t-butyl ether	1.0570 0.9252	0.9340	0.9693	0.9103	0.9479	Ave		0.9573				5.5		15.0			
Ethyl acetate	0.2599 0.2152	0.2271	0.2194	0.2083	0.2203	Ave		0.2250				8.1		15.0			
Propionitrile	0.0278 0.0277	0.0271	0.0282	0.0269	0.0282	Ave		0.0276				1.9		15.0			
Methacrylonitrile	0.1728 0.1724	0.1584	0.1629	0.1597	0.1687	Ave		0.1658				3.8		15.0			
Tert-amyl methyl ether	0.8769 0.8788	0.8278	0.8405	0.8247	0.8779	Ave		0.8544				3.1		15.0			
n-Butanol	0.0050 0.0062	0.0045	0.0057	0.0057	0.0058	Ave		0.0055				10.8		15.0			
Ethyl acrylate	0.3224 0.3362	0.2892	0.3143	0.3157	0.3275	Ave		0.3175				5.1		15.0			
Methyl methacrylate	0.2466 0.2585	0.2262	0.2500	0.2420	0.2537	Ave		0.2462				4.6		15.0			
2-Nitropropane	0.0484 0.0518	0.0426	0.0465	0.0414	0.0506	Ave		0.0469				9.0		15.0			
n-Butyl acetate	0.3592 0.3479	0.3073	0.3278	0.3287	0.3434	Ave		0.3357				5.5		15.0			
1-Chlorohexane	0.6277 0.5755	0.4943	0.5469	0.5354	0.5618	Ave		0.5569				8.0		15.0			
Cyclohexanone	0.0210 0.0182	0.0194	0.0203	0.0190	0.0212	Ave		0.0199				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 14:59 Calibration End Date: 08/13/2015 16:53 Calibration ID: 30118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	3.0422 3.3995	2.9396	3.1023	3.0106	3.2448	Ave		3.1232				5.4		15.0			
1,3,5-Trichlorobenzene	1.3758 1.2100	1.1737	1.2267	1.2079	1.2350	Ave		1.2382				5.7		15.0			
2-Methylnaphthalene	1.4575 1.0069	1.5181	1.3699	1.4396	1.4972	Ave		1.3816				13.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: BFB827.D BFB Injection Date: 08/27/2015

Instrument ID: A3UX11 BFB Injection Time: 09:56

Analysis Batch No.: 195083

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.0	
75	30.0 - 60.0 % of mass 95	52.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	87.5	
175	5.0 - 9.0 % of mass 174	7.1	(8.2)1
176	95.0 - 101.0 % of mass 174	84.7	(96.8)1
177	5.0 - 9.0 % of mass 176	5.5	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-195083/2	UXJ8728.D	08/27/2015	10:26
	LCS 240-195083/4	UXJ8729.D	08/27/2015	10:48
	CCV 240-195083/3	UXJ8730.D	08/27/2015	11:11
	MB 240-195083/7	UXJ8733.D	08/27/2015	12:18
TB-082515	240-54724-12	UXJ8734.D	08/27/2015	12:41
WC-DFRAC-082515	240-54724-11	UXJ8735.D	08/27/2015	13:04
WC-DFRAC-082515 MS	240-54724-11 MS	UXJ8738.D	08/27/2015	14:12
WC-DFRAC-082515 MSD	240-54724-11 MSD	UXJ8739.D	08/27/2015	14:35

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2078	0.1777	0.1000	0.00855	0.0100	-14.5	20.0
Chloromethane	Ave	0.3034	0.2838	0.1000	0.00936	0.0100	-6.4	20.0
Vinyl chloride	Ave	0.3016	0.2584	0.1000	0.00857	0.0100	-14.3	20.0
Butadiene	Ave	0.2971	0.2712		0.00913	0.0100	-8.7	20.0
Bromomethane	Ave	0.1785	0.1527	0.0500	0.00856	0.0100	-14.4	20.0
Chloroethane	Ave	0.1840	0.1589	0.0500	0.00864	0.0100	-13.6	20.0
Dichlorofluoromethane	Ave	0.4329	0.3831		0.00885	0.0100	-11.5	20.0
Trichlorofluoromethane	Ave	0.3820	0.3588	0.1000	0.00939	0.0100	-6.1	20.0
Ethyl ether	Ave	0.3615	0.3173		0.00878	0.0100	-12.2	20.0
Acrolein	Ave	0.0237	0.0243		0.0513	0.0500	2.6	20.0
1,1-Dichloroethene	Ave	0.3022	0.2804	0.1000	0.00928	0.0100	-7.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1666	0.1567	0.0500	0.00941	0.0100	-5.9	20.0
Acetone	Lin1		0.1060	0.0500	0.0259	0.0200	29.4*	20.0
Iodomethane	Ave	0.4129	0.4038		0.00978	0.0100	-2.2	20.0
Carbon disulfide	Ave	0.8201	0.8157	0.1000	0.00995	0.0100	-0.5	20.0
3-Chloro-1-propene	Ave	0.2358	0.2476		0.0105	0.0100	5.0	20.0
Methyl acetate	Ave	0.1896	0.1842	0.1000	0.0486	0.0500	-2.8	20.0
Methylene Chloride	Lin1		0.3429	0.1000	0.00967	0.0100	-3.3	20.0
tert-Butyl alcohol (TBA)	Ave	0.0142	0.0121		0.0854	0.100	-14.6	20.0
Acrylonitrile	Ave	0.0875	0.0880		0.101	0.100	0.6	20.0
Methyl tert-butyl ether	Ave	0.8983	0.8720	0.1000	0.00971	0.0100	-2.9	20.0
trans-1,2-Dichloroethene	Ave	0.3476	0.3466	0.1000	0.00997	0.0100	-0.3	20.0
Hexane	Ave	0.0766	0.0814		0.0106	0.0100	6.3	20.0
1,1-Dichloroethane	Ave	0.6188	0.6353	0.1000	0.0103	0.0100	2.7	20.0
Vinyl acetate	Ave	0.4200	0.4372		0.0104	0.0100	4.1	20.0
cis-1,2-Dichloroethene	Ave	0.3637	0.3613	0.1000	0.00993	0.0100	-0.7	20.0
2,2-Dichloropropane	Ave	0.3336	0.3413		0.0102	0.0100	2.3	20.0
2-Butanone (MEK)	Ave	0.1058	0.1133	0.0500	0.0214	0.0200	7.1	20.0
Bromochloromethane	Ave	0.1673	0.1623		0.00970	0.0100	-3.0	20.0
Tetrahydrofuran	Ave	0.0662	0.0921		0.0278	0.0200	39.1*	20.0
Chloroform	Ave	0.6015	0.5814	0.2000	0.00967	0.0100	-3.3	20.0
1,1,1-Trichloroethane	Ave	0.4431	0.4486	0.1000	0.0101	0.0100	1.2	20.0
Cyclohexane	Ave	0.4681	0.4886	0.1000	0.0104	0.0100	4.4	20.0
1,1-Dichloropropene	Ave	0.4421	0.4592		0.0104	0.0100	3.9	20.0
Carbon tetrachloride	Ave	0.3395	0.3983	0.1000	0.0117	0.0100	17.3	20.0
Isobutyl alcohol	Ave	0.0095	0.0083		0.218	0.250	-12.9	20.0
1,2-Dichloroethane	Ave	0.4647	0.4617	0.1000	0.00993	0.0100	-0.7	20.0
Benzene	Ave	1.453	1.475	0.5000	0.0102	0.0100	1.6	20.0
n-Heptane	Ave	0.0715	0.0762		0.0106	0.0100	6.5	20.0
Trichloroethene	Ave	0.3580	0.3640	0.2000	0.0102	0.0100	1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4289	0.4615	0.1000	0.0108	0.0100	7.6	20.0
1,2-Dichloropropane	Ave	0.3381	0.3636	0.1000	0.0108	0.0100	7.5	20.0
1,4-Dioxane	Lin1		0.0017		0.171	0.200	-14.3	20.0
Dibromomethane	Ave	0.1716	0.1728		0.0101	0.0100	0.7	20.0
Bromodichloromethane	Ave	0.3985	0.4223	0.1000	0.0106	0.0100	6.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1852	0.1886		0.0204	0.0200	1.8	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5109	0.1500	0.0107	0.0100	6.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2275	0.2262	0.0500	0.0199	0.0200	-0.6	20.0
Toluene	Ave	2.623	2.617	0.4000	0.00998	0.0100	-0.2	20.0
trans-1,3-Dichloropropene	Ave	0.6942	0.7117	0.1000	0.0103	0.0100	2.5	20.0
Ethyl methacrylate	Ave	0.6273	0.6081		0.00969	0.0100	-3.1	20.0
1,1,2-Trichloroethane	Ave	0.4385	0.4309	0.1000	0.00983	0.0100	-1.7	20.0
Tetrachloroethene	Ave	0.4413	0.4483	0.2000	0.0102	0.0100	1.6	20.0
1,3-Dichloropropane	Ave	0.8066	0.8242		0.0102	0.0100	2.2	20.0
2-Hexanone	Ave	0.2795	0.2638	0.0500	0.0189	0.0200	-5.6	20.0
Dibromochloromethane	Ave	0.4124	0.4406		0.0107	0.0100	6.9	20.0
1,2-Dibromoethane	Ave	0.3875	0.3860		0.00996	0.0100	-0.4	20.0
Chlorobenzene	Ave	1.309	1.337	0.3000	0.0102	0.0100	2.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3979	0.4337		0.0109	0.0100	9.0	20.0
Ethylbenzene	Ave	0.7136	0.7276		0.0102	0.0100	2.0	20.0
m-Xylene & p-Xylene	Ave	0.8426	0.8858		0.0105	0.0100	5.1	20.0
o-Xylene	Ave	0.7482	0.7805		0.0104	0.0100	4.3	20.0
Styrene	Ave	1.305	1.368	0.3000	0.0105	0.0100	4.8	20.0
Bromoform	Ave	0.1903	0.2098	0.1000	0.0110	0.0100	10.2	20.0
Isopropylbenzene	Ave	1.734	1.799	0.1000	0.0104	0.0100	3.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8831	0.9579	0.3000	0.0108	0.0100	8.5	20.0
Bromobenzene	Ave	1.123	1.258		0.0112	0.0100	12.0	20.0
1,2,3-Trichloropropane	Ave	0.3032	0.3126		0.0103	0.0100	3.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2701	0.2705		0.0100	0.0100	0.2	20.0
N-Propylbenzene	Ave	1.123	1.271		0.0113	0.0100	13.1	20.0
2-Chlorotoluene	Ave	0.9641	1.066		0.0111	0.0100	10.5	20.0
1,3,5-Trimethylbenzene	Ave	3.040	3.399		0.0112	0.0100	11.8	20.0
4-Chlorotoluene	Ave	1.014	1.120		0.0110	0.0100	10.5	20.0
tert-Butylbenzene	Ave	2.494	2.666		0.0107	0.0100	6.9	20.0
1,2,4-Trimethylbenzene	Ave	3.188	3.392		0.0106	0.0100	6.4	20.0
sec-Butylbenzene	Ave	3.433	3.575		0.0104	0.0100	4.1	20.0
1,3-Dichlorobenzene	Ave	1.914	1.842	0.6000	0.00962	0.0100	-3.8	20.0
p-Isopropyltoluene	Ave	2.950	3.022		0.0102	0.0100	2.4	20.0
1,4-Dichlorobenzene	Ave	1.963	1.886	0.5000	0.00961	0.0100	-3.9	20.0
n-Butylbenzene	Ave	2.521	2.370		0.00940	0.0100	-6.0	20.0
1,2-Dichlorobenzene	Ave	1.903	1.679	0.4000	0.00882	0.0100	-11.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCVIS 240-195083/2 Calibration Date: 08/27/2015 10:26

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 12:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 14:14

Lab File ID: UXJ8728.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1490	0.1352	0.0500	0.00908	0.0100	-9.2	20.0
1,2,4-Trichlorobenzene	Ave	1.175	1.006	0.2000	0.00856	0.0100	-14.4	20.0
Hexachlorobutadiene	Ave	0.4857	0.4084		0.00841	0.0100	-15.9	20.0
Naphthalene	Ave	2.717	2.109		0.00776	0.0100	-22.4*	20.0
1,2,3-Trichlorobenzene	Ave	1.066	0.8611		0.00808	0.0100	-19.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2799	0.2807		0.00745	0.00743	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3674	0.3763		0.00760	0.00743	2.4	20.0
Toluene-d8 (Surr)	Ave	2.061	2.075		0.00748	0.00743	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4824	0.4892		0.00753	0.00743	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195083/3 Calibration Date: 08/27/2015 11:11

Instrument ID: A3UX11 Calib Start Date: 08/13/2015 14:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/13/2015 16:53

Lab File ID: UXJ8730.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0212	0.0221		0.104	0.100	4.2	20.0
Diisopropyl ether	Ave	0.3002	0.2918		0.00972	0.0100	-2.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4917	0.5075		0.0103	0.0100	3.2	20.0
Ethyl t-butyl ether	Ave	0.9573	0.9373		0.00979	0.0100	-2.1	20.0
Ethyl acetate	Ave	0.2250	0.2289		0.0203	0.0200	1.7	20.0
Propionitrile	Ave	0.0276	0.0281		0.102	0.100	1.8	20.0
Methacrylonitrile	Ave	0.1658	0.1745		0.105	0.100	5.2	20.0
Tert-amyl methyl ether	Ave	0.8544	0.8073		0.00945	0.0100	-5.5	20.0
n-Butanol	Ave	0.0055	0.0052		0.235	0.250	-6.1	20.0
Methyl methacrylate	Ave	0.2462	0.2437		0.0198	0.0200	-1.0	20.0
2-Nitropropane	Ave	0.0469	0.0535		0.0228	0.0200	14.2	20.0
1-Chlorohexane	Ave	0.5569	0.5445		0.00978	0.0100	-2.2	20.0
Cyclohexanone	Ave	0.0199	0.0183		0.0921	0.100	-7.9	20.0
1,2,3-Trimethylbenzene	Ave	3.123	3.043		0.00974	0.0100	-2.6	20.0
1,3,5-Trichlorobenzene	Ave	1.238	1.188		0.00959	0.0100	-4.1	20.0
2-Methylnaphthalene	Ave	1.382	0.8783		0.0127	0.0200	-36.4*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: UXJ8733.D Lab Sample ID: MB 240-195083/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 08/27/2015 12:18

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195083/4	UXJ8729.D	08/27/2015 10:48
TB-082515	240-54724-12	UXJ8734.D	08/27/2015 12:41
WC-DFRAC-082515	240-54724-11	UXJ8735.D	08/27/2015 13:04
WC-DFRAC-082515 MS	240-54724-11 MS	UXJ8738.D	08/27/2015 14:12
WC-DFRAC-082515 MSD	240-54724-11 MSD	UXJ8739.D	08/27/2015 14:35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195083/7

Matrix: Water | Lab File ID: UXJ8733.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.94	J	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	9.12	J	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195083/7

Matrix: Water | Lab File ID: UXJ8733.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43
75-00-3	Chloroethane	0.32	U	1.0	0.32
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
74-95-3	Dibromomethane	0.42	U	1.0	0.42
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
108-20-3	Diisopropyl ether	0.50	U	10	0.50
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.45	U	1.0	0.45
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
95-47-6	o-Xylene	0.25	U	1.0	0.25
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
100-42-5	Styrene	0.45	U	1.0	0.45
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-195083/7

Matrix: Water Lab File ID: UXJ8733.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 08/27/2015 12:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 195083 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		79-120
460-00-4	4-Bromofluorobenzene (Surr)	92		61-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		78-125

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
WC-DFRAC-082515	240-54724-11	101	98	95	101
TB-082515	240-54724-12	101	99	99	102
	MB 240-195083/7	96	94	87	92
	LCS 240-195083/4	103	102	95	102
WC-DFRAC-082515 MS	240-54724-11 MS	99	102	97	105
WC-DFRAC-082515 MSD	240-54724-11 MSD	94	92	91	104

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	79-120
DCA = 1,2-Dichloroethane-d4 (Surr)	78-125
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	61-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8729.D

Lab ID: LCS 240-195083/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.8	108	80-120	
1,1,1-Trichloroethane	10.0	10.5	105	77-123	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	71-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.11	91	67-138	
1,1-Dichloroethane	10.0	10.6	106	79-125	
1,1-Dichloroethene	10.0	9.56	96	76-124	
1,1-Dichloropropene	10.0	11.1	111	80-128	
1,2,3-Trichlorobenzene	10.0	9.07	91	66-120	
1,2,3-Trichloropropane	10.0	10.8	108	72-126	
1,2,4-Trichlorobenzene	10.0	9.23	92	61-120	
1,2,4-Trimethylbenzene	10.0	10.5	105	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.32	93	50-132	
1,2-Dichlorobenzene	10.0	9.28	93	79-120	
1,2-Dichloroethane	10.0	9.84	98	80-120	
1,2-Dichloropropane	10.0	10.5	105	78-124	
1,3-Dichlorobenzene	10.0	9.90	99	79-120	
1,3-Dichloropropane	10.0	9.91	99	80-120	
1,4-Dichlorobenzene	10.0	10.1	101	79-120	
2,2-Dichloropropane	10.0	10.5	105	71-122	
2-Butanone (MEK)	20.0	20.4	102	56-138	
2-Chloroethyl vinyl ether	10.0	9.55 J	95	54-139	
2-Chlorotoluene	10.0	11.1	111	80-120	
2-Hexanone	20.0	17.4	87	55-141	
4-Chlorotoluene	10.0	11.2	112	80-120	
p-Isopropyltoluene	10.0	10.1	101	77-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.7	94	64-135	
Acetone	20.0	25.1	125	34-148	
Benzene	10.0	10.2	102	80-120	
Bromobenzene	10.0	11.4	114	80-120	
Bromoform	10.0	9.81	98	56-122	
Bromomethane	10.0	8.33	83	38-132	
Carbon disulfide	10.0	10.4	104	65-144	
Carbon tetrachloride	10.0	12.0	120	77-131	
Chlorobenzene	10.0	10.3	103	80-120	
Dibromochloromethane	10.0	10.1	101	74-120	
Chloroethane	10.0	9.08	91	36-126	
Chloroform	10.0	9.77	98	80-120	
Chloromethane	10.0	9.12	91	48-133	
cis-1,2-Dichloroethene	10.0	10.1	101	79-120	
cis-1,3-Dichloropropene	10.0	10.2	102	74-126	
Dibromomethane	10.0	9.94	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8729.D

Lab ID: LCS 240-195083/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	10.0	9.75	98	80-120	
Dichlorodifluoromethane	10.0	7.29	73	23-136	
Bromodichloromethane	10.0	10.2	102	80-120	
tert-Butyl alcohol (TBA)	100	95.6	96	38-144	
Ethylbenzene	10.0	10.1	101	80-120	
Hexachlorobutadiene	10.0	8.56	86	62-120	
Isopropylbenzene	10.0	10.3	103	77-120	
Methyl tert-butyl ether	10.0	10.0	100	69-121	
Methylene Chloride	10.0	9.62	96	77-129	
m-Xylene & p-Xylene	10.0	10.1	101	80-120	
Naphthalene	10.0	8.70	87	53-121	
n-Butylbenzene	10.0	9.50	95	74-120	
N-Propylbenzene	10.0	11.2	112	79-123	
o-Xylene	10.0	10.1	101	80-120	
sec-Butylbenzene	10.0	10.1	101	77-120	
Styrene	10.0	9.58	96	76-122	
Tetrachloroethene	10.0	9.72	97	78-121	
Toluene	10.0	9.39	94	80-120	
trans-1,2-Dichloroethene	10.0	10.4	104	80-124	
trans-1,3-Dichloropropene	10.0	10.3	103	75-131	
Trichloroethene	10.0	9.95	99	80-121	
Trichlorofluoromethane	10.0	9.26	93	61-133	
Vinyl acetate	10.0	8.39	84	27-160	
Vinyl chloride	10.0	8.44	84	52-121	
Xylenes, Total	20.0	20.2	101	80-120	
tert-Butylbenzene	10.0	10.6	106	77-121	
1,2-Dibromoethane	10.0	9.29	93	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8738.D

Lab ID: 240-54724-11 MS Client ID: WC-DFRAC-082515 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	0.28 U	10.7	107	72-120	
1,1,1-Trichloroethane	10.0	0.44 U	10.2	102	69-122	
1,1,2,2-Tetrachloroethane	10.0	0.22 U	11.2	112	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	0.45 U	9.06	91	44-140	
1,1-Dichloroethane	10.0	0.30 U	11.0	110	73-124	
1,1-Dichloroethene	10.0	0.45 U	9.38	94	67-124	
1,1-Dichloropropene	10.0	0.42 U	11.1	111	81-126	
1,2,3-Trichlorobenzene	10.0	0.37 U	8.44	84	46-120	
1,2,3-Trichloropropane	10.0	0.44 U	11.3	113	58-135	
1,2,4-Trichlorobenzene	10.0	0.32 U	8.96	90	48-120	
1,2,4-Trimethylbenzene	10.0	0.41 U	10.0	100	64-122	
1,2-Dibromo-3-Chloropropane	10.0	0.82 U	10.2	102	42-130	
1,2-Dichlorobenzene	10.0	0.25 U	8.81	88	67-118	
1,2-Dichloroethane	10.0	0.23 U	10.1	101	74-125	
1,2-Dichloropropane	10.0	0.25 U	10.5	105	73-122	
1,3-Dichlorobenzene	10.0	0.19 U	9.64	96	65-120	
1,3-Dichloropropane	10.0	0.19 U	10.1	101	59-133	
1,4-Dichlorobenzene	10.0	0.27 U	9.71	97	66-120	
2,2-Dichloropropane	10.0	0.26 U	10.4	104	48-126	
2-Butanone (MEK)	20.0	1.1 J	20.9	99	49-132	
2-Chloroethyl vinyl ether	10.0	0.59 U	1.28 J	13	10-150	
2-Chlorotoluene	10.0	0.40 U	11.0	110	70-122	
2-Hexanone	20.0	0.48 U	20.9	105	49-142	
4-Chlorotoluene	10.0	0.29 U	11.1	111	74-120	
p-Isopropyltoluene	10.0	0.43 U	9.41	94	61-123	
4-Methyl-2-pentanone (MIBK)	20.0	0.99 U	23.1	115	58-136	
Acetone	20.0	6.2 J	25.7	97	32-126	
Benzene	10.0	0.35 U	10.3	103	73-121	
Bromobenzene	10.0	0.35 U	11.0	110	73-120	
Bromoform	10.0	0.56 U	10.8	108	45-121	
Bromomethane	10.0	0.44 U	7.67	77	26-136	
Carbon disulfide	10.0	0.38 U	10.9	109	54-144	
Carbon tetrachloride	10.0	0.43 U	11.5	115	65-129	
Chlorobenzene	10.0	0.25 U	10.3	103	72-120	
Dibromochloromethane	10.0	0.43 U	10.4	104	62-122	
Chloroethane	10.0	0.32 U	8.02	80	27-131	
Chloroform	10.0	0.25 U	9.91	99	73-121	
Chloromethane	10.0	0.82 J	9.10	83	39-134	
cis-1,2-Dichloroethene	10.0	0.26 U	10.7	107	66-124	
cis-1,3-Dichloropropene	10.0	0.46 U	10.5	105	60-120	
Dibromomethane	10.0	0.42 U	10.0	100	63-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8738.D

Lab ID: 240-54724-11 MS Client ID: WC-DFRAC-082515 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Bromochloromethane	10.0	0.50 U	10.3	103	60-132	
Dichlorodifluoromethane	10.0	0.32 U	6.83	68	14-137	
Bromodichloromethane	10.0	0.29 U	10.4	104	72-120	
tert-Butyl alcohol (TBA)	100	4.9 U	102	102	70-130	
Ethylbenzene	10.0	0.25 U	10.3	103	68-121	
Hexachlorobutadiene	10.0	0.35 U	7.89	79	48-120	
Isopropylbenzene	10.0	0.35 U	10.5	105	61-122	
Methyl tert-butyl ether	10.0	0.20 U	10.5	105	61-121	
Methylene Chloride	10.0	0.33 U	9.74	97	70-124	
m-Xylene & p-Xylene	10.0	0.24 U	10.4	104	66-123	
Naphthalene	10.0	0.72 J	9.87	91	38-128	
n-Butylbenzene	10.0	0.31 U	8.62	86	54-126	
N-Propylbenzene	10.0	0.40 U	10.9	109	63-129	
o-Xylene	10.0	0.25 U	10.8	108	68-121	
sec-Butylbenzene	10.0	0.48 U	9.65	97	61-123	
Styrene	10.0	0.45 U	10.1	101	64-126	
Tetrachloroethene	10.0	0.31 U	10.2	102	59-125	
Toluene	10.0	0.23 U	9.68	97	72-122	
trans-1,2-Dichloroethene	10.0	0.30 U	10.5	105	72-125	
trans-1,3-Dichloropropene	10.0	0.56 U	10.6	106	58-132	
Trichloroethene	10.0	0.22 U	9.91	99	61-129	
Trichlorofluoromethane	10.0	0.49 U	8.47	85	49-133	
Vinyl acetate	10.0	0.41 U	8.88	89	26-189	
Vinyl chloride	10.0	0.29 U	7.40	74	44-122	
Xylenes, Total	20.0	0.52 U	21.2	106	67-122	
tert-Butylbenzene	10.0	0.41 U	9.86	99	63-122	
1,2-Dibromoethane	10.0	0.32 U	9.88	99	69-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8739.D

Lab ID: 240-54724-11 MSD Client ID: WC-DFRAC-082515 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.3	103	4	22	72-120	
1,1,1-Trichloroethane	10.0	9.92	99	3	14	69-122	
1,1,2,2-Tetrachloroethane	10.0	11.6	116	3	18	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.33	93	3	35	44-140	
1,1-Dichloroethane	10.0	10.6	106	4	14	73-124	
1,1-Dichloroethene	10.0	10.0	100	6	24	67-124	
1,1-Dichloropropene	10.0	10.8	108	3	11	81-126	
1,2,3-Trichlorobenzene	10.0	8.90	89	5	35	46-120	
1,2,3-Trichloropropane	10.0	11.5	115	2	25	58-135	
1,2,4-Trichlorobenzene	10.0	8.68	87	3	28	48-120	
1,2,4-Trimethylbenzene	10.0	10.1	101	1	14	64-122	
1,2-Dibromo-3-Chloropropane	10.0	10.1	101	0	24	42-130	
1,2-Dichlorobenzene	10.0	9.22	92	5	15	67-118	
1,2-Dichloroethane	10.0	9.66	97	5	24	74-125	
1,2-Dichloropropane	10.0	10.2	102	2	15	73-122	
1,3-Dichlorobenzene	10.0	9.41	94	2	15	65-120	
1,3-Dichloropropane	10.0	9.16	92	10	35	59-133	
1,4-Dichlorobenzene	10.0	9.62	96	1	16	66-120	
2,2-Dichloropropane	10.0	10.2	102	2	30	48-126	
2-Butanone (MEK)	20.0	20.1	95	4	19	49-132	
2-Chloroethyl vinyl ether	10.0	0.59 U	0	NC	30	10-150	F1
2-Chlorotoluene	10.0	11.3	113	3	18	70-122	
2-Hexanone	20.0	19.2	96	9	27	49-142	
4-Chlorotoluene	10.0	11.3	113	1	15	74-120	
p-Isopropyltoluene	10.0	9.47	95	1	27	61-123	
4-Methyl-2-pentanone (MIBK)	20.0	21.8	109	5	32	58-136	
Acetone	20.0	24.4	91	5	28	32-126	
Benzene	10.0	9.90	99	4	13	73-121	
Bromobenzene	10.0	11.3	113	3	13	73-120	
Bromoform	10.0	10.4	104	4	19	45-121	
Bromomethane	10.0	8.24	82	7	35	26-136	
Carbon disulfide	10.0	10.9	109	0	34	54-144	
Carbon tetrachloride	10.0	11.4	114	1	20	65-129	
Chlorobenzene	10.0	9.82	98	5	15	72-120	
Dibromochloromethane	10.0	9.76	98	7	19	62-122	
Chloroethane	10.0	8.74	87	9	35	27-131	
Chloroform	10.0	9.39	94	5	17	73-121	
Chloromethane	10.0	10.2	94	11	20	39-134	
cis-1,2-Dichloroethene	10.0	10.1	101	6	22	66-124	
cis-1,3-Dichloropropene	10.0	10.1	101	4	21	60-120	
Dibromomethane	10.0	9.98	100	0	35	63-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ8739.D

Lab ID: 240-54724-11 MSD Client ID: WC-DFRAC-082515 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Bromochloromethane	10.0	9.74	97	5	35	60-132	
Dichlorodifluoromethane	10.0	7.29	73	7	34	14-137	
Bromodichloromethane	10.0	10.0	100	3	19	72-120	
tert-Butyl alcohol (TBA)	100	99.3	99	3	30	70-130	
Ethylbenzene	10.0	10.1	101	2	16	68-121	
Hexachlorobutadiene	10.0	7.51	75	5	34	48-120	
Isopropylbenzene	10.0	10.4	104	1	20	61-122	
Methyl tert-butyl ether	10.0	10.0	100	5	12	61-121	
Methylene Chloride	10.0	9.38	94	4	14	70-124	
m-Xylene & p-Xylene	10.0	10.0	100	3	15	66-123	
Naphthalene	10.0	10.3	95	4	35	38-128	
n-Butylbenzene	10.0	8.91	89	3	33	54-126	
N-Propylbenzene	10.0	11.5	115	5	29	63-129	
o-Xylene	10.0	10.3	103	5	14	68-121	
sec-Butylbenzene	10.0	10.0	100	4	29	61-123	
Styrene	10.0	9.83	98	2	15	64-126	
Tetrachloroethene	10.0	9.45	94	7	20	59-125	
Toluene	10.0	9.03	90	7	15	72-122	
trans-1,2-Dichloroethene	10.0	10.5	105	0	25	72-125	
trans-1,3-Dichloropropene	10.0	9.73	97	8	22	58-132	
Trichloroethene	10.0	9.69	97	2	14	61-129	
Trichlorofluoromethane	10.0	9.23	92	9	25	49-133	
Vinyl acetate	10.0	8.66	87	3	15	26-189	
Vinyl chloride	10.0	8.10	81	9	35	44-122	
Xylenes, Total	20.0	20.3	102	4	14	67-122	
tert-Butylbenzene	10.0	10.5	105	6	24	63-122	
1,2-Dibromoethane	10.0	9.42	94	5	24	69-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD8260 240-193142/4 Date Analyzed: 08/13/2015 13:07

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ8317B.D Heated Purge: (Y/N) N

Calibration ID: 30116

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1483216	5.12	802597	7.78	305058	10.03
UPPER LIMIT		2966432	5.62	1605194	8.28	610116	10.53
LOWER LIMIT		741608	4.62	401299	7.28	152529	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-193142/14		1345281	5.12	739965	7.78	286721	10.03
ICV 240-193142/15		1257324	5.12	719253	7.78	261644	10.03
CCVIS 240-195083/2		1701068	5.12	975525	7.78	342843	10.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCVIS 240-195083/2 Date Analyzed: 08/27/2015 10:26

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ8728.D Heated Purge: (Y/N) N

Calibration ID: 30118

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1701068	5.12	975525	7.78	342843	10.03
UPPER LIMIT		3402136	5.62	1951050	8.28	685686	10.53
LOWER LIMIT		850534	4.62	487763	7.28	171422	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-195083/4		1456738	5.12	852635	7.78	288794	10.03
CCV 240-195083/3		1402332	5.12	827109	7.78	258665	10.03
MB 240-195083/7		1286551	5.12	806001	7.78	260187	10.03
240-54724-12	TB-082515	1209388	5.12	747037	7.78	243456	10.03
240-54724-11	WC-DFRAC-082515	1290415	5.12	773744	7.78	250845	10.03
240-54724-11 MS	WC-DFRAC-082515 MS	1339490	5.12	791331	7.78	288903	10.03
240-54724-11 MSD	WC-DFRAC-082515 MSD	1349202	5.12	801550	7.78	274651	10.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829001.D DFTPP Injection Date: 08/29/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:19

Analysis Batch No.: 195413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.4	
70	Less than 2.0% of mass 69	0.6	(0.8)1
127	25.0 - 75.0% of mass 198	52.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	51.0	
443	15.0 - 24.0% of mass 442	9.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-195413/2	50829002.D	08/29/2015	09:41
	MB 240-195059/23-A	50829003.D	08/29/2015	10:06
	LCS 240-195059/24-A	50829004.D	08/29/2015	10:30
	MB 240-195060/5-A	50829005.D	08/29/2015	10:54
	LCS 240-195060/6-A	50829006.D	08/29/2015	11:19
D-DUP07-082515	240-54724-19	50829007.D	08/29/2015	11:43
D-DUP07-082515 MS	240-54724-19 MS	50829008.D	08/29/2015	12:07
D-DUP07-082515 MSD	240-54724-19 MSD	50829009.D	08/29/2015	12:31
D-VB-D-1-2	240-54724-17	50829010.D	08/29/2015	12:56
D-VB-D-1-2 MS	240-54724-17 MS	50829011.D	08/29/2015	13:20
D-VB-D-1-2 MSD	240-54724-17 MSD	50829012.D	08/29/2015	13:44
D-VS-D-4-1	240-54724-16	50829013.D	08/29/2015	14:09
D-VS-D-3-1	240-54724-15	50829014.D	08/29/2015	14:33
D-VB-F-9-2	240-54724-8	50829015.D	08/29/2015	14:57
D-VS-F-2-1	240-54724-10	50829016.D	08/29/2015	15:22
D-VS-D-1-1	240-54724-13	50829017.D	08/29/2015	15:46
D-VS-D-2-1	240-54724-14	50829018.D	08/29/2015	16:10
D-VB-F-3-2	240-54724-3	50829019.D	08/29/2015	16:34
D-VB-F-4-2	240-54724-4	50829020.D	08/29/2015	16:59
D-VB-D-2-2	240-54724-18	50829021.D	08/29/2015	17:23
D-VB-F-1-2	240-54724-1	50829022.D	08/29/2015	17:47
D-VB-F-2-2	240-54724-2	50829023.D	08/29/2015	18:12
D-VB-F-5-2	240-54724-5	50829024.D	08/29/2015	18:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829001.D DFTPP Injection Date: 08/29/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:19

Analysis Batch No.: 195413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	77.4	
70	Less than 2.0% of mass 69	0.6	(0.8)1
127	25.0 - 75.0% of mass 198	52.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	23.7	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	51.0	
443	15.0 - 24.0% of mass 442	9.7	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
D-VB-F-7-2	240-54724-6	50829025.D	08/29/2015	19:00
D-VB-F-8-2	240-54724-7	50829026.D	08/29/2015	19:24
D-VS-F-1-1	240-54724-9	50829027.D	08/29/2015	19:49

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID (1): CCV 240-195413/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/29/2015 09:41

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.90	100.0
Phenol-d5 (Surr)	5.84	100.0
Nitrobenzene-d5 (Surr)	6.65	100.0
Naphthalene	7.31	100.0
2-Fluorobiphenyl (Surr)	8.20	100.0
Acenaphthylene	8.68	100.0
Acenaphthene	8.82	100.0
Fluorene	9.25	100.0
2,4,6-Tribromophenol (Surr)	9.46	100.0
Phenanthrene	10.08	100.0
Anthracene	10.12	100.0
Fluoranthene	11.09	100.0
Pyrene	11.28	100.0
Terphenyl-d14 (Surr)	11.37	100.0
Benzo[a]anthracene	12.29	100.0
Chrysene	12.33	100.0
Benzo[b]fluoranthene	13.41	43.90
Benzo[k]fluoranthene	13.44	100.0
Benzo[a]pyrene	13.84	100.0
Indeno[1,2,3-cd]pyrene	15.65	100.0
Dibenz(a,h)anthracene	15.65	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 | Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.693	2.109		12.5	10.0	24.6*	20.0
Pyridine	Ave	2.930	3.405		11.6	10.0	16.2	20.0
Benzaldehyde	Ave	2.328	2.393	0.0100	20.6	20.0	2.8	20.0
Phenol	Ave	2.775	3.070	0.8000	11.1	10.0	10.6	20.0
Aniline	Ave	3.583	3.814		10.6	10.0	6.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.641	0.7000	10.5	10.0	5.4	20.0
2-Chlorophenol	Ave	1.523	1.507	0.8000	9.89	10.0	-1.1	20.0
n-Decane	Ave	1.999	2.356		11.8	10.0	17.8	20.0
1,3-Dichlorobenzene	Ave	1.630	1.543		9.47	10.0	-5.3	20.0
1,4-Dichlorobenzene	Ave	1.666	1.637		9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	1.232	1.193		9.68	10.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.580	1.511		9.57	10.0	-4.3	20.0
2-Methylphenol	Ave	1.706	1.652	0.7000	9.68	10.0	-3.2	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.787		9.48	10.0	-5.2	20.0
Indene	Ave	3.185	2.995		18.8	20.0	-6.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	2.119	0.5000	10.7	10.0	7.0	20.0
Acetophenone	Ave	2.817	2.702	0.0100	9.59	10.0	-4.1	20.0
3 & 4 Methylphenol	Ave	1.799	1.732		9.63	10.0	-3.7	20.0
Hexachloroethane	Ave	0.8166	0.7830	0.3000	9.59	10.0	-4.1	20.0
Nitrobenzene	Ave	0.7749	0.8018	0.2000	10.3	10.0	3.5	20.0
Isophorone	Ave	1.226	1.296	0.4000	10.6	10.0	5.7	20.0
2-Nitrophenol	Ave	0.1796	0.1866	0.1000	10.4	10.0	3.9	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4877	0.2000	9.97	10.0	-0.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.7283	0.3000	10.8	10.0	7.7	20.0
Benzoic acid	Lin1		0.1694		15.2	20.0	-24.0*	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2818	0.2000	9.20	10.0	-8.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3002		9.23	10.0	-7.7	20.0
Naphthalene	Ave	1.144	1.041	0.7000	9.10	10.0	-9.0	20.0
4-Chloroaniline	Ave	0.4932	0.4570	0.0100	9.27	10.0	-7.3	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2709		9.13	10.0	-8.7	20.0
Hexachlorobutadiene	Ave	0.2017	0.1715	0.0100	8.50	10.0	-15.0	20.0
Caprolactam	Ave	0.1384	0.1476	0.0100	21.3	20.0	6.6	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4047	0.2000	9.68	10.0	-3.2	20.0
2-Methylnaphthalene	Ave	0.7006	0.6443	0.4000	9.20	10.0	-8.0	20.0
1-Methylnaphthalene	Ave	0.6168	0.5583		9.05	10.0	-9.5	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.1825	0.0500	5.50	10.0	-45.0*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5335	0.0100	9.37	10.0	-6.3	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3517	0.2000	9.39	10.0	-6.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3388	0.2000	8.59	10.0	-14.1	20.0
1,1'-Biphenyl	Ave	1.483	1.416	0.0100	9.55	10.0	-4.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.171	1.118	0.8000	9.55	10.0	-4.5	20.0
2-Nitroaniline	Ave	0.6109	0.6983	0.0100	11.4	10.0	14.3	20.0
Dimethyl phthalate	Ave	1.267	1.236	0.0100	9.75	10.0	-2.5	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2287		11.6	10.0	15.9	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2941		10.5	10.0	4.9	20.0
Acenaphthylene	Ave	1.869	1.782	0.9000	9.54	10.0	-4.6	20.0
3-Nitroaniline	Ave	0.3056	0.3210	0.0100	10.5	10.0	5.0	20.0
2,4-Dinitrophenol	Lin1		0.1430	0.0100	19.7	20.0	-1.7	20.0
Acenaphthene	Ave	1.201	1.089	0.9000	9.07	10.0	-9.3	20.0
4-Nitrophenol	Ave	0.2548	0.2372		18.6	20.0	-6.9	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3911	0.2000	10.5	10.0	4.6	20.0
Dibenzofuran	Ave	1.648	1.508	0.8000	9.15	10.0	-8.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.2595	0.0100	8.24	10.0	-17.6	20.0
Diethyl phthalate	Ave	1.245	1.114	0.0100	8.95	10.0	-10.5	20.0
Hexadecane	Ave	1.016	1.053		10.4	10.0	3.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5724	0.4000	9.33	10.0	-6.7	20.0
4-Nitroaniline	Ave	0.2967	0.3170	0.0100	10.7	10.0	6.8	20.0
Fluorene	Ave	1.379	1.226	0.9000	8.89	10.0	-11.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1355	0.0100	22.0	20.0	10.0	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5228	0.0100	18.4	20.0	-8.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.649		10.4	10.0	4.4	20.0
Azobenzene	Ave	1.580	1.649		10.4	10.0	4.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.1869	0.1000	8.75	10.0	-12.5	20.0
Hexachlorobenzene	Ave	0.2114	0.1803	0.1000	8.53	10.0	-14.7	20.0
Atrazine	Ave	0.2132	0.2147	0.0100	20.1	20.0	0.7	20.0
n-Octadecane	Ave	0.6421	0.6970		10.9	10.0	8.5	20.0
Pentachlorophenol	Ave	0.1444	0.1024	0.0500	14.2	20.0	-29.0*	20.0
Phenanthrene	Ave	1.268	1.154	0.7000	9.10	10.0	-9.0	20.0
Anthracene	Ave	1.261	1.174	0.7000	9.31	10.0	-6.9	20.0
Carbazole	Ave	1.050	1.066	0.0100	10.1	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.321	0.0100	10.6	10.0	5.7	20.0
Fluoranthene	Ave	1.280	1.222	0.6000	9.55	10.0	-4.5	20.0
Benzidine	Lin1		0.7168		23.2	20.0	15.8	20.0
Pyrene	Ave	1.153	1.215	0.6000	10.5	10.0	5.4	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5730	0.0100	10.7	10.0	6.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.8037	0.0100	11.0	10.0	9.9	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3871	0.0100	21.5	20.0	7.7	20.0
Benzo[a]anthracene	Ave	1.234	1.210	0.8000	9.80	10.0	-2.0	20.0
Chrysene	Ave	1.158	1.095	0.7000	9.45	10.0	-5.5	20.0
Di-n-octyl phthalate	Ave	1.419	1.678	0.0100	11.8	10.0	18.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195413/2 Calibration Date: 08/29/2015 09:41

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50829002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.185	1.191	0.7000	10.1	10.0	0.5	20.0
Benzo[k]fluoranthene	Ave	1.198	1.307	0.7000	10.9	10.0	9.1	20.0
Benzo[a]pyrene	Ave	1.128	1.167	0.7000	10.3	10.0	3.4	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.029	0.4000	11.2	10.0	11.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.264	0.5000	10.8	10.0	7.8	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.032	0.5000	10.6	10.0	6.0	20.0
1,4-Dioxane	Ave	0.9857			0.000490	10.0		
2-Fluorophenol (Surr)	Ave	1.750	1.834		10.5	10.0	4.8	20.0
Phenol-d5 (Surr)	Ave	2.475	2.601		10.5	10.0	5.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7775		10.0	10.0	0.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.203		9.21	10.0	-7.9	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.0977		7.51	10.0	-24.9*	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7417		10.1	10.0	0.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829003.D Lab Sample ID: MB 240-195059/23-A

Matrix: Solid Date Extracted: 08/27/2015 08:14

Instrument ID: A4HP9 Date Analyzed: 08/29/2015 10:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195059/24-A	50829004.D	08/29/2015 10:30
D-VB-D-1-2	240-54724-17	50829010.D	08/29/2015 12:56
D-VB-D-1-2 MS	240-54724-17 MS	50829011.D	08/29/2015 13:20
D-VB-D-1-2 MSD	240-54724-17 MSD	50829012.D	08/29/2015 13:44
D-VS-D-4-1	240-54724-16	50829013.D	08/29/2015 14:09
D-VS-D-3-1	240-54724-15	50829014.D	08/29/2015 14:33
D-VB-F-9-2	240-54724-8	50829015.D	08/29/2015 14:57
D-VS-F-2-1	240-54724-10	50829016.D	08/29/2015 15:22
D-VS-D-1-1	240-54724-13	50829017.D	08/29/2015 15:46
D-VS-D-2-1	240-54724-14	50829018.D	08/29/2015 16:10
D-VB-F-3-2	240-54724-3	50829019.D	08/29/2015 16:34
D-VB-F-4-2	240-54724-4	50829020.D	08/29/2015 16:59
D-VB-F-1-2	240-54724-1	50829022.D	08/29/2015 17:47
D-VB-F-2-2	240-54724-2	50829023.D	08/29/2015 18:12
D-VB-F-5-2	240-54724-5	50829024.D	08/29/2015 18:36
D-VB-F-7-2	240-54724-6	50829025.D	08/29/2015 19:00
D-VB-F-8-2	240-54724-7	50829026.D	08/29/2015 19:24
D-VS-F-1-1	240-54724-9	50829027.D	08/29/2015 19:49

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195059/23-A

Matrix: Solid | Lab File ID: 50829003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:14

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	105		36-110
4165-62-2	Phenol-d5 (Surr)	91		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	79		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab File ID: 50829005.D Lab Sample ID: MB 240-195060/5-A

Matrix: Solid Date Extracted: 08/27/2015 08:19

Instrument ID: A4HP9 Date Analyzed: 08/29/2015 10:54

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-195060/6-A	50829006.D	08/29/2015 11:19
D-DUP07-082515	240-54724-19	50829007.D	08/29/2015 11:43
D-DUP07-082515 MS	240-54724-19 MS	50829008.D	08/29/2015 12:07
D-DUP07-082515 MSD	240-54724-19 MSD	50829009.D	08/29/2015 12:31
D-VB-D-2-2	240-54724-18	50829021.D	08/29/2015 17:23

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195060/5-A

Matrix: Solid | Lab File ID: 50829005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19

Sample wt/vol: 30(g) | Date Analyzed: 08/29/2015 10:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VB-F-1-2	240-54724-1	70	74	64	69	18	82
D-VB-F-2-2	240-54724-2	68	72	61	71	33	87
D-VB-F-3-2	240-54724-3	83	85	70	70	40	96
D-VB-F-4-2	240-54724-4	83	85	72	71	34	91
D-VB-F-5-2	240-54724-5	68	75	58	68	22	92
D-VB-F-7-2	240-54724-6	68	76	56	65	20	80
D-VB-F-8-2	240-54724-7	70	79	60	68	41	89
D-VB-F-9-2	240-54724-8	79	83	70	70	54	94
D-VS-F-1-1	240-54724-9	72	78	62	69	23	90
D-VS-F-2-1	240-54724-10	71	76	64	65	27	86
D-VS-D-1-1	240-54724-13	78	81	70	70	36	86
D-VS-D-2-1	240-54724-14	83	87	72	72	46	93
D-VS-D-3-1	240-54724-15	76	81	69	69	41	84
D-VS-D-4-1	240-54724-16	76	81	66	65	43	81
D-VB-D-1-2	240-54724-17	80	85	69	69	44	87
D-VB-D-2-2	240-54724-18	84	84	78	80	32	94
D-DUP07-082515	240-54724-19	79	85	74	74	52	96
	MB 240-195059/23-A	82	91	79	79	41	105
	MB 240-195060/5-A	70	81	70	71	18	88
	LCS 240-195059/24-A	87	92	83	74	35	89
	LCS 240-195060/6-A	81	82	76	69	35	86
D-VB-D-1-2 MS	240-54724-17 MS	76	79	71	67	46	77
D-DUP07-082515 MS	240-54724-19 MS	63	67	59	59	60	90
D-VB-D-1-2 MSD	240-54724-17 MSD	75	80	69	66	50	87
D-DUP07-082515 MSD	240-54724-19 MSD	82	85	79	73	58	92

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829004.D

Lab ID: LCS 240-195059/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	491	74	38-110	
Acenaphthylene	667	497	75	40-110	
Anthracene	667	518	78	48-110	
Benzo[a]anthracene	667	531	80	50-110	
Benzo[a]pyrene	667	584	88	44-110	
Benzo[b]fluoranthene	667	573	86	43-110	
Benzo[g,h,i]perylene	667	587	88	51-110	
Benzo[k]fluoranthene	667	590	89	38-105	
Chrysene	667	547	82	50-110	
Dibenz(a,h)anthracene	667	606	91	51-110	
Fluoranthene	667	524	79	51-110	
Fluorene	667	473	71	46-110	
Indeno[1,2,3-cd]pyrene	667	594	89	50-110	
Naphthalene	667	516	77	36-110	
Phenanthrene	667	514	77	49-110	
Pyrene	667	578	87	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829006.D

Lab ID: LCS 240-195060/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	474	71	38-110	
Acenaphthylene	667	475	71	40-110	
Anthracene	667	499	75	48-110	
Benzo[a]anthracene	667	520	78	50-110	
Benzo[a]pyrene	667	561	84	44-110	
Benzo[b]fluoranthene	667	566	85	43-110	
Benzo[g,h,i]perylene	667	576	86	51-110	
Benzo[k]fluoranthene	667	592	89	38-105	
Chrysene	667	554	83	50-110	
Dibenz(a,h)anthracene	667	617	92	51-110	
Fluoranthene	667	520	78	51-110	
Fluorene	667	463	69	46-110	
Indeno[1,2,3-cd]pyrene	667	592	89	50-110	
Naphthalene	667	474	71	36-110	
Phenanthrene	667	491	74	49-110	
Pyrene	667	562	84	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829011.D

Lab ID: 240-54724-17 MS Client ID: D-VB-D-1-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	809	0.93 U	558	69	22-110	
Acenaphthylene	809	0.43 U	577	71	24-110	
Anthracene	809	0.95 U	575	71	20-110	
Benzo[a]anthracene	809	9.3	588	72	10-122	
Benzo[a]pyrene	809	9.8	610	74	10-110	
Benzo[b]fluoranthene	809	16	617	74	12-118	
Benzo[g,h,i]perylene	809	9.8	633	77	10-117	
Benzo[k]fluoranthene	809	4.8 J	608	75	10-121	
Chrysene	809	12	601	73	10-125	
Dibenz(a,h)anthracene	809	0.80 U	676	84	14-113	
Fluoranthene	809	17	602	72	10-110	
Fluorene	809	0.65 U	543	67	23-110	
Indeno[1,2,3-cd]pyrene	809	6.5 J	650	80	10-114	
Naphthalene	809	13	566	68	10-111	
Phenanthrene	809	15	577	69	10-166	
Pyrene	809	15	642	77	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829012.D

Lab ID: 240-54724-17 MSD Client ID: D-VB-D-1-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	815	557	68	0	99	22-110	
Acenaphthylene	815	571	70	1	99	24-110	
Anthracene	815	626	77	9	99	20-110	
Benzo[a]anthracene	815	670	81	13	99	10-122	
Benzo[a]pyrene	815	682	82	11	99	10-110	
Benzo[b]fluoranthene	815	714	86	15	99	12-118	
Benzo[g,h,i]perylene	815	705	85	11	99	10-117	
Benzo[k]fluoranthene	815	673	82	10	99	10-121	
Chrysene	815	689	83	14	99	10-125	
Dibenz(a,h)anthracene	815	738	91	9	99	14-113	
Fluoranthene	815	663	79	10	99	10-110	
Fluorene	815	579	71	7	99	23-110	
Indeno[1,2,3-cd]pyrene	815	717	87	10	99	10-114	
Naphthalene	815	544	65	4	99	10-111	
Phenanthrene	815	626	75	8	99	10-166	
Pyrene	815	727	87	12	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829008.D

Lab ID: 240-54724-19 MS Client ID: D-DUP07-082515 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	829	5.5 J	553	66	22-110	
Acenaphthylene	829	0.43 U	560	68	24-110	
Anthracene	829	13	669	79	20-110	
Benzo[a]anthracene	829	28	697	81	10-122	
Benzo[a]pyrene	829	23	729	85	10-110	
Benzo[b]fluoranthene	829	30	739	86	12-118	
Benzo[g,h,i]perylene	829	15	765	90	10-117	
Benzo[k]fluoranthene	829	17	740	87	10-121	
Chrysene	829	31	724	84	10-125	
Dibenz(a,h)anthracene	829	0.81 U	792	95	14-113	
Fluoranthene	829	72	749	82	10-110	
Fluorene	829	5.9 J	590	71	23-110	
Indeno[1,2,3-cd]pyrene	829	12	779	92	10-114	
Naphthalene	829	7.3 J	475	56	10-111	
Phenanthrene	829	55	704	78	10-166	
Pyrene	829	60	770	86	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50829009.D

Lab ID: 240-54724-19 MSD Client ID: D-DUP07-082515 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	813	612	75	10	99	22-110	
Acenaphthylene	813	621	76	10	99	24-110	
Anthracene	813	663	80	1	99	20-110	
Benzo[a]anthracene	813	704	83	1	99	10-122	
Benzo[a]pyrene	813	702	83	4	99	10-110	
Benzo[b]fluoranthene	813	757	89	2	99	12-118	
Benzo[g,h,i]perylene	813	753	91	1	99	10-117	
Benzo[k]fluoranthene	813	682	82	8	99	10-121	
Chrysene	813	717	84	1	99	10-125	
Dibenz(a,h)anthracene	813	785	97	1	99	14-113	
Fluoranthene	813	721	80	4	99	10-110	
Fluorene	813	612	75	4	99	23-110	
Indeno[1,2,3-cd]pyrene	813	749	91	4	99	10-114	
Naphthalene	813	602	73	24	99	10-111	
Phenanthrene	813	689	78	2	99	10-166	
Pyrene	813	774	88	1	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-195413/2 CCVIS		146822	6.17	586801	7.29	315463	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-195413/2 CCVIS		509104	10.05	531332	12.30	450749	13.91

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195413/2 Date Analyzed: 08/29/2015 09:41

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50829002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		146822	6.17	586801	7.29	315463	8.79
UPPER LIMIT		293644	6.67	1173602	7.79	630926	9.29
LOWER LIMIT		73411	5.67	293401	6.79	157732	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-195059/23-A		121180	6.17	468221	7.29	258149	8.79
LCS 240-195059/24-A		118290	6.17	490542	7.29	274862	8.79
MB 240-195060/5-A		123410	6.17	487065	7.29	267087	8.79
LCS 240-195060/6-A		122046	6.17	496582	7.30	274286	8.79
240-54724-19	D-DUP07-082515	119729	6.17	464778	7.29	252750	8.79
240-54724-19 MS	D-DUP07-082515 MS	121016	6.17	493280	7.29	275816	8.79
240-54724-19 MSD	D-DUP07-082515 MSD	121990	6.17	481889	7.30	266485	8.80
240-54724-17	D-VB-D-1-2	123117	6.17	505214	7.29	276422	8.79
240-54724-17 MS	D-VB-D-1-2 MS	128558	6.17	515101	7.29	284646	8.79
240-54724-17 MSD	D-VB-D-1-2 MSD	132170	6.17	539229	7.29	306116	8.79
240-54724-16	D-VS-D-4-1	125086	6.17	509450	7.29	286853	8.79
240-54724-15	D-VS-D-3-1	124750	6.17	487353	7.29	267628	8.79
240-54724-8	D-VB-F-9-2	130281	6.17	511012	7.29	275325	8.79
240-54724-10	D-VS-F-2-1	126451	6.17	501401	7.30	274413	8.79
240-54724-13	D-VS-D-1-1	120755	6.17	488420	7.29	264766	8.79
240-54724-14	D-VS-D-2-1	123459	6.17	491306	7.29	271820	8.79
240-54724-3	D-VB-F-3-2	133004	6.17	549198	7.29	304649	8.79
240-54724-4	D-VB-F-4-2	130548	6.17	518747	7.29	291973	8.79
240-54724-18	D-VB-D-2-2	120761	6.17	473407	7.29	259327	8.79
240-54724-1	D-VB-F-1-2	126447	6.17	497693	7.29	271022	8.79
240-54724-2	D-VB-F-2-2	125172	6.17	478622	7.29	260494	8.79
240-54724-5	D-VB-F-5-2	127808	6.17	509795	7.29	283474	8.79
240-54724-6	D-VB-F-7-2	131582	6.17	522919	7.29	293294	8.79
240-54724-7	D-VB-F-8-2	138477	6.17	549756	7.29	309752	8.79
240-54724-9	D-VS-F-1-1	135317	6.17	535878	7.29	291888	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195413/2 Date Analyzed: 08/29/2015 09:41

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50829002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		509104	10.05	531332	12.30	450749	13.91
UPPER LIMIT		1018208	10.55	1062664	12.80	901498	14.41
LOWER LIMIT		254552	9.55	265666	11.80	225375	13.41
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-195059/23-A		412192	10.05	425164	12.30	350570	13.91
LCS 240-195059/24-A		432380	10.05	460307	12.30	381255	13.91
MB 240-195060/5-A		428865	10.05	436772	12.30	358410	13.91
LCS 240-195060/6-A		437408	10.05	467111	12.30	381539	13.91
240-54724-19	D-DUP07-082515	421767	10.05	457076	12.30	378760	13.91
240-54724-19 MS	D-DUP07-082515 MS	443165	10.05	481660	12.30	424383	13.91
240-54724-19 MSD	D-DUP07-082515 MSD	440477	10.05	454722	12.30	413016	13.91
240-54724-17	D-VB-D-1-2	442762	10.05	473513	12.30	410256	13.91
240-54724-17 MS	D-VB-D-1-2 MS	459777	10.05	495820	12.30	443725	13.91
240-54724-17 MSD	D-VB-D-1-2 MSD	489885	10.05	519069	12.30	467209	13.91
240-54724-16	D-VS-D-4-1	460879	10.05	486288	12.30	432381	13.91
240-54724-15	D-VS-D-3-1	425411	10.05	449688	12.30	401419	13.91
240-54724-8	D-VB-F-9-2	454449	10.05	487475	12.30	413755	13.91
240-54724-10	D-VS-F-2-1	434052	10.05	452957	12.30	411009	13.91
240-54724-13	D-VS-D-1-1	421436	10.05	456407	12.30	397693	13.91
240-54724-14	D-VS-D-2-1	445305	10.05	473983	12.30	421345	13.91
240-54724-3	D-VB-F-3-2	497003	10.05	524308	12.30	431672	13.91
240-54724-4	D-VB-F-4-2	480539	10.05	520067	12.30	428213	13.91
240-54724-18	D-VB-D-2-2	417576	10.05	449309	12.30	415887	13.91
240-54724-1	D-VB-F-1-2	439449	10.05	474389	12.30	432542	13.91
240-54724-2	D-VB-F-2-2	430937	10.05	468240	12.30	444443	13.91
240-54724-5	D-VB-F-5-2	477744	10.05	519175	12.30	445481	13.91
240-54724-6	D-VB-F-7-2	477753	10.05	541161	12.30	484960	13.91
240-54724-7	D-VB-F-8-2	498674	10.05	566527	12.30	502956	13.91
240-54724-9	D-VS-F-1-1	489939	10.05	544436	12.30	479197	13.91

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-194251/4 IC		08/23/2015 13:03	1		CLP-1 0.53(mm)
STD005 240-194251/4 IC		08/23/2015 13:03	1	P1100004.D	CLP-2 0.53(mm)
STD01 240-194251/5 IC		08/23/2015 13:22	1		CLP-1 0.53(mm)
STD01 240-194251/5 IC		08/23/2015 13:22	1	P1100005.D	CLP-2 0.53(mm)
STD02 240-194251/6 IC		08/23/2015 13:40	1		CLP-1 0.53(mm)
STD02 240-194251/6 IC		08/23/2015 13:40	1	P1100006.D	CLP-2 0.53(mm)
STD05 240-194251/7 IC		08/23/2015 13:58	1		CLP-1 0.53(mm)
STD05 240-194251/7 IC		08/23/2015 13:58	1	P1100007.D	CLP-2 0.53(mm)
STD1 240-194251/8 IC		08/23/2015 14:16	1		CLP-1 0.53(mm)
STD1 240-194251/8 IC		08/23/2015 14:16	1	P1100008.D	CLP-2 0.53(mm)
STD2 240-194251/9 IC		08/23/2015 14:35	1		CLP-1 0.53(mm)
STD2 240-194251/9 IC		08/23/2015 14:35	1	P1100009.D	CLP-2 0.53(mm)
STD005 240-194251/10 IC		08/23/2015 14:53	1		CLP-1 0.53(mm)
STD005 240-194251/10 IC		08/23/2015 14:53	1	P1100010.D	CLP-2 0.53(mm)
STD01 240-194251/11 IC		08/23/2015 15:11	1		CLP-1 0.53(mm)
STD01 240-194251/11 IC		08/23/2015 15:11	1	P1100011.D	CLP-2 0.53(mm)
STD02 240-194251/12 IC		08/23/2015 15:29	1		CLP-1 0.53(mm)
STD02 240-194251/12 IC		08/23/2015 15:29	1	P1100012.D	CLP-2 0.53(mm)
STD05 240-194251/13 IC		08/23/2015 15:47	1		CLP-1 0.53(mm)
STD05 240-194251/13 IC		08/23/2015 15:47	1	P1100013.D	CLP-2 0.53(mm)
STD1 240-194251/14 IC		08/23/2015 16:06	1		CLP-1 0.53(mm)
STD1 240-194251/14 IC		08/23/2015 16:06	1	P1100014.D	CLP-2 0.53(mm)
STD005 240-194251/16 IC		08/23/2015 16:42	1		CLP-1 0.53(mm)
STD005 240-194251/16 IC		08/23/2015 16:42	1	P1100016.D	CLP-2 0.53(mm)
STD01 240-194251/17 IC		08/23/2015 17:00	1		CLP-1 0.53(mm)
STD01 240-194251/17 IC		08/23/2015 17:00	1	P1100017.D	CLP-2 0.53(mm)
STD02 240-194251/18 IC		08/23/2015 17:19	1		CLP-1 0.53(mm)
STD02 240-194251/18 IC		08/23/2015 17:19	1	P1100018.D	CLP-2 0.53(mm)
STD05 240-194251/19 IC		08/23/2015 17:37	1		CLP-1 0.53(mm)
STD05 240-194251/19 IC		08/23/2015 17:37	1	P1100019.D	CLP-2 0.53(mm)
STD1 240-194251/20 IC		08/23/2015 17:55	1		CLP-1 0.53(mm)
STD1 240-194251/20 IC		08/23/2015 17:55	1	P1100020.D	CLP-2 0.53(mm)
STD2 240-194251/21 IC		08/23/2015 18:13	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD2 240-194251/21 IC		08/23/2015 18:13	1	P1100021.D	CLP-2 0.53(mm)
STD005 240-194251/22 IC		08/23/2015 18:31	1		CLP-1 0.53(mm)
STD005 240-194251/22 IC		08/23/2015 18:31	1	P1100022.D	CLP-2 0.53(mm)
STD01 240-194251/23 IC		08/23/2015 18:50	1		CLP-1 0.53(mm)
STD01 240-194251/23 IC		08/23/2015 18:50	1	P1100023.D	CLP-2 0.53(mm)
STD02 240-194251/24 IC		08/23/2015 19:08	1		CLP-1 0.53(mm)
STD02 240-194251/24 IC		08/23/2015 19:08	1	P1100024.D	CLP-2 0.53(mm)
STD05 240-194251/25 IC		08/23/2015 19:26	1		CLP-1 0.53(mm)
STD05 240-194251/25 IC		08/23/2015 19:26	1	P1100025.D	CLP-2 0.53(mm)
STD1 240-194251/26 IC		08/23/2015 19:44	1		CLP-1 0.53(mm)
STD1 240-194251/26 IC		08/23/2015 19:44	1	P1100026.D	CLP-2 0.53(mm)
STD2 240-194251/27 IC		08/23/2015 20:03	1		CLP-1 0.53(mm)
STD2 240-194251/27 IC		08/23/2015 20:03	1	P1100027.D	CLP-2 0.53(mm)
STD005 240-194251/28 IC		08/23/2015 20:21	1		CLP-1 0.53(mm)
STD005 240-194251/28 IC		08/23/2015 20:21	1	P1100028.D	CLP-2 0.53(mm)
STD01 240-194251/29 IC		08/23/2015 20:39	1		CLP-1 0.53(mm)
STD01 240-194251/29 IC		08/23/2015 20:39	1	P1100029.D	CLP-2 0.53(mm)
STD02 240-194251/30 IC		08/23/2015 20:57	1		CLP-1 0.53(mm)
STD02 240-194251/30 IC		08/23/2015 20:57	1	P1100030.D	CLP-2 0.53(mm)
STD05 240-194251/31 ICIS		08/23/2015 21:15	1		CLP-1 0.53(mm)
STD05 240-194251/31 ICIS		08/23/2015 21:15	1	P1100031.D	CLP-2 0.53(mm)
STD1 240-194251/32 IC		08/23/2015 21:34	1		CLP-1 0.53(mm)
STD1 240-194251/32 IC		08/23/2015 21:34	1	P1100032.D	CLP-2 0.53(mm)
STD2 240-194251/33 IC		08/23/2015 21:52	1		CLP-1 0.53(mm)
STD2 240-194251/33 IC		08/23/2015 21:52	1	P1100033.D	CLP-2 0.53(mm)
ICV 240-194251/34		08/23/2015 22:10	1		CLP-1 0.53(mm)
ICV 240-194251/34		08/23/2015 22:10	1		CLP-2 0.53(mm)
ICV 240-194251/35		08/23/2015 22:28	1		CLP-1 0.53(mm)
ICV 240-194251/35		08/23/2015 22:28	1		CLP-2 0.53(mm)
ICV 240-194251/36		08/23/2015 22:47	1		CLP-1 0.53(mm)
ICV 240-194251/36		08/23/2015 22:47	1		CLP-2 0.53(mm)
ICV 240-194251/37		08/23/2015 23:05	1		CLP-1 0.53(mm)
ICV 240-194251/37		08/23/2015 23:05	1		CLP-2 0.53(mm)
ICV 240-194251/38		08/23/2015 23:23	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/23/2015 13:03

Analysis Batch Number: 194251 End Date: 08/24/2015 23:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-194251/38		08/23/2015 23:23	1		CLP-2 0.53(mm)
ICV 240-194251/39		08/23/2015 23:41	1		CLP-1 0.53(mm)
ICV 240-194251/39		08/23/2015 23:41	1	P1100039.D	CLP-2 0.53(mm)
ICV 240-194251/41		08/24/2015 00:18	1		CLP-1 0.53(mm)
ICV 240-194251/41		08/24/2015 00:18	1		CLP-2 0.53(mm)
ICV 240-194251/40		08/24/2015 23:59	1		CLP-1 0.53(mm)
ICV 240-194251/40		08/24/2015 23:59	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: A2HP11 Start Date: 08/30/2015 17:26

Analysis Batch Number: 195464 End Date: 08/30/2015 19:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-195464/3 CCVIS		08/30/2015 17:26	1		CLP-1 0.53(mm)
CCV 240-195464/3 CCVIS		08/30/2015 17:26	1	P1100003.D	CLP-2 0.53(mm)
CCV 240-195464/4		08/30/2015 17:44	1		CLP-1 0.53(mm)
CCV 240-195464/4		08/30/2015 17:44	1	P1100004.D	CLP-2 0.53(mm)
CCV 240-195464/5		08/30/2015 18:02	1		CLP-1 0.53(mm)
CCV 240-195464/5		08/30/2015 18:02	1	P1100005.D	CLP-2 0.53(mm)
CCV 240-195464/6		08/30/2015 18:20	1		CLP-1 0.53(mm)
CCV 240-195464/6		08/30/2015 18:20	1	P1100006.D	CLP-2 0.53(mm)
CCV 240-195464/7		08/30/2015 18:39	1		CLP-1 0.53(mm)
CCV 240-195464/7		08/30/2015 18:39	1	P1100007.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:15	1		CLP-1 0.53(mm)
240-54724-11	WC-DFRAC-082515	08/30/2015 19:15	1	P1100009.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:33	1		CLP-1 0.53(mm)
MB 240-195418/2-A		08/30/2015 19:33	1	P1100010.D	CLP-2 0.53(mm)
ZZZZZ		08/30/2015 19:51	1		CLP-1 0.53(mm)
LCS 240-195418/3-A		08/30/2015 19:51	1	P1100011.D	CLP-2 0.53(mm)

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 13:03 Calibration End Date: 08/23/2015 14:35 Calibration ID: 30249

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/4	P1100004.D
Level 2	STD01 240-194251/5	P1100005.D
Level 3	STD02 240-194251/6	P1100006.D
Level 4	STD05 240-194251/7	P1100007.D
Level 5	STD1 240-194251/8	P1100008.D
Level 6	STD2 240-194251/9	P1100009.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0271 0.0204	0.0251	0.0231	0.0233	0.0210	Lin1	0.0004	0.0206							0.9980		0.9900
PCB-1232 Peak 2	0.0197 0.0159	0.0202	0.0185	0.0186	0.0166	Lin1	0.0003	0.0163							0.9970		0.9900
PCB-1232 Peak 3	0.0406 0.0355	0.0388	0.0363	0.0383	0.0358	Lin1	0.0003	0.0357							0.9990		0.9900
PCB-1232 Peak 4	0.0167 0.0147	0.0160	0.0151	0.0170	0.0154	Lin1	0.0001	0.0151							0.9970		0.9900
PCB-1232 Peak 5	0.0133 0.0100	0.0130	0.0119	0.0115	0.0104	Lin1	0.0002	0.0101							0.9980		0.9900
PCB-1262 Peak 1	0.0509 0.0415	0.0474	0.0448	0.0461	0.0424	Lin1	0.0006	0.0419							0.9990		0.9900
PCB-1262 Peak 2	0.0720 0.0621	0.0681	0.0628	0.0668	0.0623	Lin1	0.0005	0.0623							0.9990		0.9900
PCB-1262 Peak 3	0.0701 0.0606	0.0659	0.0625	0.0648	0.0608	Lin1	0.0005	0.0607							0.9990		0.9900
PCB-1262 Peak 4	0.1279 0.1248	0.1240	0.1204	0.1250	0.1224	Lin1	0	0.1239							1.0000		0.9900
PCB-1262 Peak 5	0.0925 0.0860	0.0893	0.0853	0.0869	0.0848	Lin1	0.0003	0.0854							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 13:03 Calibration End Date: 08/23/2015 14:35 Calibration ID: 30249

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/4	P1100004.D
Level 2	STD01 240-194251/5	P1100005.D
Level 3	STD02 240-194251/6	P1100006.D
Level 4	STD05 240-194251/7	P1100007.D
Level 5	STD1 240-194251/8	P1100008.D
Level 6	STD2 240-194251/9	P1100009.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	2655461 77580162	4908221	9067696	21581143	40248747	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	1930012 60648088	3952915	7259208	17252701	31867952	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	3972848 135024559	7580215	14220820	35457669	68756022	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	1639720 56129870	3137715	5911148	15801653	29480744	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	1303623 38138145	2538340	4641916	10664032	19892168	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	4986418 158174338	9277872	17535417	42689699	81280317	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	7054682 236646750	13308679	24605331	61868550	119555185	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	6860501 230612617	12890349	24475153	60096065	116591923	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	12530416 475145734	24245256	47164510	115879935	234723880	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	9059042 327353909	17460611	33401336	80550755	162664653	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 16:42 Calibration End Date: 08/23/2015 18:13 Calibration ID: 30261

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/16	P1100016.D
Level 2	STD01 240-194251/17	P1100017.D
Level 3	STD02 240-194251/18	P1100018.D
Level 4	STD05 240-194251/19	P1100019.D
Level 5	STD1 240-194251/20	P1100020.D
Level 6	STD2 240-194251/21	P1100021.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0195 0.0149	0.0179	0.0171	0.0151	0.0152	Lin1	0.0003	0.0148							1.0000		0.9900
PCB-1248 Peak 2	0.0494 0.0437	0.0461	0.0433	0.0412	0.0429	Lin1	0.0002	0.0429							0.9990		0.9900
PCB-1248 Peak 3	0.0407 0.0331	0.0371	0.0345	0.0321	0.0330	Lin1	0.0004	0.0326							1.0000		0.9900
PCB-1248 Peak 4	0.0619 0.0423	0.0517	0.0440	0.0414	0.0419	Lin1	0.0009	0.0412							0.9990		0.9900
PCB-1248 Peak 5	0.0268 0.0226	0.0256	0.0237	0.0221	0.0225	Lin1	0.0002	0.0223							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 18:31 Calibration End Date: 08/23/2015 20:03 Calibration ID: 30267

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/22	P1100022.D
Level 2	STD01 240-194251/23	P1100023.D
Level 3	STD02 240-194251/24	P1100024.D
Level 4	STD05 240-194251/25	P1100025.D
Level 5	STD1 240-194251/26	P1100026.D
Level 6	STD2 240-194251/27	P1100027.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0127 0.0092	0.0132	0.0113	0.0109	0.0105	Lin1	0.0003	0.0096							0.9940		0.9900
PCB-1221 Peak 2	0.0090 0.0061	0.0088	0.0076	0.0073	0.0069	Lin1	0.0002	0.0063							0.9940		0.9900
PCB-1221 Peak 3	0.0322 0.0230	0.0318	0.0272	0.0266	0.0258	Lin1	0.0006	0.0238							0.9960		0.9900
PCB-1254 Peak 1	0.0521 0.0343	0.0481	0.0400	0.0392	0.0379	Lin1	0.0011	0.0351							0.9970		0.9900
PCB-1254 Peak 2	0.0519 0.0408	0.0522	0.0455	0.0454	0.0450	Lin1	0.0007	0.0420							0.9970		0.9900
PCB-1254 Peak 3	0.0773 0.0641	0.0651	0.0689	0.0702	0.0705	Lin1	0.0005	0.0662							0.9970		0.9900
PCB-1254 Peak 4	0.0532 0.0450	0.0530	0.0485	0.0487	0.0491	Lin1	0.0005	0.0462							0.9980		0.9900
PCB-1254 Peak 5	0.0764 0.0617	0.0730	0.0637	0.0670	0.0675	Lin1	0.0008	0.0633							0.9980		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 194251

SDG No.:

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2015 20:21 Calibration End Date: 08/23/2015 21:52 Calibration ID: 30273

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-194251/28	P1100028.D
Level 2	STD01 240-194251/29	P1100029.D
Level 3	STD02 240-194251/30	P1100030.D
Level 4	STD05 240-194251/31	P1100031.D
Level 5	STD1 240-194251/32	P1100032.D
Level 6	STD2 240-194251/33	P1100033.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0245 0.0177	0.0230	0.0190	0.0182	0.0167	Lin1	0.0004	0.0171							0.9990		0.9900
PCB-1016 Peak 2	0.0436 0.0330	0.0427	0.0357	0.0345	0.0317	Lin1	0.0007	0.0323							0.9990		0.9900
PCB-1016 Peak 3	0.0885 0.0814	0.0884	0.0781	0.0802	0.0763	Lin1	0.0004	0.0794							0.9990		0.9900
PCB-1016 Peak 4	0.0359 0.0319	0.0357	0.0302	0.0322	0.0301	Lin1	0.0002	0.0312							0.9990		0.9900
PCB-1016 Peak 5	0.0333 0.0244	0.0304	0.0260	0.0248	0.0234	Lin1	0.0005	0.0237							0.9990		0.9900
PCB-1260 Peak 1	0.0631 0.0508	0.0602	0.0512	0.0508	0.0476	Lin1	0.0007	0.0493							0.9990		0.9900
PCB-1260 Peak 2	0.0650 0.0555	0.0633	0.0554	0.0555	0.0525	Lin1	0.0006	0.0542							0.9990		0.9900
PCB-1260 Peak 3	0.0966 0.0844	0.0942	0.0817	0.0841	0.0795	Lin1	0.0007	0.0823							0.9990		0.9900
PCB-1260 Peak 4	0.1067 0.1027	0.1063	0.0969	0.0996	0.0966	Lin1	0.0002	0.1003							0.9990		0.9900
PCB-1260 Peak 5	0.0787 0.0713	0.0779	0.0698	0.0706	0.0678	Lin1	0.0005	0.0698							0.9990		0.9900
Tetrachloro-m-xylene	1.1661 1.1883	1.2290	1.0741	1.0865	1.0882	Lin1	0	1.1456							0.9970		0.9900
DCB Decachlorobiphenyl	0.9724 0.8163	0.9713	0.8406	0.7978	0.7812	Lin1	0.0005	0.7957							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-194251/39 Calibration Date: 08/23/2015 23:41

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100039.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0162		0.921	1.00	-7.9	20.0
PCB-1016 Peak 2	Lin1		0.0322		0.975	1.00	-2.5	20.0
PCB-1016 Peak 3	Lin1		0.0790		0.989	1.00	-1.1	20.0
PCB-1016 Peak 4	Lin1		0.0308		0.978	1.00	-2.2	20.0
PCB-1016 Peak 5	Lin1		0.0236		0.974	1.00	-2.6	20.0
PCB-1260 Peak 1	Lin1		0.0502		1.00	1.00	0.5	20.0
PCB-1260 Peak 2	Lin1		0.0560		1.02	1.00	2.3	20.0
PCB-1260 Peak 3	Lin1		0.0886		1.07	1.00	6.8	20.0
PCB-1260 Peak 4	Lin1		0.0980		0.975	1.00	-2.5	20.0
PCB-1260 Peak 5	Lin1		0.0700		0.996	1.00	-0.4	20.0
Tetrachloro-m-xylene	Lin1		1.039		0.0454	0.0500	-9.2	20.0
DCB Decachlorobiphenyl	Lin1		0.7733		0.0479	0.0500	-4.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: ICV 240-194251/39 Calibration Date: 08/23/2015 23:41

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100039.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.68	5.65	5.71
PCB-1016 Peak 2	6.21	6.18	6.24
PCB-1016 Peak 3	6.79	6.76	6.82
PCB-1016 Peak 4	6.95	6.92	6.98
PCB-1016 Peak 5	7.53	7.50	7.56
PCB-1260 Peak 1	9.04	9.01	9.07
PCB-1260 Peak 2	9.29	9.26	9.32
PCB-1260 Peak 3	9.70	9.67	9.73
PCB-1260 Peak 4	10.44	10.41	10.47
PCB-1260 Peak 5	10.83	10.80	10.86
Tetrachloro-m-xylene	4.99	4.96	5.02
DCB Decachlorobiphenyl	11.93	11.90	11.96

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/3 Calibration Date: 08/30/2015 17:26

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0171		0.474	0.500	-5.1	20.0
PCB-1016 Peak 2	Lin1		0.0323		0.477	0.500	-4.5	20.0
PCB-1016 Peak 3	Lin1		0.0753		0.469	0.500	-6.3	20.0
PCB-1016 Peak 4	Lin1		0.0298		0.470	0.500	-6.0	20.0
PCB-1016 Peak 5	Lin1		0.0234		0.471	0.500	-5.9	20.0
PCB-1260 Peak 1	Lin1		0.0474		0.466	0.500	-6.7	20.0
PCB-1260 Peak 2	Lin1		0.0540		0.488	0.500	-2.5	20.0
PCB-1260 Peak 3	Lin1		0.0813		0.486	0.500	-2.8	20.0
PCB-1260 Peak 4	Lin1		0.1006		0.500	0.500	-0.0	20.0
PCB-1260 Peak 5	Lin1		0.0651		0.460	0.500	-8.0	20.0
Tetrachloro-m-xylene	Lin1		1.023		0.0224	0.0250	-10.5	20.0
DCB Decachlorobiphenyl	Lin1		0.9696		0.0298	0.0250	19.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/3 Calibration Date: 08/30/2015 17:26

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 20:21

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 21:52

Lab File ID: P1100003.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	5.74	5.71	5.77
PCB-1016 Peak 2	6.27	6.24	6.30
PCB-1016 Peak 3	6.85	6.82	6.88
PCB-1016 Peak 4	7.01	6.98	7.04
PCB-1016 Peak 5	7.59	7.56	7.62
PCB-1260 Peak 1	9.10	9.07	9.13
PCB-1260 Peak 2	9.35	9.32	9.38
PCB-1260 Peak 3	9.76	9.73	9.79
PCB-1260 Peak 4	10.49	10.46	10.52
PCB-1260 Peak 5	10.87	10.84	10.90
Tetrachloro-m-xylene	5.05	5.02	5.08
DCB Decachlorobiphenyl	11.97	11.94	12.00

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/4 Calibration Date: 08/30/2015 17:44

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 13:03

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 14:35

Lab File ID: P1100004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0208		0.484	0.500	-3.2	20.0
PCB-1232 Peak 2	Lin1		0.0164		0.486	0.500	-2.8	20.0
PCB-1232 Peak 3	Lin1		0.0342		0.471	0.500	-5.9	20.0
PCB-1232 Peak 4	Lin1		0.0145		0.473	0.500	-5.4	20.0
PCB-1232 Peak 5	Lin1		0.0103		0.485	0.500	-3.0	20.0
PCB-1262 Peak 1	Lin1		0.0400		0.464	0.500	-7.2	20.0
PCB-1262 Peak 2	Lin1		0.0629		0.496	0.500	-0.7	20.0
PCB-1262 Peak 3	Lin1		0.0592		0.479	0.500	-4.2	20.0
PCB-1262 Peak 4	Lin1		0.1230		0.496	0.500	-0.8	20.0
PCB-1262 Peak 5	Lin1		0.0789		0.458	0.500	-8.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/4 Calibration Date: 08/30/2015 17:44

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 13:03

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 14:35

Lab File ID: P1100004.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	5.74	5.71	5.77
PCB-1232 Peak 2	6.27	6.24	6.30
PCB-1232 Peak 3	6.85	6.82	6.88
PCB-1232 Peak 4	7.01	6.98	7.04
PCB-1232 Peak 5	7.59	7.56	7.62
PCB-1262 Peak 1	9.10	9.07	9.13
PCB-1262 Peak 2	9.87	9.84	9.90
PCB-1262 Peak 3	10.21	10.18	10.24
PCB-1262 Peak 4	10.49	10.46	10.52
PCB-1262 Peak 5	10.87	10.84	10.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/5 Calibration Date: 08/30/2015 18:02

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 14:53

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 16:06

Lab File ID: P1100005.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0135		0.469	0.500	-6.2	20.0
PCB-1242 Peak 2	Lin1		0.0253		0.470	0.500	-5.9	20.0
PCB-1242 Peak 3	Lin1		0.0578		0.456	0.500	-8.7	20.0
PCB-1242 Peak 4	Lin1		0.0231		0.455	0.500	-9.0	20.0
PCB-1242 Peak 5	Lin1		0.0189		0.470	0.500	-6.0	20.0
PCB-1268 Peak 1	Lin1		0.1164		0.441	0.500	-11.8	20.0
PCB-1268 Peak 2	Lin1		0.1139		0.445	0.500	-10.9	20.0
PCB-1268 Peak 3	Lin1		0.1012		0.491	0.500	-1.8	20.0
PCB-1268 Peak 4	Lin1		0.0454		0.507	0.500	1.4	20.0
PCB-1268 Peak 5	Lin1		0.3555		0.495	0.500	-0.9	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/5 Calibration Date: 08/30/2015 18:02

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 14:53

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 16:06

Lab File ID: P1100005.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	5.74	5.71	5.77
PCB-1242 Peak 2	6.27	6.24	6.30
PCB-1242 Peak 3	6.85	6.82	6.88
PCB-1242 Peak 4	7.01	6.98	7.04
PCB-1242 Peak 5	7.59	7.56	7.62
PCB-1268 Peak 1	10.87	10.84	10.90
PCB-1268 Peak 2	10.91	10.88	10.94
PCB-1268 Peak 3	11.16	11.13	11.19
PCB-1268 Peak 4	11.44	11.41	11.47
PCB-1268 Peak 5	11.74	11.71	11.77

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/6 Calibration Date: 08/30/2015 18:20

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 16:42

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 18:13

Lab File ID: P1100006.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0140		0.455	0.500	-9.1	20.0
PCB-1248 Peak 2	Lin1		0.0384		0.442	0.500	-11.6	20.0
PCB-1248 Peak 3	Lin1		0.0300		0.449	0.500	-10.2	20.0
PCB-1248 Peak 4	Lin1		0.0386		0.445	0.500	-11.0	20.0
PCB-1248 Peak 5	Lin1		0.0209		0.458	0.500	-8.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/6 Calibration Date: 08/30/2015 18:20

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 16:42

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 18:13

Lab File ID: P1100006.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	6.27	6.24	6.30
PCB-1248 Peak 2	6.84	6.81	6.87
PCB-1248 Peak 3	7.59	7.56	7.62
PCB-1248 Peak 4	8.10	8.07	8.13
PCB-1248 Peak 5	8.87	8.84	8.90

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/7 Calibration Date: 08/30/2015 18:39

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 18:31

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 20:03

Lab File ID: P1100007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0096		0.471	0.500	-5.8	20.0
PCB-1221 Peak 2	Lin1		0.0064		0.478	0.500	-4.4	20.0
PCB-1221 Peak 3	Lin1		0.0236		0.469	0.500	-6.2	20.0
PCB-1254 Peak 1	Lin1		0.0342		0.457	0.500	-8.6	20.0
PCB-1254 Peak 2	Lin1		0.0401		0.460	0.500	-8.0	20.0
PCB-1254 Peak 3	Lin1		0.0629		0.467	0.500	-6.6	20.0
PCB-1254 Peak 4	Lin1		0.0448		0.473	0.500	-5.4	20.0
PCB-1254 Peak 5	Lin1		0.0621		0.478	0.500	-4.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: CCV 240-195464/7 Calibration Date: 08/30/2015 18:39

Instrument ID: A2HP11 Calib Start Date: 08/23/2015 18:31

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 08/23/2015 20:03

Lab File ID: P1100007.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	5.48	5.45	5.51
PCB-1221 Peak 2	5.67	5.64	5.70
PCB-1221 Peak 3	5.74	5.71	5.77
PCB-1254 Peak 1	8.10	8.07	8.13
PCB-1254 Peak 2	8.33	8.30	8.36
PCB-1254 Peak 3	8.87	8.84	8.90
PCB-1254 Peak 4	9.14	9.11	9.17
PCB-1254 Peak 5	9.76	9.73	9.79

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Lab Sample ID: MB 240-195418/2-A

Matrix: Water Date Extracted: 08/29/2015 09:45

Lab File ID:(1) P1100010.D Lab File ID:(2)

Date Analyzed:(1) 08/30/2015 19:33 Date Analyzed:(2)

Instrument ID:(1) A2HP11 Instrument ID:(2)

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
WC-DFRAC-082515	240-54724-11	08/30/2015 19:15	
	LCS 240-195418/3-A	08/30/2015 19:51	

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-195418/2-A

Matrix: Water | Lab File ID: P1100010.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 08/29/2015 09:45

Sample wt/vol: 1000(mL) | Date Analyzed: 08/30/2015 19:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195464 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.17	U	0.50	0.17
11104-28-2	Aroclor-1221	0.13	U	0.50	0.13
11141-16-5	Aroclor-1232	0.16	U	0.50	0.16
53469-21-9	Aroclor-1242	0.22	U	0.50	0.22
12672-29-6	Aroclor-1248	0.10	U	0.50	0.10
11097-69-1	Aroclor-1254	0.16	U	0.50	0.16
11096-82-5	Aroclor-1260	0.17	U	0.50	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	58		21-124
2051-24-3	DCB Decachlorobiphenyl	76		10-131

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP-2 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCB1 #
WC-DFRAC-082515	240-54724-11	47	21
	MB 240-195418/2-A	58	76
	LCS 240-195418/3-A	62	64

	QC LIMITS
TCX = Tetrachloro-m-xylene	21-124
DCB = DCB Decachlorobiphenyl	10-131

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P1100011.D

Lab ID: LCS 240-195418/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	5.00	3.60	72	48-126	
Aroclor-1260	5.00	3.63	73	43-130	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: STD05 240-194251/31 Date Analyzed: 08/23/2015 21:15

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1100031.D Heated Purge: (Y/N) N

Calibration ID: 30273

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		102405102	3.62				
UPPER LIMIT		204810204	4.12				
LOWER LIMIT		51202551	3.12				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194251/39		111025584	3.62				
CCV 240-195464/7		99612972	3.72				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Sample No.: CCV 240-195464/3 Date Analyzed: 08/30/2015 17:26

Instrument ID: A2HP11 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1100003.D Heated Purge: (Y/N) N

Calibration ID: 30273

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		100457521	3.72				
UPPER LIMIT		200915042	4.22				
LOWER LIMIT		50228761	3.22				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-195464/4		96166148	3.72				
CCV 240-195464/5		98262099	3.72				
CCV 240-195464/6		98076388	3.72				
CCV 240-195464/7		99612972	3.72				
240-54724-11	WC-DFRAC-082515	109783715	3.72				
MB 240-195418/2-A		115153264	3.72				
LCS 240-195418/3-A		118003318	3.73				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: WHITEY Method: 1010A

Start Date: 08/28/2015 05:45 End Date: 08/28/2015 11:48

Lab Sample ID	D / F	Type	Time	Analytes																				
				FP																				
LCS 240-195256/1	1	T	05:45	X																				
240-54741-A-4 DU	1	T	06:12	X																				
ZZZZZZ			06:40																					
ZZZZZZ			07:08																					
ZZZZZZ			07:36																					
ZZZZZZ			08:04																					
240-54724-11	1	T	08:32	X																				
ZZZZZZ			09:00																					
ZZZZZZ			09:28																					
ZZZZZZ			09:56																					
ZZZZZZ			10:24																					
ZZZZZZ			10:52																					
ZZZZZZ			11:20																					
ZZZZZZ			11:48																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/26/2015 16:37 End Date: 08/26/2015 17:01

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			16:37																					
ZZZZZZ			16:37																					
ZZZZZZ			16:37																					
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240-54724-1 DU	1	T	16:37	X	X																			
240-54724-1	1	T	16:37	X	X																			
240-54724-2	1	T	16:37	X	X																			
240-54724-3	1	T	16:37	X	X																			
240-54724-4	1	T	16:37	X	X																			
240-54724-5	1	T	17:01	X	X																			
240-54724-6	1	T	17:01	X	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/26/2015 16:37 End Date: 08/26/2015 17:01

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
240-54724-7	1	T	17:01	X	X																		
240-54724-8	1	T	17:01	X	X																		
240-54724-9	1	T	17:01	X	X																		
240-54724-10 DU	1	T	17:01	X	X																		
240-54724-10	1	T	17:01	X	X																		
240-54724-13	1	T	17:01	X	X																		
240-54724-14	1	T	17:01	X	X																		
240-54724-15	1	T	17:01	X	X																		
240-54724-16	1	T	17:01	X	X																		
240-54724-17	1	T	17:01	X	X																		
240-54724-18	1	T	17:01	X	X																		
240-54724-19	1	T	17:01	X	X																		
ZZZZZZ			17:01																				
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ZZZZZZ			17:01																				

Prep Types
T = Total/NA

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 195256 Date: 08/28/2015 06:12								
1010A		240-54741-A-4	Flashpoint	>200	Degrees F			
1010A		240-54741-A-4 DU	Flashpoint	>200	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-54724-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 195256 Date: 08/28/2015 05:45											
						LCS Source: WCP-XYLENE_00017					
1010A	LCS 240-195256/1	Flashpoint	83.00		Degrees F	81.0	102	97-103			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A RL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A XRL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-54724-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

	SAMPLE ID	**WC-DFRAC-082515**				
SAMPLE CALC	**for 2-butanone**					
IS AREA	**DILUTION**	**COMPOUND OF INTEREST AREA**	**IS AMOUNT (ug/L)**	**Final Extract Volume (mL)**	**AVE RRF**	**CONCENTRATION (ug/L)**
1290415	1	14380	10	5	0.1058	1.05
				SampleVolume (mL)		
				5		

	SAMPLE ID	**D-VB-D-2-2**				
SAMPLE CALC	**for fluoranthene**					
IS AREA	**DILUTION**	**COMPOUND OF INTEREST AREA**	**IS AMOUNT (ng/uL)**	**Final Extract Volume (mL)**	**AVE RRF**	**CONCENTRATION (ug/kg)**
417576	4	1783459	4	2	1.2803	4189.03
				SampleWeight (g)		
		PERCENT SOLID		29.77		
		85.6				

Sample Calculation

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1

SDG No.:

Client Sample ID: WC-DFRAC-082515 | Lab Sample ID: 240-54724-11

Matrix: Water | Lab File ID: UXJ8735.D

Analysis Method: 8260C | Date Collected: 08/25/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 08/27/2015 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 195083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
78-93-3	2-Butanone (MEK)	1.1	J B	10	0.53
110-75-8	2-Chloroethyl vinyl ether	0.59	U F1	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
67-64-1	Acetone	6.2	J B	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
108-86-1	Bromobenzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25

TestAmerica Canton
Target Compound Quantitation Report

Sample Calculation

Data File: \\ChromNA\Canton\ChromData\A3UX11\20150827-46718.b\UXJ8735.D
Lims ID: 240-54724-B-11 Lab Sample ID: 240-54724-11
Client ID: WC-DFRAC-082515
Sample Type: Client
Inject. Date: 27-Aug-2015 13:04:30 ALS Bottle#: 8 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0046718-033
Misc. Info.: J50827A,8260LLUX11,,43582
Operator ID: 43582 Instrument ID: A3UX11

Method: \\ChromNA\Canton\ChromData\A3UX11\20150827-46718.b\8260_11.m
Limit Group: MSV 8260DOD ICAL
Last Update: 28-Aug-2015 06:45:21 Calib Date: 13-Aug-2015 16:53:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX11\20150813-46285.b\UXJ8327.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: evansle Date: 27-Aug-2015 13:33:16

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	5.115	5.115	0.000	98	1290415	10.0	
*	2 Chlorobenzene-d5	117	7.778	7.778	0.000	87	773744	10.0	
*	3 1,4-Dichlorobenzene-d4	152	10.026	10.026	0.000	96	250845	10.0	
$	4 Dibromofluoromethane (Surr	113	4.547	4.547	0.000	96	269864	7.47	
$	5 1,2-Dichloroethane-d4 (Sur	65	4.831	4.831	0.000	98	345252	7.28	
$	6 Toluene-d8 (Surr)	98	6.476	6.476	0.000	94	1129077	7.08	
$	7 4-Bromofluorobenzene (Surr	95	8.890	8.890	0.000	89	280127	7.50	
	9 Dichlorodifluoromethane	85		1.518				ND	
	10 Chloromethane	50	1.648	1.648	0.000	99	31937	0.8158	
	12 Vinyl chloride	62		1.743				ND	
	15 Bromomethane	94		2.015				ND	
	16 Chloroethane	64		2.109				ND	
	18 Trichlorofluoromethane	101		2.311				ND	
	21 1,1-Dichloroethene	96		2.737				ND	
	22 1,1,2-Trichloro-1,2,2-trif	151		2.748				ND	
	23 Acetone	43	2.760	2.760	0.000	99	85315	6.21	
	26 Carbon disulfide	76		2.926				ND	
	30 Methylene Chloride	84		3.115				ND	
	31 2-Methyl-2-propanol	59		3.198				ND	
	33 Methyl tert-butyl ether	73		3.340				ND	
	34 trans-1,2-Dichloroethene	96		3.352				ND	
	36 1,1-Dichloroethane	63		3.683				ND	
	37 Vinyl acetate	43		3.719				ND	
	38 Isopropyl ether	87		3.742				ND	
	40 Tert-butyl ethyl ether	59		4.038				ND	
	41 cis-1,2-Dichloroethene	96		4.157				ND	
	43 2,2-Dichloropropane	77		4.168				ND	
	42 2-Butanone (MEK)	43	4.168	4.168	0.000	98	14380	1.05	
	47 Chlorobromomethane	128		4.358				ND	
	49 Chloroform	83		4.417				ND	
	50 1,1,1-Trichloroethane	97		4.583				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 193142

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/13/2015 12:22 Calibration End Date: 08/13/2015 14:14 Calibration ID: 30116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2339 0.2320	0.2466	0.2339	0.2374	0.2312	Ave		0.2358				2.4		15.0			
Methyl acetate	0.2146 0.1774	0.1974	0.1849	0.1853	0.1777	Ave		0.1896			0.1000	7.5		15.0			
Methylene Chloride	0.7817 0.3051	0.6001	0.4326	0.3583	0.3299	Lin1	0.5426	0.2984			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0127 0.0124	0.0159	0.0153	0.0145	0.0145	Ave		0.0142				9.9		15.0			
Acrylonitrile	0.0913 0.0853	0.0896	0.0865	0.0864	0.0859	Ave		0.0875				2.7		15.0			
Methyl tert-butyl ether	0.8971 0.8895	0.9038	0.8953	0.9003	0.9036	Ave		0.8983			0.1000	0.6		15.0			
trans-1,2-Dichloroethene	0.3354 0.3424	0.3606	0.3503	0.3527	0.3442	Ave		0.3476			0.1000	2.5		15.0			
Hexane	0.0848 0.0771	0.0748	0.0737	0.0751	0.0738	Ave		0.0766				5.5		15.0			
1,1-Dichloroethane	0.6147 0.6181	0.6293	0.6211	0.6154	0.6139	Ave		0.6188			0.1000	0.9		15.0			
Vinyl acetate	0.4062 0.4465	0.3977	0.4149	0.4299	0.4247	Ave		0.4200				4.2		15.0			
cis-1,2-Dichloroethene	0.3598 0.3676	0.3704	0.3645	0.3510	0.3687	Ave		0.3637			0.1000	2.0		15.0			
2-Butanone (MEK)	0.1262 0.1059	0.0889	0.1098	0.1011	0.1027	Ave		0.1058			0.0500	11.6		15.0			
2,2-Dichloropropane	0.3168 0.3372	0.3374	0.3355	0.3316	0.3433	Ave		0.3336				2.7		15.0			
Bromochloromethane	0.1745 0.1673	0.1709	0.1648	0.1620	0.1644	Ave		0.1673				2.8		15.0			
Tetrahydrofuran	0.0751 0.0645	0.0665	0.0628	0.0644	0.0637	Ave		0.0662				6.9		15.0			
Chloroform	0.6241 0.5929	0.6432	0.5863	0.5755	0.5871	Ave		0.6015				4.4		15.0			
1,1,1-Trichloroethane	0.4366 0.4457	0.4647	0.4329	0.4241	0.4549	Ave		0.4431			0.1000	3.4		15.0			
Cyclohexane	0.5217 0.4700	0.4632	0.4479	0.4403	0.4657	Ave		0.4681			0.1000	6.1		15.0			
1,1-Dichloropropene	0.4463 0.4536	0.4442	0.4382	0.4181	0.4524	Ave		0.4421				2.9		15.0			
Carbon tetrachloride	0.3206 0.3671	0.3469	0.3161	0.3238	0.3626	Ave		0.3395			0.1000	6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54724-1
SDG No.:
Client Sample ID: D-VB-D-2-2 | Lab Sample ID: 240-54724-18
Matrix: Solid | Lab File ID: 50829021.D
Analysis Method: 8270D | Date Collected: 08/25/2015 14:30
Extract. Method: 3540C | Date Extracted: 08/27/2015 08:19
Sample wt/vol: 29.77(g) | Date Analyzed: 08/29/2015 17:23
Con. Extract Vol.: 2(mL) | Dilution Factor: 4
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 14.4 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 195413 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	86		31	3.6
208-96-8	Acenaphthylene	82		31	1.6
120-12-7	Anthracene	610		31	3.7
56-55-3	Benzo[a]anthracene	2300		31	3.0
50-32-8	Benzo[a]pyrene	1700		31	3.0
205-99-2	Benzo[b]fluoranthene	2200		31	2.8
191-24-2	Benzo[g,h,i]perylene	1100		31	1.6
207-08-9	Benzo[k]fluoranthene	1000		31	3.2
218-01-9	Chrysene	2100		31	5.2
53-70-3	Dibenz(a,h)anthracene	290		31	3.1
206-44-0	Fluoranthene	4200		31	2.6
86-73-7	Fluorene	150		31	2.5
193-39-5	Indeno[1,2,3-cd]pyrene	950		31	1.6
91-20-3	Naphthalene	23	J	31	3.9
85-01-8	Phenanthrene	2300		31	3.4
129-00-0	Pyrene	3700		31	2.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	78		20-110
367-12-4	2-Fluorophenol (Surr)	84		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

TestAmerica Canton
Target Compound Quantitation Report

Sample Calculation

Data File: \\ChromNA\Canton\ChromData\A4HP9\20150829-46786.b\50829021.D
Lims ID: 240-54724-B-18-A Lab Sample ID: 240-54724-18
Client ID: D-VB-D-2-2
Sample Type: Client
Inject. Date: 29-Aug-2015 17:23:30 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 4.0000
Sample Info: 240-0046786-021
Misc. Info.: 240-54724-B-18-A
Operator ID: 001710 Instrument ID: A4HP9

Method: \\ChromNA\Canton\ChromData\A4HP9\20150829-46786.b\8270 _9.m
Limit Group: MSS 8270D ICAL
Last Update: 31-Aug-2015 09:42:18 Calib Date: 08-Aug-2015 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP9\20150808-46139.b\50808019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK002

First Level Reviewer: ulmanm Date: 31-Aug-2015 09:30:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.166	6.166	0.000	92	120761	4.00	
* 2 Naphthalene-d8	136	7.292	7.291	0.001	98	473407	4.00	
* 3 Acenaphthene-d10	164	8.792	8.791	0.001	90	259327	4.00	
* 4 Phenanthrene-d10	188	10.052	10.051	0.001	95	417576	4.00	
* 5 Chrysene-d12	240	12.302	12.302	0.000	96	449309	4.00	
* 6 Perylene-d12	264	13.913	13.913	0.000	96	415887	4.00	
$ 7 2-Fluorophenol	112	4.911	4.901	0.010	94	111310	2.11	
$ 8 Phenol-d5	99	5.854	5.839	0.015	97	156807	2.10	
$ 9 Nitrobenzene-d5	82	6.652	6.651	0.001	83	177824	1.94	
$ 10 2-Fluorobiphenyl (Surr)	172	8.196	8.195	0.001	98	169825	2.00	
$ 11 2,4,6-Tribromophenol	330	9.460	9.460	0.000	73	6726	0.7975	
$ 12 Terphenyl-d14	244	11.370	11.369	0.001	98	193305	2.34	
75 Naphthalene	128	7.311	7.310	0.001	95	9916	0.0733	
109 Acenaphthylene	152	8.672	8.676	-0.004	96	31647	0.2612	
112 Acenaphthene	153	8.821	8.820	0.001	95	21345	0.2742	
126 Fluorene	166	9.254	9.253	0.001	98	42711	0.4779	
148 Phenanthrene	178	10.071	10.075	-0.004	98	982012	7.42	
149 Anthracene	178	10.114	10.118	-0.004	97	254900	1.94	
159 Fluoranthene	202	11.086	11.085	0.001	99	1783459	13.3	
161 Pyrene	202	11.283	11.282	0.001	94	1512489	11.7	
177 Benzo[a]anthracene	228	12.293	12.292	0.001	100	1001179	7.22	
178 Chrysene	228	12.326	12.326	0.000	97	869311	6.68	
182 Benzo[b]fluoranthene	252	13.413	13.412	0.001	98	848909	6.89	M
183 Benzo[k]fluoranthene	252	13.432	13.441	-0.009	94	396665	3.18	M
184 Benzo[a]pyrene	252	13.841	13.840	0.001	81	645202	5.50	
188 Indeno[1,2,3-cd]pyrene	276	15.649	15.653	-0.004	95	370247	3.04	
189 Dibenz(a,h)anthracene	278	15.645	15.653	-0.008	55	88425	0.9252	
190 Benzo[g,h,i]perylene	276	16.188	16.192	-0.004	95	340651	3.36	

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54724-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 28, 2015**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAH**
MRC SOIL REMEDY, BLOCK D AREA F
SAMPLE DELIVERY GROUP (SDG) – 680-54590-1

SAMPLES: 8/Soil/PAH

D-VB-F1-2-3	D-VB-F1-3-3	D-VB-F1-6-3	D-VB-F1-7-3
D-VB-F1-8-3	D-VB-F1-9-3	D-VS-F1-2-2	D-VS-F1-3-2

Overview

The sample set for MRC Soil Remedy- Block D Area F, SDG 680-54590-1 consists of eight (8) soil environmental samples analyzed for polyaromatic hydrocarbons (PAHs). There are no field duplicate pairs included in this SDG.

The samples were collected by Tetra Tech on August 19, 2015 and analyzed by Test America Laboratories, Inc. Analyses were conducted in accordance to SW-846 Method 8270D analytical and reporting protocol.

Summary

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial / continuing calibrations, laboratory method blank results, surrogate spike/internal standard recoveries, laboratory control sample results, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

Major Problems

- No issues were identified.

Minor Problems

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Notes

All matrix spike/matrix spike duplicate recoveries were outside quality control limits in spiked sample 240-54590-9. The sample concentration was greater than 4X the spike amount. No validation action was taken.

Sample D-VS-F1-3-2 was diluted 4X for analysis.

Nondetected results were reported to the method detection limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 07483	NSAMPLE	D-VB-F1-2-3			D-VB-F1-3-3			D-VB-F1-6-3			D-VB-F1-7-3		
SDG: 240-54590-1	LAB_ID	240-54590-3			240-54590-4			240-54590-5			240-54590-6		
FRACTION: PAH	SAMP_DATE	8/19/2015			8/19/2015			8/19/2015			8/19/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.6			85.5			86.9			85.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		0.88	U		9.4			0.9	U	
ACENAPHTHYLENE		0.41	U		0.41	U		6.9	J	P	0.42	U	
ANTHRACENE		0.9	U		0.91	U		23			0.93	U	
BENZO(A)ANTHRACENE		0.73	U		0.73	U		80			0.75	U	
BENZO(A)PYRENE		0.74	U		0.74	U		70			0.76	U	
BENZO(B)FLUORANTHENE		4.1	J	P	4	J	P	150			5.2	J	P
BENZO(G,H,I)PERYLENE		0.41	U		0.41	U		48			0.42	U	
BENZO(K)FLUORANTHENE		0.79	U		0.79	U		49			0.81	U	
CHRYSENE		1.3	U		1.3	U		130			6.3	J	P
DIBENZO(A,H)ANTHRACENE		0.76	U		0.77	U		16			0.79	U	
FLUORANTHENE		6	J	P	4.9	J	P	160			5.6	J	P
FLUORENE		0.61	U		0.62	U		9.9			0.63	U	
INDENO(1,2,3-CD)PYRENE		0.41	U		0.41	U		47			0.42	U	
NAPHTHALENE		0.95	U		0.95	U		14			0.98	U	
PHENANTHRENE		0.84	U		4.6	J	P	95			4.1	J	P
PYRENE		5.7	J	P	4.5	J	P	140			6.3	J	P

PROJ_NO: 07483	NSAMPLE	D-VB-F1-8-3			D-VB-F1-9-3			D-VS-F1-2-2			D-VS-F1-3-2		
SDG: 240-54590-1	LAB_ID	240-54590-7			240-54590-8			240-54590-1			240-54590-2		
FRACTION: PAH	SAMP_DATE	8/19/2015			8/19/2015			8/19/2015			8/19/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.5			89.0			91.2			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		5.2	J	P	9.5			160		
ACENAPHTHYLENE		0.41	U		0.4	U		9.2			22	J	P
ANTHRACENE		0.91	U		10			17			350		
BENZO(A)ANTHRACENE		0.73	U		39			69			1100		
BENZO(A)PYRENE		0.74	U		39			88			990		
BENZO(B)FLUORANTHENE		0.69	U		61			150			1400		
BENZO(G,H,I)PERYLENE		0.41	U		20			69			500		
BENZO(K)FLUORANTHENE		0.79	U		21			53			560		
CHRYSENE		1.3	U		43			97			1200		
DIBENZO(A,H)ANTHRACENE		0.77	U		6.5	J	P	20			150		
FLUORANTHENE		0.64	U		68			110			3000		
FLUORENE		0.62	U		0.6	U		8.2			120		
INDENO(1,2,3-CD)PYRENE		0.41	U		20			61			470		
NAPHTHALENE		0.95	U		5	J	P	6.7	J	P	39		
PHENANTHRENE		0.85	U		38			63			1400		
PYRENE		4.1	J	P	59			95			2400		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VS-F1-2-2 | Lab Sample ID: 240-54590-1

Matrix: Solid | Lab File ID: 50825009.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:00

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.78(g) | Date Analyzed: 08/25/2015 12:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.5		7.4	0.84
208-96-8	Acenaphthylene	9.2		7.4	0.39
120-12-7	Anthracene	17		7.4	0.86
56-55-3	Benzo[a]anthracene	69		7.4	0.70
50-32-8	Benzo[a]pyrene	88		7.4	0.71
205-99-2	Benzo[b]fluoranthene	150		7.4	0.65
191-24-2	Benzo[g,h,i]perylene	69		7.4	0.39
207-08-9	Benzo[k]fluoranthene	53		7.4	0.75
218-01-9	Chrysene	97		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	20		7.4	0.73
206-44-0	Fluoranthene	110		7.4	0.61
86-73-7	Fluorene	8.2		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	61		7.4	0.39
91-20-3	Naphthalene	6.7	J	7.4	0.91
85-01-8	Phenanthrene	63		7.4	0.81
129-00-0	Pyrene	95		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	73		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	25		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54590-2

Matrix: Solid | Lab File ID: 50825008.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:05

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.89(g) | Date Analyzed: 08/25/2015 11:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160		30	3.4
208-96-8	Acenaphthylene	22	J	30	1.6
120-12-7	Anthracene	350		30	3.5
56-55-3	Benzo[a]anthracene	1100		30	2.8
50-32-8	Benzo[a]pyrene	990		30	2.9
205-99-2	Benzo[b]fluoranthene	1400		30	2.6
191-24-2	Benzo[g,h,i]perylene	500		30	1.6
207-08-9	Benzo[k]fluoranthene	560		30	3.0
218-01-9	Chrysene	1200		30	4.9
53-70-3	Dibenz(a,h)anthracene	150		30	2.9
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	120		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	470		30	1.6
91-20-3	Naphthalene	39		30	3.7
85-01-8	Phenanthrene	1400		30	3.3
129-00-0	Pyrene	2400		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-2-3 | Lab Sample ID: 240-54590-3

Matrix: Solid | Lab File ID: 50825014.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:30

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.94(g) | Date Analyzed: 08/25/2015 14:08

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	0.73	U	7.7	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.7	0.74
205-99-2	Benzo[b]fluoranthene	4.1	J	7.7	0.68
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.7	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.7	0.79
218-01-9	Chrysene	1.3	U	7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	6.0	J	7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	0.84	U	7.7	0.84
129-00-0	Pyrene	5.7	J	7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	66		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-3-3 | Lab Sample ID: 240-54590-4

Matrix: Solid | Lab File ID: 50825012.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:35

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.17(g) | Date Analyzed: 08/25/2015 13:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.8	0.74
205-99-2	Benzo[b]fluoranthene	4.0	J	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	4.9	J	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.95	U	7.8	0.95
85-01-8	Phenanthrene	4.6	J	7.8	0.85
129-00-0	Pyrene	4.5	J	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	24		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-6-3 | Lab Sample ID: 240-54590-5

Matrix: Solid | Lab File ID: 50825010.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:40

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.39(g) | Date Analyzed: 08/25/2015 12:30

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.4		7.6	0.86
208-96-8	Acenaphthylene	6.9	J	7.6	0.40
120-12-7	Anthracene	23		7.6	0.89
56-55-3	Benzo[a]anthracene	80		7.6	0.72
50-32-8	Benzo[a]pyrene	70		7.6	0.73
205-99-2	Benzo[b]fluoranthene	150		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	48		7.6	0.40
207-08-9	Benzo[k]fluoranthene	49		7.6	0.77
218-01-9	Chrysene	130		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	16		7.6	0.75
206-44-0	Fluoranthene	160		7.6	0.62
86-73-7	Fluorene	9.9		7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	47		7.6	0.40
91-20-3	Naphthalene	14		7.6	0.93
85-01-8	Phenanthrene	95		7.6	0.83
129-00-0	Pyrene	140		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-7-3 | Lab Sample ID: 240-54590-6

Matrix: Solid | Lab File ID: 50825013.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:45

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.66(g) | Date Analyzed: 08/25/2015 13:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	5.2	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	6.3	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	5.6	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	4.1	J	7.9	0.87
129-00-0	Pyrene	6.3	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-8-3 | Lab Sample ID: 240-54590-7

Matrix: Solid | Lab File ID: 50825015.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:50

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30.22(g) | Date Analyzed: 08/25/2015 14:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.91	U	7.7	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.7	0.73
50-32-8	Benzo[a]pyrene	0.74	U	7.7	0.74
205-99-2	Benzo[b]fluoranthene	0.69	U	7.7	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.7	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.7	0.79
218-01-9	Chrysene	1.3	U	7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	0.64	U	7.7	0.64
86-73-7	Fluorene	0.62	U	7.7	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	0.85	U	7.7	0.85
129-00-0	Pyrene	4.1	J	7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	70		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	31		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: D-VB-F1-9-3 | Lab Sample ID: 240-54590-8

Matrix: Solid | Lab File ID: 50825011.D

Analysis Method: 8270D | Date Collected: 08/19/2015 16:55

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 29.65(g) | Date Analyzed: 08/25/2015 12:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.2	J	7.6	0.86
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	10		7.6	0.89
56-55-3	Benzo[a]anthracene	39		7.6	0.72
50-32-8	Benzo[a]pyrene	39		7.6	0.73
205-99-2	Benzo[b]fluoranthene	61		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	20		7.6	0.40
207-08-9	Benzo[k]fluoranthene	21		7.6	0.77
218-01-9	Chrysene	43		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	6.5	J	7.6	0.75
206-44-0	Fluoranthene	68		7.6	0.63
86-73-7	Fluorene	0.60	U	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	20		7.6	0.40
91-20-3	Naphthalene	5.0	J	7.6	0.93
85-01-8	Phenanthrene	38		7.6	0.83
129-00-0	Pyrene	59		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LM MRC Block D Area F1

Report Number: 240-54590-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/21/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F1-2-2 (240-54590-1), D-VS-F1-3-2 (240-54590-2), D-VB-F1-2-3 (240-54590-3), D-VB-F1-3-3 (240-54590-4), D-VB-F1-6-3 (240-54590-5), D-VB-F1-7-3 (240-54590-6), D-VB-F1-8-3 (240-54590-7) and D-VB-F1-9-3 (240-54590-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/22/2015 and analyzed on 08/25/2015.

2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for 240-54590-D-9-B MS and 240-54590-D-9-C MSD.

Sample D-VS-F1-3-2 (240-54590-2)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F1-2-2 (240-54590-1), D-VS-F1-3-2 (240-54590-2), D-VB-F1-2-3 (240-54590-3), D-VB-F1-3-3 (240-54590-4), D-VB-F1-6-3 (240-54590-5), D-VB-F1-7-3 (240-54590-6), D-VB-F1-8-3 (240-54590-7) and D-VB-F1-9-3 (240-54590-8) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/24/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54590-1	D-VS-F1-2-2	Solid	08/19/2015 1600	08/21/2015 0915
240-54590-2	D-VS-F1-3-2	Solid	08/19/2015 1605	08/21/2015 0915
240-54590-3	D-VB-F1-2-3	Solid	08/19/2015 1630	08/21/2015 0915
240-54590-4	D-VB-F1-3-3	Solid	08/19/2015 1635	08/21/2015 0915
240-54590-5	D-VB-F1-6-3	Solid	08/19/2015 1640	08/21/2015 0915
240-54590-6	D-VB-F1-7-3	Solid	08/19/2015 1645	08/21/2015 0915
240-54590-7	D-VB-F1-8-3	Solid	08/19/2015 1650	08/21/2015 0915
240-54590-8	D-VB-F1-9-3	Solid	08/19/2015 1655	08/21/2015 0915

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54590-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

CHAIN OF CUSTODY RECORD

0.8/C1.8

#31

TEST AMERICA, NORTH CANTON OH

PROJECT NO.: 112IC07483

SITE NAME: Lockheed Martin MRC

SAMPLERS (SIGNATURE): Thomas M Dickson / Scott A. Nott

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAHs 8270 D 4oz Glass Jar	VOCs 2oz Glass	GRO 2oz Glass	DRO/PCBs/SVOCs 8oz Glass			REMARKS
BLK D Area F1	19 Aug	1600	X		D-VS-F1-2-2	1	1						3 DAY TAT
		1605	X		D-VS-F1-3-2	1	1						
		1630		X	D-VB-F1-2-3	1	1						
		1635		X	D-VB-F1-3-3	1	1						
		1640		X	D-VB-F1-6-3	1	1						
		1645		X	D-VB-F1-7-3	1	1						
		1650		X	D-VB-F1-8-3	1	1						
		1655		X	D-VB-F1-9-3	1	1						
BLK D AREA F1	20 Aug	1200		X	D-WC-F1-01-3	6		2	2	2			5 DAY TAT ; HIGH CONCS!

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Scott Nott	8/20/15 2:30	[signature]			
[signature]	8/20/15 1610	[signature] 8-21-15 915			

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 94560**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 8-21-15 Opened on 8-21-15

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50821001.D DFTPP Injection Date: 08/21/2015

Instrument ID: A4HP10 DFTPP Injection Time: 10:14

Analysis Batch No.: 194072

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	42.8	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	52.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	24.9	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	7.0	
442	40.0 - 110.0% of mass 198	84.9	
443	15.0 - 24.0% of mass 442	15.8	(18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-194072/2	50821002.D	08/21/2015	10:34
	STD4 240-194072/3	50821003.D	08/21/2015	10:59
	STD3 240-194072/4	50821004.D	08/21/2015	11:23
	STD2 240-194072/5	50821005.D	08/21/2015	11:47
	STD1 240-194072/6	50821006.D	08/21/2015	12:12
	STD9 240-194072/7	50821007.D	08/21/2015	12:36
	STD8 240-194072/8	50821008.D	08/21/2015	13:00
	STD7 240-194072/9	50821009.D	08/21/2015	13:25
	STD6 240-194072/10	50821010.D	08/21/2015	13:49
	ICV 240-194072/11	50821011.D	08/21/2015	14:14

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-194072/6	50821006.D
Level 2	STD2 240-194072/5	50821005.D
Level 3	STD3 240-194072/4	50821004.D
Level 4	STD4 240-194072/3	50821003.D
Level 5	STD5 240-194072/2	50821002.D
Level 6	STD6 240-194072/10	50821010.D
Level 7	STD7 240-194072/9	50821009.D
Level 8	STD8 240-194072/8	50821008.D
Level 9	STD9 240-194072/7	50821007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6040	0.6959 0.6222	0.6974 0.6206	0.6487 0.6338	0.6316	Ave		0.6443				5.4		20.0			
N-Nitrosodimethylamine	0.8858	0.9169 0.8825	0.8873 0.8941	0.8646 0.9006	0.8674	Ave		0.8874				1.9		20.0			
Pyridine	1.6416	1.7695 1.6574	1.7319 1.6727	1.6409 1.6892	1.6981	Ave		1.6877				2.7		20.0			
Benzaldehyde	1.2173	1.4338 1.2049	1.3554 1.1605	1.3259 1.1193	1.2945	Ave		1.2640			0.0100	8.4		20.0			
Phenol	1.9100	2.0162 1.9008	1.9137 1.8915	1.9186 1.9337	1.9183	Ave		1.9253			0.8000	2.0		20.0			
Aniline	2.3399	2.4242 2.3639	2.3326 2.3682	2.3270 2.3995	2.3314	Ave		2.3608				1.5		20.0			
Bis(2-chloroethyl)ether	1.4727	1.5775 1.4766	1.6009 1.4802	1.4918 1.4882	1.5055	Ave		1.5117			0.7000	3.3		20.0			
2-Chlorophenol	1.4645	1.4665 1.4826	1.4577 1.4979	1.4490 1.5063	1.4815	Ave		1.4758			0.8000	1.3		20.0			
n-Decane	1.5489	1.7181 1.5203	1.6565 1.4755	1.6685 1.5068	1.6022	Ave		1.5871				5.5		20.0			
1,3-Dichlorobenzene	1.5498	1.6358 1.5642	1.5499 1.5930	1.5705 1.5943	1.5523	Ave		1.5762				1.9		20.0			
1,4-Dichlorobenzene	1.5828	1.6327 1.5800	1.6173 1.6007	1.5853 1.6491	1.5711	Ave		1.6024				1.7		20.0			
Benzyl alcohol	0.9711	0.9950 0.9787	0.9963 0.9947	1.0130 0.9985	0.9681	Ave		0.9894				1.6		20.0			
1,2-Dichlorobenzene	1.4944	1.5558 1.5130	1.5150 1.5359	1.4751 1.5484	1.4879	Ave		1.5157				1.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.3692	1.3415 1.3711	1.4003 1.3821	1.3883 1.3832	1.3810	Ave		1.3771			0.7000	1.3		20.0			
bis (2-chloroisopropyl) ether	1.5306	1.9688 1.4654	1.7702 1.4298	1.7500 1.4254	1.6690	Ave		1.6262				12.1		20.0			
Indene	2.7092	2.8843 2.6847	2.7958 2.6636	2.7934 2.5987	2.7460	Ave		2.7345				3.3		20.0			
3 & 4 Methylphenol	1.4288	1.4306 1.4178	1.4593 1.4572	1.4234 1.4589	1.4223	Ave		1.4373				1.3		20.0			
N-Nitrosodi-n-propylamine	0.9459	1.0476 0.8942	1.0197 0.9004	0.9759 0.8725	1.0122	Ave		0.9586			0.5000	6.8		20.0			
Acetophenone	2.0480	2.2623 2.0288	2.1364 2.0343	2.1218 2.0325	2.0701	Ave		2.0918			0.0100	3.8		20.0			
Hexachloroethane	0.6432	0.6901 0.6344	0.6594 0.6502	0.6584 0.6544	0.6614	Ave		0.6564			0.3000	2.5		20.0			
Nitrobenzene	0.4200	0.4256 0.4093	0.4146 0.4232	0.4142 0.4033	0.4138	Ave		0.4155			0.2000	1.8		20.0			
Isophorone	0.7708	0.8097 0.7479	0.7652 0.7785	0.7591 0.7610	0.7624	Ave		0.7693			0.4000	2.4		20.0			
2-Nitrophenol	0.1892	0.1369 0.1911	0.1438 0.1953	0.1636 0.1936	0.1713	Ave		0.1731			0.1000	13.4		20.0			
2,4-Dimethylphenol	0.3905	0.4075 0.3857	0.3974 0.3960	0.3836 0.3835	0.3865	Ave		0.3913			0.2000	2.2		20.0			
Benzoic acid	0.2057	+++++ 0.2058	0.0952 0.2282	0.1169 0.2204	0.1650	Lin1	-0.349	0.2256							0.9960		0.9900
Bis(2-chloroethoxy)methane	0.4452	0.4868 0.4389	0.4669 0.4459	0.4527 0.4390	0.4397	Ave		0.4519			0.3000	3.7		20.0			
2,4-Dichlorophenol	0.3108	0.3007 0.3098	0.3077 0.3189	0.3043 0.3173	0.3025	Ave		0.3090			0.2000	2.1		20.0			
1,2,4-Trichlorobenzene	0.3270	0.3363 0.3287	0.3356 0.3362	0.3150 0.3314	0.3116	Ave		0.3277				2.9		20.0			
Naphthalene	1.2430 1.0793	1.1229 1.0809	1.0504 1.1097	1.0192 1.0807	1.0589	Ave		1.0939			0.7000	5.8		20.0			
4-Chloroaniline	0.4617	0.4787 0.4515	0.4416 0.4606	0.4317 0.4748	0.4421	Ave		0.4553			0.0100	3.6		20.0			
2,6-Dichlorophenol	0.3002	0.2988 0.2988	0.2971 0.3140	0.2835 0.3035	0.2873	Ave		0.2979				3.2		20.0			
Hexachlorobutadiene	0.1924	0.1968 0.1895	0.1887 0.1958	0.1851 0.1925	0.1851	Ave		0.1907			0.0100	2.3		20.0			
Caprolactam	0.1201	0.1038 0.1134	0.1082 0.1215	0.1089 0.1187	0.1143	Ave		0.1136			0.0100	5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3309	0.3083 0.3293	0.3165 0.3339	0.3146 0.3288	0.3200	Ave		0.3228			0.2000	2.8		20.0			
2-Methylnaphthalene	0.7986 0.7357	0.7095 0.7197	0.7153 0.7584	0.6847 0.7380	0.7133	Ave		0.7304			0.4000	4.5		20.0			
1-Methylnaphthalene	0.6601 0.6356	0.6239 0.6226	0.6326 0.6559	0.6156 0.6408	0.6069	Ave		0.6327				2.8		20.0			
Hexachlorocyclopentadiene	0.3411	0.2741 0.3684	0.2750 0.3843	0.3116 0.3887	0.3407	Ave		0.3355			0.0500	13.5		20.0			
1,2,4,5-Tetrachlorobenzene	0.5685	0.5815 0.5780	0.5541 0.5867	0.5585 0.5800	0.5621	Ave		0.5712			0.0100	2.1		20.0			
2,4,6-Trichlorophenol	0.3813	0.3359 0.3926	0.3713 0.4021	0.3672 0.3965	0.3680	Ave		0.3769			0.2000	5.7		20.0			
2,4,5-Trichlorophenol	0.4013	0.3740 0.4082	0.3758 0.4215	0.3792 0.4180	0.3900	Ave		0.3960			0.2000	4.8		20.0			
1,1'-Biphenyl	1.5350 1.4413	1.4582 1.4742	1.4494 1.5023	1.4184 1.4738	1.4347	Ave		1.4653			0.0100	2.5		20.0			
2-Chloronaphthalene	1.2853 1.1457	1.1706 1.1855	1.1713 1.2048	1.1607 1.1939	1.1338	Ave		1.1835			0.8000	3.7		20.0			
2-Nitroaniline	0.3705	0.3049 0.3671	0.3130 0.3668	0.3430 0.3590	0.3575	Ave		0.3477			0.0100	7.3		20.0			
Dimethyl phthalate	1.3906	1.4009 1.3847	1.3282 1.4244	1.2964 1.3970	1.3188	Ave		1.3676			0.0100	3.4		20.0			
1,3-Dinitrobenzene	0.2163	0.1204 0.2175	0.1339 0.2227	0.1580 0.2236	0.1854	Lin1	-0.078	0.2233							0.9980		0.9900
2,6-Dinitrotoluene	0.3092	0.2602 0.3164	0.2777 0.3179	0.2889 0.3140	0.2972	Ave		0.2977				7.0		20.0			
Acenaphthylene	1.7413 1.8369	1.7251 1.8643	1.7594 1.8997	1.7458 1.8543	1.7776	Ave		1.8005			0.9000	3.5		20.0			
3-Nitroaniline	0.3152	0.2452 0.3295	0.2839 0.3355	0.2742 0.3318	0.2941	Ave		0.3012			0.0100	10.7		20.0			
2,4-Dinitrophenol	0.1581	+++++ 0.1803	0.0526 0.1913	0.0757 0.1840	0.1144	Lin1	-0.382	0.1901			0.0100				0.9920		0.9900
Acenaphthene	1.2716 1.1389	1.1789 1.1281	1.1664 1.1707	1.1055 1.1263	1.1065	Ave		1.1548			0.9000	4.5		20.0			
4-Nitrophenol	0.2141	0.1581 0.2085	0.1836 0.2185	0.1847 0.2155	0.2089	Ave		0.1990				10.7		20.0			
2,4-Dinitrotoluene	0.4148	0.2989 0.4126	0.3332 0.4250	0.3501 0.4224	0.3828	Ave		0.3800			0.2000	12.5		20.0			
Dibenzofuran	1.8450 1.6594	1.6638 1.7053	1.6451 1.7485	1.6207 1.7170	1.6103	Ave		1.6906			0.8000	4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3369	0.2865 0.3420	0.2906 0.3564	0.2907 0.3529	0.3133	Ave		0.3212			0.0100	9.2		20.0			
Diethyl phthalate	1.3471	1.3648 1.3401	1.3153 1.3587	1.2796 1.3179	1.3096	Ave		1.3291			0.0100	2.2		20.0			
Hexadecane	0.4800	0.5652 0.4617	0.5692 0.4418	0.5230 0.4153	0.5165	Ave		0.4966				11.3		20.0			
4-Chlorophenyl phenyl ether	0.6492	0.6417 0.6691	0.6533 0.6930	0.6379 0.6810	0.6309	Ave		0.6570			0.4000	3.3		20.0			
4-Nitroaniline	0.3223	0.2650 0.3255	0.2897 0.3201	0.3051 0.3114	0.3166	Ave		0.3070			0.0100	6.7		20.0			
Fluorene	1.4846 1.3760	1.3807 1.4094	1.3236 1.4259	1.3004 1.3955	1.3370	Ave		1.3815			0.9000	4.1		20.0			
4,6-Dinitro-2-methylphenol	0.1421	+++++ 0.1527	0.0663 0.1576	0.0896 0.1572	0.1153	Lin1	-0.243	0.1598			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.6184	0.6291 0.6206	0.6130 0.6261	0.5958 0.6215	0.6030	Ave		0.6160			0.0100	1.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8800	0.9411 0.8696	0.8983 0.8783	0.8773 0.8528	0.8970	Ave		0.8865				2.9		20.0			
Azobenzene	0.8803	0.9392 0.8694	0.8982 0.8785	0.8761 0.8529	0.8975	Ave		0.8865				2.9		20.0			
4-Bromophenyl phenyl ether	0.2348	0.2449 0.2354	0.2129 0.2433	0.2084 0.2456	0.2218	Ave		0.2309			0.1000	6.4		20.0			
Hexachlorobenzene	0.2908 0.2406	0.2548 0.2496	0.2465 0.2570	0.2301 0.2587	0.2434	Ave		0.2524			0.1000	6.7		20.0			
Atrazine	0.2408	0.2500 0.2351	0.2405 0.2363	0.2312 0.2288	0.2371	Ave		0.2375			0.0100	2.7		20.0			
Pentachlorophenol	0.1838	0.1445 0.1883	0.1363 0.1976	0.1472 0.1964	0.1615	Ave		0.1694			0.0500	14.7		20.0			
n-Octadecane	0.7939	0.9361 0.7451	0.9188 0.7119	0.8801 0.6645	0.8809	Ave		0.8164				12.5		20.0			
Phenanthrene	1.3172 1.2084	1.2327 1.2073	1.1947 1.2443	1.1062 1.2342	1.1419	Ave		1.2097			0.7000	5.0		20.0			
Anthracene	1.2313 1.2270	1.2109 1.2503	1.1620 1.2862	1.1241 1.2431	1.1622	Ave		1.2108			0.7000	4.3		20.0			
Carbazole	1.0911	1.1726 1.0579	1.0679 1.1001	1.0429 1.1111	1.0718	Ave		1.0894			0.0100	3.7		20.0			
Di-n-butyl phthalate	1.4497	1.4102 1.4571	1.3651 1.4752	1.3491 1.3966	1.4199	Ave		1.4154			0.0100	3.1		20.0			
Fluoranthene	1.4846 1.3814	1.3205 1.4116	1.2842 1.4574	1.2536 1.4331	1.2972	Ave		1.3693			0.6000	6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6922	0.3939 0.7462	0.4426 0.7550	0.4963 0.7182	0.5881	Lin1	-0.540	0.7376							0.9960		0.9900
Pyrene	1.4140 1.2745	1.2505 1.2945	1.2439 1.3496	1.2042 1.3086	1.2117	Ave		1.2835			0.6000	5.3		20.0			
Butyl benzyl phthalate	0.5839	0.5422 0.5762	0.5516 0.5937	0.5413 0.5775	0.5743	Ave		0.5676			0.0100	3.5		20.0			
3,3'-Dichlorobenzidine	0.4589	0.3567 0.4760	0.3731 0.4993	0.3892 0.4971	0.4175	Ave		0.4335			0.0100	13.1		20.0			
Bis(2-ethylhexyl) phthalate	0.8018	0.8396 0.7801	0.7919 0.7802	0.7747 0.7421	0.8053	Ave		0.7895			0.0100	3.6		20.0			
Benzo[a]anthracene	1.2536 1.1534	1.1486 1.1780	1.0978 1.2211	1.1054 1.1978	1.0935	Ave		1.1610			0.8000	4.9		20.0			
Chrysene	1.1362 1.0800	1.0760 1.0718	1.0317 1.1296	0.9841 1.1224	1.0361	Ave		1.0742			0.7000	4.7		20.0			
Di-n-octyl phthalate	1.5438	1.3557 1.5805	1.4060 1.6113	1.4267 1.6067	1.4667	Ave		1.4997			0.0100	6.6		20.0			
Benzo[b]fluoranthene	1.2300 1.2237	1.1302 1.3123	1.1949 1.2827	1.1559 1.3282	1.1202	Ave		1.2198			0.7000	6.3		20.0			
Benzo[k]fluoranthene	1.3705 1.2792	1.3167 1.3046	1.1679 1.4267	1.2287 1.3720	1.2364	Ave		1.3003			0.7000	6.3		20.0			
Benzo[a]pyrene	0.9437 1.1888	1.1006 1.2550	1.0794 1.2900	1.1104 1.3098	1.1003	Ave		1.1531			0.7000	10.2		20.0			
Indeno[1,2,3-cd]pyrene	1.0663 1.2661	1.1836 1.3288	1.1265 1.3762	1.1632 1.3820	1.1716	Ave		1.2294			0.5000	9.2		20.0			
Dibenz(a,h)anthracene	0.8903 1.0564	0.9038 1.1138	0.9045 1.1600	0.9532 1.1871	0.9596	Ave		1.0143			0.4000	11.5		20.0			
Benzo[g,h,i]perylene	1.0477 1.0586	0.9920 1.0912	1.0118 1.1356	0.9344 1.1484	0.9869	Ave		1.0452			0.5000	6.8		20.0			
2-Fluorophenol (Surr)	1.4205	1.4310 1.4327	1.4490 1.4474	1.4312 1.4738	1.4458	Ave		1.4414				1.1		20.0			
Phenol-d5 (Surr)	1.8285	1.8395 1.8284	1.9001 1.8330	1.8377 1.8447	1.8167	Ave		1.8411				1.4		20.0			
Nitrobenzene-d5 (Surr)	0.4774 0.4663	0.4830 0.4550	0.4437 0.4686	0.4598 0.4478	0.4593	Ave		0.4623				2.8		20.0			
2-Fluorobiphenyl (Surr)	1.4015 1.3284	1.3599 1.3356	1.3376 1.3740	1.2962 1.3518	1.2996	Ave		1.3427				2.5		20.0			
2,4,6-Tribromophenol (Surr)	0.1786	0.1462 0.1856	0.1558 0.1953	0.1603 0.1932	0.1649	Ave		0.1725				10.6		20.0			
Terphenyl-d14 (Surr)	1.0197 0.8069	0.8402 0.8325	0.8128 0.8556	0.7775 0.8514	0.7882	Ave		0.8428				8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50825001.D DFTPP Injection Date: 08/25/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:50

Analysis Batch No.: 194668

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.9	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	24.2	
365	Greater than 0.75% of mass 198	2.7	
441	Present, but less than mass 443	0.3	
442	40.0 - 110.0% of mass 198	73.6	
443	15.0 - 24.0% of mass 442	13.9	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-194668/2	50825002.D	08/25/2015	09:15
	MB 240-194401/12-A	50825003.D	08/25/2015	09:39
	LCS 240-194401/13-A	50825004.D	08/25/2015	10:03
	240-54590-D-9-B MS	50825006.D	08/25/2015	10:52
	240-54590-D-9-C MSD	50825007.D	08/25/2015	11:17
D-VS-F1-3-2	240-54590-2	50825008.D	08/25/2015	11:41
D-VS-F1-2-2	240-54590-1	50825009.D	08/25/2015	12:06
D-VB-F1-6-3	240-54590-5	50825010.D	08/25/2015	12:30
D-VB-F1-9-3	240-54590-8	50825011.D	08/25/2015	12:55
D-VB-F1-3-3	240-54590-4	50825012.D	08/25/2015	13:19
D-VB-F1-7-3	240-54590-6	50825013.D	08/25/2015	13:44
D-VB-F1-2-3	240-54590-3	50825014.D	08/25/2015	14:08
D-VB-F1-8-3	240-54590-7	50825015.D	08/25/2015	14:33

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID (1): CCV 240-194668/2 CCVIS Instrument ID (1): A4HP10

GC Column (1): DB-624 ID: 0.18(mm) Date Analyzed (1): 08/25/2015 09:15

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.89	100.0
Phenol-d5 (Surr)	5.77	100.0
Nitrobenzene-d5 (Surr)	6.60	100.0
Naphthalene	7.26	100.0
2-Fluorobiphenyl (Surr)	8.14	100.0
Acenaphthylene	8.62	100.0
Acenaphthene	8.77	100.0
Fluorene	9.20	100.0
2,4,6-Tribromophenol (Surr)	9.41	100.0
Phenanthrene	10.02	100.0
Anthracene	10.07	100.0
Fluoranthene	11.05	100.0
Pyrene	11.27	100.0
Terphenyl-d14 (Surr)	11.38	100.0
Benzo[a]anthracene	12.63	100.0
Chrysene	12.68	100.0
Benzo[b]fluoranthene	14.19	26.20
Benzo[k]fluoranthene	14.23	100.0
Benzo[a]pyrene	14.71	100.0
Indeno[1,2,3-cd]pyrene	16.53	100.0
Dibenz(a,h)anthracene	16.54	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6443	0.6141		9.53	10.0	-4.7	20.0
N-Nitrosodimethylamine	Ave	0.8874	0.8450		9.52	10.0	-4.8	20.0
Pyridine	Ave	1.688	1.581		9.37	10.0	-6.3	20.0
Benzaldehyde	Ave	1.264	1.196	0.0100	18.9	20.0	-5.4	20.0
Phenol	Ave	1.925	1.877	0.8000	9.75	10.0	-2.5	20.0
Aniline	Ave	2.361	2.284		9.68	10.0	-3.2	20.0
Bis(2-chloroethyl)ether	Ave	1.512	1.437	0.7000	9.50	10.0	-5.0	20.0
2-Chlorophenol	Ave	1.476	1.486	0.8000	10.1	10.0	0.7	20.0
n-Decane	Ave	1.587	1.523		9.60	10.0	-4.0	20.0
1,3-Dichlorobenzene	Ave	1.576	1.585		10.1	10.0	0.5	20.0
1,4-Dichlorobenzene	Ave	1.602	1.576		9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	0.9894	0.9474		9.58	10.0	-4.2	20.0
1,2-Dichlorobenzene	Ave	1.516	1.515		9.99	10.0	-0.0	20.0
2-Methylphenol	Ave	1.377	1.364	0.7000	9.91	10.0	-0.9	20.0
bis (2-chloroisopropyl) ether	Ave	1.626	1.487		9.14	10.0	-8.6	20.0
Indene	Ave	2.734	2.718		19.9	20.0	-0.6	20.0
3 & 4 Methylphenol	Ave	1.437	1.389		9.66	10.0	-3.4	20.0
N-Nitrosodi-n-propylamine	Ave	0.9586	0.8810	0.5000	9.19	10.0	-8.1	20.0
Acetophenone	Ave	2.092	1.945	0.0100	9.30	10.0	-7.0	20.0
Hexachloroethane	Ave	0.6564	0.6592	0.3000	10.0	10.0	0.4	20.0
Nitrobenzene	Ave	0.4155	0.4122	0.2000	9.92	10.0	-0.8	20.0
Isophorone	Ave	0.7693	0.7287	0.4000	9.47	10.0	-5.3	20.0
2-Nitrophenol	Ave	0.1731	0.1959	0.1000	11.3	10.0	13.1	20.0
2,4-Dimethylphenol	Ave	0.3913	0.3810	0.2000	9.73	10.0	-2.7	20.0
Benzoic acid	Lin1		0.1693		16.6	20.0	-17.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4519	0.4233	0.3000	9.37	10.0	-6.3	20.0
2,4-Dichlorophenol	Ave	0.3090	0.3185	0.2000	10.3	10.0	3.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3277	0.3335		10.2	10.0	1.8	20.0
Naphthalene	Ave	1.094	1.071	0.7000	9.79	10.0	-2.1	20.0
4-Chloroaniline	Ave	0.4553	0.4571	0.0100	10.0	10.0	0.4	20.0
2,6-Dichlorophenol	Ave	0.2979	0.3013		10.1	10.0	1.1	20.0
Hexachlorobutadiene	Ave	0.1907	0.1952	0.0100	10.2	10.0	2.4	20.0
Caprolactam	Ave	0.1136	0.1131	0.0100	19.9	20.0	-0.5	20.0
4-Chloro-3-methylphenol	Ave	0.3228	0.3176	0.2000	9.84	10.0	-1.6	20.0
2-Methylnaphthalene	Ave	0.7304	0.7100	0.4000	9.72	10.0	-2.8	20.0
1-Methylnaphthalene	Ave	0.6327	0.6169		9.75	10.0	-2.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5712	0.5842	0.0100	10.2	10.0	2.3	20.0
Hexachlorocyclopentadiene	Ave	0.3355	0.3674	0.0500	11.0	10.0	9.5	20.0
2,4,6-Trichlorophenol	Ave	0.3769	0.3914	0.2000	10.4	10.0	3.9	20.0
2,4,5-Trichlorophenol	Ave	0.3960	0.4141	0.2000	10.5	10.0	4.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.465	1.475	0.0100	10.1	10.0	0.7	20.0
2-Chloronaphthalene	Ave	1.184	1.182	0.8000	9.99	10.0	-0.1	20.0
2-Nitroaniline	Ave	0.3477	0.3706	0.0100	10.7	10.0	6.6	20.0
Dimethyl phthalate	Ave	1.368	1.387	0.0100	10.1	10.0	1.4	20.0
1,3-Dinitrobenzene	Lin1		0.2174		10.1	10.0	0.8	20.0
2,6-Dinitrotoluene	Ave	0.2977	0.3123		10.5	10.0	4.9	20.0
Acenaphthylene	Ave	1.800	1.860	0.9000	10.3	10.0	3.3	20.0
3-Nitroaniline	Ave	0.3012	0.3158	0.0100	10.5	10.0	4.8	20.0
2,4-Dinitrophenol	Lin1		0.1803	0.0100	21.0	20.0	4.9	20.0
Acenaphthene	Ave	1.155	1.150	0.9000	9.96	10.0	-0.4	20.0
4-Nitrophenol	Ave	0.1990	0.2050		20.6	20.0	3.0	20.0
2,4-Dinitrotoluene	Ave	0.3800	0.4156	0.2000	10.9	10.0	9.4	20.0
Dibenzofuran	Ave	1.691	1.702	0.8000	10.1	10.0	0.7	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3212	0.3293	0.0100	10.3	10.0	2.5	20.0
Diethyl phthalate	Ave	1.329	1.349	0.0100	10.2	10.0	1.5	20.0
Hexadecane	Ave	0.4966	0.4778		9.62	10.0	-3.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.6570	0.6667	0.4000	10.1	10.0	1.5	20.0
4-Nitroaniline	Ave	0.3070	0.3286	0.0100	10.7	10.0	7.1	20.0
Fluorene	Ave	1.381	1.397	0.9000	10.1	10.0	1.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1560	0.0100	21.0	20.0	5.2	20.0
N-Nitrosodiphenylamine	Ave	0.6160	0.6170	0.0100	20.0	20.0	0.2	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8868	0.8671		9.78	10.0	-2.2	20.0
Azobenzene	Ave	0.8865	0.8671		9.78	10.0	-2.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2309	0.2330	0.1000	10.1	10.0	0.9	20.0
Hexachlorobenzene	Ave	0.2524	0.2500	0.1000	9.91	10.0	-0.9	20.0
Atrazine	Ave	0.2375	0.2428	0.0100	20.5	20.0	2.3	20.0
Pentachlorophenol	Ave	0.1694	0.1763	0.0500	20.8	20.0	4.0	20.0
n-Octadecane	Ave	0.8164	0.7683		9.41	10.0	-5.9	20.0
Phenanthrene	Ave	1.210	1.213	0.7000	10.0	10.0	0.3	20.0
Anthracene	Ave	1.211	1.213	0.7000	10.0	10.0	0.2	20.0
Carbazole	Ave	1.089	1.124	0.0100	10.3	10.0	3.1	20.0
Di-n-butyl phthalate	Ave	1.415	1.457	0.0100	10.3	10.0	2.9	20.0
Fluoranthene	Ave	1.369	1.382	0.6000	10.1	10.0	0.9	20.0
Benzidine	Lin1		0.6939		19.5	20.0	-2.3	20.0
Pyrene	Ave	1.284	1.277	0.6000	9.95	10.0	-0.5	20.0
Butyl benzyl phthalate	Ave	0.5676	0.5925	0.0100	10.4	10.0	4.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4335	0.4728	0.0100	21.8	20.0	9.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7895	0.8206	0.0100	10.4	10.0	3.9	20.0
Benzo[a]anthracene	Ave	1.161	1.167	0.8000	10.1	10.0	0.5	20.0
Chrysene	Ave	1.074	1.077	0.7000	10.0	10.0	0.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Lab Sample ID: CCV 240-194668/2 | Calibration Date: 08/25/2015 09:15

Instrument ID: A4HP10 | Calib Start Date: 08/21/2015 10:34

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 08/21/2015 13:49

Lab File ID: 50825002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.500	1.576	0.0100	10.5	10.0	5.1	20.0
Benzo[b]fluoranthene	Ave	1.220	1.251	0.7000	10.3	10.0	2.6	20.0
Benzo[k]fluoranthene	Ave	1.300	1.271	0.7000	9.77	10.0	-2.3	20.0
Benzo[a]pyrene	Ave	1.153	1.190	0.7000	10.3	10.0	3.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.229	1.300	0.5000	10.6	10.0	5.8	20.0
Dibenz(a,h)anthracene	Ave	1.014	1.084	0.4000	10.7	10.0	6.8	20.0
Benzo[g,h,i]perylene	Ave	1.045	1.069	0.5000	10.2	10.0	2.3	20.0
2-Fluorophenol (Surr)	Ave	1.441	1.442		10.0	10.0	0.0	20.0
Phenol-d5 (Surr)	Ave	1.841	1.780		9.67	10.0	-3.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4623	0.4654		10.1	10.0	0.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.343	1.349		10.0	10.0	0.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1725	0.1871		10.8	10.0	8.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8428	0.8204		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Lab File ID: 50825003.D Lab Sample ID: MB 240-194401/12-A

Matrix: Solid Date Extracted: 08/22/2015 09:42

Instrument ID: A4HP10 Date Analyzed: 08/25/2015 09:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194401/13-A	50825004.D	08/25/2015 10:03
	240-54590-D-9-B MS	50825006.D	08/25/2015 10:52
	240-54590-D-9-C MSD	50825007.D	08/25/2015 11:17
D-VS-F1-3-2	240-54590-2	50825008.D	08/25/2015 11:41
D-VS-F1-2-2	240-54590-1	50825009.D	08/25/2015 12:06
D-VB-F1-6-3	240-54590-5	50825010.D	08/25/2015 12:30
D-VB-F1-9-3	240-54590-8	50825011.D	08/25/2015 12:55
D-VB-F1-3-3	240-54590-4	50825012.D	08/25/2015 13:19
D-VB-F1-7-3	240-54590-6	50825013.D	08/25/2015 13:44
D-VB-F1-2-3	240-54590-3	50825014.D	08/25/2015 14:08
D-VB-F1-8-3	240-54590-7	50825015.D	08/25/2015 14:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194401/12-A

Matrix: Solid | Lab File ID: 50825003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42

Sample wt/vol: 30(g) | Date Analyzed: 08/25/2015 09:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	78		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	21		10-110

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F1-2-2	240-54590-1	73	75	66	73	25	85
D-VS-F1-3-2	240-54590-2	64	66	57	70	33	76
D-VB-F1-2-3	240-54590-3	64	67	60	66	32	83
D-VB-F1-3-3	240-54590-4	72	75	65	70	24	81
D-VB-F1-6-3	240-54590-5	63	65	57	64	18	81
D-VB-F1-7-3	240-54590-6	64	74	64	71	38	85
D-VB-F1-8-3	240-54590-7	67	70	60	67	31	84
D-VB-F1-9-3	240-54590-8	57	60	54	59	15	83
	MB 240-194401/12-A	72	82	74	78	21	90
	LCS 240-194401/13-A	85	84	81	80	43	92
	240-54590-D-9-B MS	0 X	0 X	0 X	0 X	0 X	0 X
	240-54590-D-9-C MSD	0 X	0 X	0 X	0 X	0 X	0 X

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825004.D

Lab ID: LCS 240-194401/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	538	81	38-110	
Acenaphthylene	667	551	83	40-110	
Anthracene	667	572	86	48-110	
Benzo[a]anthracene	667	586	88	50-110	
Benzo[a]pyrene	667	618	93	44-110	
Benzo[b]fluoranthene	667	591	89	43-110	
Benzo[g,h,i]perylene	667	615	92	51-110	
Benzo[k]fluoranthene	667	596	89	38-105	
Chrysene	667	610	91	50-110	
Dibenz(a,h)anthracene	667	627	94	51-110	
Fluoranthene	667	586	88	51-110	
Fluorene	667	546	82	46-110	
Indeno[1,2,3-cd]pyrene	667	624	94	50-110	
Naphthalene	667	544	82	36-110	
Phenanthrene	667	574	86	49-110	
Pyrene	667	576	86	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825006.D

Lab ID: 240-54590-D-9-B MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	836	850000	397000	-54065	22-110	4
Acenaphthylene	836	22000	13100	-1003	24-110	4
Anthracene	836	350000	160000	-23085	20-110	4
Benzo[a]anthracene	836	530000	279000	-30002	10-122	4
Benzo[a]pyrene	836	330000	164000	-19467	10-110	4
Benzo[b]fluoranthene	836	550000	301000	-29876	12-118	4
Benzo[g,h,i]perylene	836	150000	81400	-8805	10-117	4
Benzo[k]fluoranthene	836	210000	98900	-13797	10-121	4
Chrysene	836	410000	193000	-26149	10-125	4
Dibenz(a,h)anthracene	836	44000	25800	-2200	14-113	4
Fluoranthene	836	2500000	1360000	-131482	10-110	4
Fluorene	836	700000	299000	-47726	23-110	4
Indeno[1,2,3-cd]pyrene	836	140000	74000	-8281	10-114	4
Naphthalene	836	950000	262000	-81881	10-111	4
Phenanthrene	836	2700000	1350000	-156543	10-166	4
Pyrene	836	1700000	904000	-96629	10-147	4

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50825007.D

Lab ID: 240-54590-D-9-C MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	852	580000	-31477	38	99	22-110	4
Acenaphthylene	852	15900	-663	19	99	24-110	4
Anthracene	852	230000	-14428	36	99	20-110	4
Benzo[a]anthracene	852	387000	-16786	32	99	10-122	4
Benzo[a]pyrene	852	241000	-10079	38	99	10-110	4
Benzo[b]fluoranthene	852	447000	-12182	39	99	12-118	4
Benzo[g,h,i]perylene	852	123000	-3799	40	99	10-117	4
Benzo[k]fluoranthene	852	149000	-7672	40	99	10-121	4
Chrysene	852	289000	-14391	40	99	10-125	4
Dibenz(a,h)anthracene	852	35600	-1012	32	99	14-113	4
Fluoranthene	852	1820000	-74956	29	99	10-110	4
Fluorene	852	449000	-29238	40	99	23-110	4
Indeno[1,2,3-cd]pyrene	852	112000	-3721	40	99	10-114	4
Naphthalene	852	500000	-52459	62	99	10-111	4
Phenanthrene	852	1960000	-82643	37	99	10-166	4
Pyrene	852	1230000	-56448	31	99	10-147	4

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: STD6 240-194072/10 Date Analyzed: 08/21/2015 13:49

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50821010.D Heated Purge: (Y/N) N

Calibration ID: 30232

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224220	6.13	879627	7.24	521434	8.75
UPPER LIMIT		448440	6.63	1759254	7.74	1042868	9.25
LOWER LIMIT		112110	5.63	439814	6.74	260717	8.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194072/11		229197	6.13	924447	7.24	542195	8.75
CCV 240-194668/2 CCVIS		203356	6.12	780563	7.23	437094	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: STD6 240-194072/10 Date Analyzed: 08/21/2015 13:49

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50821010.D Heated Purge: (Y/N) N

Calibration ID: 30232

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		851220	10.01	954139	12.66	878332	14.80
UPPER LIMIT		1702440	10.51	1908278	13.16	1756664	15.30
LOWER LIMIT		425610	9.51	477070	12.16	439166	14.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-194072/11		880815	10.01	991122	12.66	921925	14.80
CCV 240-194668/2 CCVIS		715015	10.01	789914	12.64	743101	14.79

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: CCV 240-194668/2 Date Analyzed: 08/25/2015 09:15

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50825002.D Heated Purge: (Y/N) N

Calibration ID: 30282

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		203356	6.12	780563	7.23	437094	8.74
UPPER LIMIT		406712	6.62	1561126	7.73	874188	9.24
LOWER LIMIT		101678	5.62	390282	6.73	218547	8.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194401/12-A		173018	6.12	722461	7.23	444284	8.74
LCS 240-194401/13-A		167829	6.12	693880	7.23	421481	8.74
240-54590-D-9-B MS		190043	6.12	758322	7.23	455033	8.74
240-54590-D-9-C MSD		188778	6.12	757431	7.23	456550	8.74
240-54590-2	D-VS-F1-3-2	188150	6.12	759148	7.23	449898	8.74
240-54590-1	D-VS-F1-2-2	184140	6.12	750597	7.23	459267	8.74
240-54590-5	D-VB-F1-6-3	189245	6.12	779612	7.23	468841	8.74
240-54590-8	D-VB-F1-9-3	195306	6.12	765028	7.23	471079	8.74
240-54590-4	D-VB-F1-3-3	186163	6.12	773121	7.23	471672	8.74
240-54590-6	D-VB-F1-7-3	189103	6.12	776189	7.23	457308	8.74
240-54590-3	D-VB-F1-2-3	189778	6.12	773126	7.23	465918	8.74
240-54590-7	D-VB-F1-8-3	179661	6.12	747601	7.23	448238	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Sample No.: CCV 240-194668/2 Date Analyzed: 08/25/2015 09:15

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50825002.D Heated Purge: (Y/N) N

Calibration ID: 30282

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		715015	10.01	789914	12.64	743101	14.79
UPPER LIMIT		1430030	10.51	1579828	13.14	1486202	15.29
LOWER LIMIT		357508	9.51	394957	12.14	371551	14.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194401/12-A		726756	10.00	799333	12.64	716423	14.78
LCS 240-194401/13-A		690162	10.01	780175	12.64	722450	14.79
240-54590-D-9-B MS		756049	10.01	851176	12.64	797023	14.78
240-54590-D-9-C MSD		755191	10.00	843973	12.64	790916	14.78
240-54590-2	D-VS-F1-3-2	775949	10.00	863444	12.64	786273	14.79
240-54590-1	D-VS-F1-2-2	768343	10.00	851369	12.64	765361	14.79
240-54590-5	D-VB-F1-6-3	786890	10.00	883840	12.64	784669	14.79
240-54590-8	D-VB-F1-9-3	778188	10.00	869047	12.64	769820	14.79
240-54590-4	D-VB-F1-3-3	787574	10.00	866163	12.63	752978	14.78
240-54590-6	D-VB-F1-7-3	784835	10.00	841354	12.64	736997	14.78
240-54590-3	D-VB-F1-2-3	771151	10.00	854967	12.64	741689	14.78
240-54590-7	D-VB-F1-8-3	750763	10.00	825999	12.64	713003	14.78

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

SAMPLE ID	**D-VS-F1-3-2**	

SAMPLE CALC **for fluoranthene**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (ng/uL)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION (ug/kg)
775949	4	2671391	4	2	1.3693	2990.80

PERCENT SOLID	SampleWeight (g)
90	29.89

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54590-1
SDG No.:
Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54590-2
Matrix: Solid | Lab File ID: 50825008.D
Analysis Method: 8270D | Date Collected: 08/19/2015 16:05
Extract. Method: 3540C | Date Extracted: 08/22/2015 09:42
Sample wt/vol: 29.89(g) | Date Analyzed: 08/25/2015 11:41
Con. Extract Vol.: 2(mL) | Dilution Factor: 4
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: 10.0 | GPC Cleanup:(Y/N) N
Analysis Batch No.: 194668 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	160		30	3.4
208-96-8	Acenaphthylene	22	J	30	1.6
120-12-7	Anthracene	350		30	3.5
56-55-3	Benzo[a]anthracene	1100		30	2.8
50-32-8	Benzo[a]pyrene	990		30	2.9
205-99-2	Benzo[b]fluoranthene	1400		30	2.6
191-24-2	Benzo[g,h,i]perylene	500		30	1.6
207-08-9	Benzo[k]fluoranthene	560		30	3.0
218-01-9	Chrysene	1200		30	4.9
53-70-3	Dibenz(a,h)anthracene	150		30	2.9
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	120		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	470		30	1.6
91-20-3	Naphthalene	39		30	3.7
85-01-8	Phenanthrene	1400		30	3.3
129-00-0	Pyrene	2400		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		20-110
367-12-4	2-Fluorophenol (Surr)	64		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

TestAmerica Canton
Target Compound Quantitation Report

Sample Calculation

Data File: \\ChromNA\Canton\ChromData\A4HP10\20150825-46633.b\50825008.D
Lims ID: 240-54590-B-2-A Lab Sample ID: 240-54590-2
Client ID: D-VS-F1-3-2
Sample Type: Client
Inject. Date: 25-Aug-2015 11:41:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 4.0000
Sample Info: 240-0046633-008
Misc. Info.: 240-54590-B-2-A
Operator ID: 001710 Instrument ID: A4HP10

Method: \\ChromNA\Canton\ChromData\A4HP10\20150825-46633.b\8270_10.m
Limit Group: MSS 8270D ICAL
Last Update: 25-Aug-2015 11:09:20 Calib Date: 21-Aug-2015 21:08:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4HP10\20150820-46489.b\50821028.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK037

First Level Reviewer: gruberj Date: 25-Aug-2015 13:07:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.115	6.115	0.000	97	188150	4.00	
* 2 Naphthalene-d8	136	7.232	7.232	0.000	100	759148	4.00	
* 3 Acenaphthene-d10	164	8.736	8.736	0.000	91	449898	4.00	
* 4 Phenanthrene-d10	188	9.999	10.005	-0.006	95	775949	4.00	
* 5 Chrysene-d12	240	12.637	12.643	-0.006	97	863444	4.00	
* 6 Perylene-d12	264	14.788	14.788	0.000	98	786273	4.00	
$ 7 2-Fluorophenol	112	4.899	4.887	0.012	92	109262	1.61	
$ 8 Phenol-d5	99	5.763	5.769	-0.006	97	143954	1.66	
$ 9 Nitrobenzene-d5	82	6.591	6.597	-0.006	88	124473	1.42	
$ 10 2-Fluorobiphenyl (Surr)	172	8.142	8.142	0.000	99	264245	1.75	
$ 11 2,4,6-Tribromophenol	330	9.406	9.406	0.000	90	16234	0.8368	
$ 12 Terphenyl-d14	244	11.374	11.380	-0.006	100	343826	1.89	
74 Naphthalene	128	7.249	7.255	-0.006	97	27021	0.1302	
109 Acenaphthylene	152	8.618	8.618	0.000	94	15298	0.0755	
112 Acenaphthene	153	8.765	8.765	0.000	95	68538	0.5277	
126 Fluorene	166	9.200	9.200	0.000	95	61517	0.3959	
149 Phenanthrene	178	10.023	10.023	0.000	96	1092160	4.65	
150 Anthracene	178	10.064	10.070	-0.006	96	274799	1.17	
160 Fluoranthene	202	11.051	11.051	0.000	97	2671391	10.1	
162 Pyrene	202	11.268	11.274	-0.006	97	2255454	8.14	
179 Benzo[a]anthracene	228	12.620	12.625	-0.005	98	953611	3.81	
180 Chrysene	228	12.672	12.678	-0.006	97	933249	4.02	
184 Benzo[b]fluoranthene	252	14.188	14.194	-0.006	97	1143621	4.77	
185 Benzo[k]fluoranthene	252	14.224	14.229	-0.005	97	481510	1.88	M
186 Benzo[a]pyrene	252	14.700	14.705	-0.005	77	757708	3.34	
190 Indeno[1,2,3-cd]pyrene	276	16.515	16.533	-0.018	96	382583	1.58	
191 Dibenz(a,h)anthracene	278	16.527	16.544	-0.017	53	101201	0.5076	
192 Benzo[g,h,i]perylene	276	17.003	17.014	-0.011	97	348389	1.70	

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54590-1 Analy Batch No.: 194072

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/21/2015 10:34 Calibration End Date: 08/21/2015 13:49 Calibration ID: 30232

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3369	0.2865 0.3420	0.2906 0.3564	0.2907 0.3529	0.3133	Ave		0.3212			0.0100	9.2		20.0			
Diethyl phthalate	1.3471	1.3648 1.3401	1.3153 1.3587	1.2796 1.3179	1.3096	Ave		1.3291			0.0100	2.2		20.0			
Hexadecane	0.4800	0.5652 0.4617	0.5692 0.4418	0.5230 0.4153	0.5165	Ave		0.4966				11.3		20.0			
4-Chlorophenyl phenyl ether	0.6492	0.6417 0.6691	0.6533 0.6930	0.6379 0.6810	0.6309	Ave		0.6570			0.4000	3.3		20.0			
4-Nitroaniline	0.3223	0.2650 0.3255	0.2897 0.3201	0.3051 0.3114	0.3166	Ave		0.3070			0.0100	6.7		20.0			
Fluorene	1.4846 1.3760	1.3807 1.4094	1.3236 1.4259	1.3004 1.3955	1.3370	Ave		1.3815			0.9000	4.1		20.0			
4,6-Dinitro-2-methylphenol	0.1421	+++++ 0.1527	0.0663 0.1576	0.0896 0.1572	0.1153	Lin1	-0.243	0.1598			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.6184	0.6291 0.6206	0.6130 0.6261	0.5958 0.6215	0.6030	Ave		0.6160			0.0100	1.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8800	0.9411 0.8696	0.8983 0.8783	0.8773 0.8528	0.8970	Ave		0.8865				2.9		20.0			
Azobenzene	0.8803	0.9392 0.8694	0.8982 0.8785	0.8761 0.8529	0.8975	Ave		0.8865				2.9		20.0			
4-Bromophenyl phenyl ether	0.2348	0.2449 0.2354	0.2129 0.2433	0.2084 0.2456	0.2218	Ave		0.2309			0.1000	6.4		20.0			
Hexachlorobenzene	0.2908 0.2406	0.2548 0.2496	0.2465 0.2570	0.2301 0.2587	0.2434	Ave		0.2524			0.1000	6.7		20.0			
Atrazine	0.2408	0.2500 0.2351	0.2405 0.2363	0.2312 0.2288	0.2371	Ave		0.2375			0.0100	2.7		20.0			
Pentachlorophenol	0.1838	0.1445 0.1883	0.1363 0.1976	0.1472 0.1964	0.1615	Ave		0.1694			0.0500	14.7		20.0			
n-Octadecane	0.7939	0.9361 0.7451	0.9188 0.7119	0.8801 0.6645	0.8809	Ave		0.8164				12.5		20.0			
Phenanthrene	1.3172 1.2084	1.2327 1.2073	1.1947 1.2443	1.1062 1.2342	1.1419	Ave		1.2097			0.7000	5.0		20.0			
Anthracene	1.2313 1.2270	1.2109 1.2503	1.1620 1.2862	1.1241 1.2431	1.1622	Ave		1.2108			0.7000	4.3		20.0			
Carbazole	1.0911	1.1726 1.0579	1.0679 1.1001	1.0429 1.1111	1.0718	Ave		1.0894			0.0100	3.7		20.0			
Di-n-butyl phthalate	1.4497	1.4102 1.4571	1.3651 1.4752	1.3491 1.3966	1.4199	Ave		1.4154			0.0100	3.1		20.0			
Fluoranthene	1.4846 1.3814	1.3205 1.4116	1.2842 1.4574	1.2536 1.4331	1.2972	Ave		1.3693			0.6000	6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

GC/MS SEMI VOA BATCH WORKSHEET

Sample Calculation

Lab Name: TestAmerica Canton Job No.: 240-54590-1

SDG No.:

Batch Number: 194401 Batch Start Date: 08/22/15 10:30 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 08/23/15 02:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	exBENZALDEHYD 00028	exBNASPIKE 00049	exBNASURR W 00026	
240-54590-B-1	D-VS-F1-2-2	3540C, 8270D	T	29.78 g	2 mL			1 mL	
240-54590-B-2	D-VS-F1-3-2	3540C, 8270D	T	29.89 g	2 mL			1 mL	
240-54590-B-3	D-VB-F1-2-3	3540C, 8270D	T	29.94 g	2 mL			1 mL	
240-54590-B-4	D-VB-F1-3-3	3540C, 8270D	T	30.17 g	2 mL			1 mL	
240-54590-B-5	D-VB-F1-6-3	3540C, 8270D	T	30.39 g	2 mL			1 mL	
240-54590-B-6	D-VB-F1-7-3	3540C, 8270D	T	29.66 g	2 mL			1 mL	
240-54590-B-7	D-VB-F1-8-3	3540C, 8270D	T	30.22 g	2 mL			1 mL	
240-54590-B-8	D-VB-F1-9-3	3540C, 8270D	T	29.65 g	2 mL			1 mL	
240-54590-D-9 MS		3540C, 8270D	T	30.33 g	2 mL	1 mL	1 mL	1 mL	
240-54590-D-9 MSD		3540C, 8270D	T	29.75 g	2 mL	1 mL	1 mL	1 mL	
MB 240-194401/12		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-194401/13		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	1339912
Na2SO4 Lot Number	2104025
Prep Solvent Lot #	2137024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 13, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54086-1

SAMPLES: 10 / Soil / PAHs

D-DUP01-080615	D-VB-A-2-2	D-VB-B-1-2
D-VB-B-2-2	D-VB-B-3-2	D-VS-A-2-1
D-VS-B-1-1	D-VS-B-2-1	D-VS-B-3-1
D-VS-B-4-1		

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54086-1, consists of ten (10) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). One field duplicate pair is included in this SDG: D-VB-B-3-2 (original) / D-DUP01-080615 (duplicate).

The samples were collected by Tetra Tech on August 6, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- In the field duplicate pair samples (D-VB-B-3-2 / D-DUP01-080615), the relative percent difference (RPD) was greater than the quality control limit of 50% for benzo(b)fluoranthene. Detected results for benzo(b)fluoranthene were qualified as estimated (J) in the field duplicate pair samples.

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

The laboratory sample receipt form and case narrative indicate that the jar for D-VS-B-3-1 was broken and the sample was transferred to a new jar.

No matrix spike (MS)/matrix spike duplicate (MSD) analysis was performed for this SDG. No action was taken.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Some detected results for one analyte were qualified for field duplicate imprecision. Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP01-080615			D-VB-A-2-2			D-VB-B-1-2			D-VB-B-2-2		
SDG: 240-54086-1	LAB_ID	240-54086-8			240-54086-10			240-54086-5			240-54086-6		
FRACTION: PAH	SAMP_DATE	8/6/2015			8/6/2015			8/6/2015			8/6/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.1			89.1			88.2			84.6		
	DUP_OF	D-VB-B-3-2											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		12			18			4.8	J	P	5.8	J	P
ACENAPHTHYLENE		0.39	U		0.4	U		0.4	U		0.41	U	
ANTHRACENE		11			18			0.89	U		4.7	J	P
BENZO(A)ANTHRACENE		16			74			4.6	J	P	11		
BENZO(A)PYRENE		13			80			4	J	P	9.4		
BENZO(B)FLUORANTHENE		19	J	G	88			5.9	J	P	11		
BENZO(G,H,I)PERYLENE		10			58			0.4	U		9.3		
BENZO(K)FLUORANTHENE		8.4			68			0.78	U		6.9	J	P
CHRYSENE		21			81			8.9			15		
DIBENZO(A,H)ANTHRACENE		0.73	U		13			0.75	U		0.77	U	
FLUORANTHENE		43			120			14			27		
FLUORENE		12			16			4.4	J	P	7.1	J	P
INDENO(1,2,3-CD)PYRENE		11			50			0.4	U		6.1	J	P
NAPHTHALENE		14			140			9.8			12		
PHENANTHRENE		57			71			15			23		
PYRENE		36			110			10			22		

PROJ_NO: 07483	NSAMPLE	D-VB-B-3-2			D-VS-A-2-1			D-VS-B-1-1			D-VS-B-2-1		
SDG: 240-54086-1	LAB_ID	240-54086-7			240-54086-9			240-54086-1			240-54086-2		
FRACTION: PAH	SAMP_DATE	8/6/2015			8/6/2015			8/6/2015			8/6/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.7			84.0			84.7			84.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		15			0.9	U		9.8			0.89	U	
ACENAPHTHYLENE		0.4	U		0.42	U		0.41	U		0.41	U	
ANTHRACENE		12			0.93	U		0.92	U		4.5	J	P
BENZO(A)ANTHRACENE		26			0.75	U		9.6			17		
BENZO(A)PYRENE		25			0.76	U		10			14		
BENZO(B)FLUORANTHENE		36	J	G	4.4	J	P	13			22		
BENZO(G,H,I)PERYLENE		21			0.42	U		8.8			9.9		
BENZO(K)FLUORANTHENE		11			0.81	U		8.7			9.2		
CHRYSENE		34			1.3	U		17			24		
DIBENZO(A,H)ANTHRACENE		0.76	U		0.78	U		0.78	U		0.77	U	
FLUORANTHENE		55			4.7	J	P	39			37		
FLUORENE		15			0.63	U		29			4.5	J	P
INDENO(1,2,3-CD)PYRENE		16			0.42	U		5.4	J	P	7.8		
NAPHTHALENE		17			0.97	U		8.2			12		
PHENANTHRENE		54			0.87	U		51			21		
PYRENE		46			7.3	J	P	34			31		

PROJ_NO: 07483	NSAMPLE	D-VS-B-3-1			D-VS-B-4-1		
SDG: 240-54086-1	LAB_ID	240-54086-3			240-54086-4		
FRACTION: PAH	SAMP_DATE	8/6/2015			8/6/2015		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	85.7			85.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.89	U		7	J	P
ACENAPHTHYLENE		0.41	U		0.41	U	
ANTHRACENE		0.91	U		0.91	U	
BENZO(A)ANTHRACENE		0.73	U		4.3	J	P
BENZO(A)PYRENE		0.75	U		0.75	U	
BENZO(B)FLUORANTHENE		0.69	U		4.2	J	P
BENZO(G,H,I)PERYLENE		0.41	U		0.41	U	
BENZO(K)FLUORANTHENE		0.79	U		0.79	U	
CHRYSENE		1.3	U		4.4	J	P
DIBENZO(A,H)ANTHRACENE		0.77	U		0.77	U	
FLUORANTHENE		6.3	J	P	11		
FLUORENE		0.62	U		18		
INDENO(1,2,3-CD)PYRENE		0.41	U		0.41	U	
NAPHTHALENE		0.96	U		4.6	J	P
PHENANTHRENE		5.7	J	P	25		
PYRENE		5.7	J	P	8.6		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-DUP01-080615 | Lab Sample ID: 240-54086-8

Matrix: Solid | Lab File ID: 50812014.D

Analysis Method: 8270D | Date Collected: 08/06/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.92(g) | Date Analyzed: 08/12/2015 12:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	12		7.4	0.85
208-96-8	Acenaphthylene	0.39	U	7.4	0.39
120-12-7	Anthracene	11		7.4	0.87
56-55-3	Benzo[a]anthracene	16		7.4	0.70
50-32-8	Benzo[a]pyrene	13		7.4	0.71
205-99-2	Benzo[b]fluoranthene	19		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	10		7.4	0.39
207-08-9	Benzo[k]fluoranthene	8.4		7.4	0.76
218-01-9	Chrysene	21		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	0.73	U	7.4	0.73
206-44-0	Fluoranthene	43		7.4	0.61
86-73-7	Fluorene	12		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	11		7.4	0.39
91-20-3	Naphthalene	14		7.4	0.91
85-01-8	Phenanthrene	57		7.4	0.81
129-00-0	Pyrene	36		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	57		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-A-2-2 | Lab Sample ID: 240-54086-10

Matrix: Solid | Lab File ID: 50812016.D

Analysis Method: 8270D | Date Collected: 08/06/2015 14:05

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.78(g) | Date Analyzed: 08/12/2015 13:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	18		7.5	0.86
208-96-8	Acenaphthylene	0.40	U	7.5	0.40
120-12-7	Anthracene	18		7.5	0.88
56-55-3	Benzo[a]anthracene	74		7.5	0.71
50-32-8	Benzo[a]pyrene	80		7.5	0.72
205-99-2	Benzo[b]fluoranthene	88		7.5	0.67
191-24-2	Benzo[g,h,i]perylene	58		7.5	0.40
207-08-9	Benzo[k]fluoranthene	68		7.5	0.77
218-01-9	Chrysene	81		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	13		7.5	0.75
206-44-0	Fluoranthene	120		7.5	0.62
86-73-7	Fluorene	16		7.5	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	50		7.5	0.40
91-20-3	Naphthalene	140		7.5	0.93
85-01-8	Phenanthrene	71		7.5	0.82
129-00-0	Pyrene	110		7.5	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		36-110
4165-62-2	Phenol-d5 (Surr)	63		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	58		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	48		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-1-2 | Lab Sample ID: 240-54086-5

Matrix: Solid | Lab File ID: 50812011.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.80(g) | Date Analyzed: 08/12/2015 11:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.8	J	7.6	0.87
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	0.89	U	7.6	0.89
56-55-3	Benzo[a]anthracene	4.6	J	7.6	0.72
50-32-8	Benzo[a]pyrene	4.0	J	7.6	0.73
205-99-2	Benzo[b]fluoranthene	5.9	J	7.6	0.67
191-24-2	Benzo[g,h,i]perylene	0.40	U	7.6	0.40
207-08-9	Benzo[k]fluoranthene	0.78	U	7.6	0.78
218-01-9	Chrysene	8.9		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	14		7.6	0.63
86-73-7	Fluorene	4.4	J	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	0.40	U	7.6	0.40
91-20-3	Naphthalene	9.8		7.6	0.94
85-01-8	Phenanthrene	15		7.6	0.83
129-00-0	Pyrene	10		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	59		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-2-2 | Lab Sample ID: 240-54086-6

Matrix: Solid | Lab File ID: 50812012.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:20

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.24(g) | Date Analyzed: 08/12/2015 11:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.8	J	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.7	J	7.8	0.91
56-55-3	Benzo[a]anthracene	11		7.8	0.74
50-32-8	Benzo[a]pyrene	9.4		7.8	0.75
205-99-2	Benzo[b]fluoranthene	11		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	9.3		7.8	0.41
207-08-9	Benzo[k]fluoranthene	6.9	J	7.8	0.80
218-01-9	Chrysene	15		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	27		7.8	0.64
86-73-7	Fluorene	7.1	J	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	6.1	J	7.8	0.41
91-20-3	Naphthalene	12		7.8	0.96
85-01-8	Phenanthrene	23		7.8	0.86
129-00-0	Pyrene	22		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	61		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VB-B-3-2 | Lab Sample ID: 240-54086-7

Matrix: Solid | Lab File ID: 50812013.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:25

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 29.73(g) | Date Analyzed: 08/12/2015 12:23

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.7	0.87
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	12		7.7	0.90
56-55-3	Benzo[a]anthracene	26		7.7	0.72
50-32-8	Benzo[a]pyrene	25		7.7	0.74
205-99-2	Benzo[b]fluoranthene	36		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	21		7.7	0.40
207-08-9	Benzo[k]fluoranthene	11		7.7	0.78
218-01-9	Chrysene	34		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.76	U	7.7	0.76
206-44-0	Fluoranthene	55		7.7	0.63
86-73-7	Fluorene	15		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	16		7.7	0.40
91-20-3	Naphthalene	17		7.7	0.94
85-01-8	Phenanthrene	54		7.7	0.84
129-00-0	Pyrene	46		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	66		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	65		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-A-2-1 | Lab Sample ID: 240-54086-9

Matrix: Solid | Lab File ID: 50812015.D

Analysis Method: 8270D | Date Collected: 08/06/2015 14:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.10(g) | Date Analyzed: 08/12/2015 13:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	4.4	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	4.7	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	7.3	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-1-1 | Lab Sample ID: 240-54086-1

Matrix: Solid | Lab File ID: 50812007.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.16(g) | Date Analyzed: 08/12/2015 09:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.8		7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.92	U	7.8	0.92
56-55-3	Benzo[a]anthracene	9.6		7.8	0.74
50-32-8	Benzo[a]pyrene	10		7.8	0.75
205-99-2	Benzo[b]fluoranthene	13		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	8.8		7.8	0.41
207-08-9	Benzo[k]fluoranthene	8.7		7.8	0.80
218-01-9	Chrysene	17		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.8	0.78
206-44-0	Fluoranthene	39		7.8	0.65
86-73-7	Fluorene	29		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	5.4	J	7.8	0.41
91-20-3	Naphthalene	8.2		7.8	0.96
85-01-8	Phenanthrene	51		7.8	0.86
129-00-0	Pyrene	34		7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		36-110
4165-62-2	Phenol-d5 (Surr)	63		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	50		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-2-1 | Lab Sample ID: 240-54086-2

Matrix: Solid | Lab File ID: 50812008.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:05

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.38(g) | Date Analyzed: 08/12/2015 10:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	4.5	J	7.8	0.91
56-55-3	Benzo[a]anthracene	17		7.8	0.73
50-32-8	Benzo[a]pyrene	14		7.8	0.75
205-99-2	Benzo[b]fluoranthene	22		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	9.9		7.8	0.41
207-08-9	Benzo[k]fluoranthene	9.2		7.8	0.79
218-01-9	Chrysene	24		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	37		7.8	0.64
86-73-7	Fluorene	4.5	J	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	7.8		7.8	0.41
91-20-3	Naphthalene	12		7.8	0.96
85-01-8	Phenanthrene	21		7.8	0.85
129-00-0	Pyrene	31		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	56		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-3-1 | Lab Sample ID: 240-54086-3

Matrix: Solid | Lab File ID: 50812009.D

Analysis Method: 8270D | Date Collected: 08/06/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.04(g) | Date Analyzed: 08/12/2015 10:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	0.69	U	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	6.3	J	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	5.7	J	7.8	0.85
129-00-0	Pyrene	5.7	J	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	73		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	71		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	65		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: D-VS-B-4-1 | Lab Sample ID: 240-54086-4

Matrix: Solid | Lab File ID: 50812010.D

Analysis Method: 8270D | Date Collected: 08/06/2015 10:10

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30.12(g) | Date Analyzed: 08/12/2015 11:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.0	J	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	4.3	J	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	4.2	J	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	4.4	J	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	11		7.8	0.64
86-73-7	Fluorene	18		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	4.6	J	7.8	0.95
85-01-8	Phenanthrene	25		7.8	0.85
129-00-0	Pyrene	8.6		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	65		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		10-110

APPENDIX C

SUPPORT DOCUMENTATION

3.2 | C4.2

Chain of Custody Record

#26 016175

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: JOSH MILLS	Date: 8/6/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412-559-8133	Lab Contact: JOHN. MCFADDEN	Carrier: FEDEX	1 of 1 COCs
Address: 20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — 3 DAY			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
P O # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N) PAH (8270D)	Sample Specific Notes:
D-VS-B-1-1	8/6/15	1000	C	SOIL	1		X	
D-VS-B-2-1		1005					X	
D-VS-B-3-1		1200					X	
D-VS-B-4-1		1010					X	
D-VB-B-1-2		1015					X	
D-VB-B-2-2		1020					X	
D-VB-B-3-2		1025					X	
D-DUP01-080615	8/6/15	—					X	
D-VS-A-2-1		1400					X	
D-VB-A-2-2		1405					X	
							8/6/15	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES FOR BLOCK D AREAS A AND B

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	8/6/15 1540		TestAmerica	8/6/15 1540
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TestAmerica	8/6/15 1620		TA	8/7/15 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 54086
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Alex Cole

Cooler Received on 8/7/13 Opened on 8/7/13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 4.2 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~ ☐ See Multiple Cooler Form
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

D-US-B-3-1 jar broken & rejarred, possible glass present.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54086-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/7/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2º C.

Sample D-VS-B-3-1 (240-54086-3) was received in a cracked / broken jar. The sample was transferred to a new container.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-B-1-1 (240-54086-1), D-VS-B-2-1 (240-54086-2), D-VS-B-3-1 (240-54086-3), D-VS-B-4-1 (240-54086-4), D-VB-B-1-2 (240-54086-5), D-VB-B-2-2 (240-54086-6), D-VB-B-3-2 (240-54086-7), D-DUP01-080615 (240-54086-8), D-VS-A-2-1 (240-54086-9) and D-VB-A-2-2 (240-54086-10) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/10/2015 and analyzed on 08/12/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-B-1-1 (240-54086-1), D-VS-B-2-1 (240-54086-2), D-VS-B-3-1 (240-54086-3), D-VS-B-4-1 (240-54086-4), D-VB-B-1-2 (240-54086-5), D-VB-B-2-2 (240-54086-6), D-VB-B-3-2 (240-54086-7), D-DUP01-080615 (240-54086-8), D-VS-A-2-1 (240-54086-9) and D-VB-A-2-2 (240-54086-10) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/07/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54086-1	D-VS-B-1-1	Solid	08/06/2015 1000	08/07/2015 0930
240-54086-2	D-VS-B-2-1	Solid	08/06/2015 1005	08/07/2015 0930
240-54086-3	D-VS-B-3-1	Solid	08/06/2015 1200	08/07/2015 0930
240-54086-4	D-VS-B-4-1	Solid	08/06/2015 1010	08/07/2015 0930
240-54086-5	D-VB-B-1-2	Solid	08/06/2015 1015	08/07/2015 0930
240-54086-6	D-VB-B-2-2	Solid	08/06/2015 1020	08/07/2015 0930
240-54086-7	D-VB-B-3-2	Solid	08/06/2015 1025	08/07/2015 0930
240-54086-8	D-DUP01-080615	Solid	08/06/2015 0000	08/07/2015 0930
240-54086-9	D-VS-A-2-1	Solid	08/06/2015 1400	08/07/2015 0930
240-54086-10	D-VB-A-2-2	Solid	08/06/2015 1405	08/07/2015 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54086-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FIELD DUPLICATE PRECISION

ANALYTE	D-VB-B-3-2	QUAL	D-DUP01-080615	QUAL	RPD	DIFFERENCE	RL
ACENAPHTHENE	15		12		22.22	3	7.7
ACENAPHTHYLENE	0.4	U	0.39	U	2.53	0.01	7.7
ANTHRACENE	12		11		8.70	1	7.7
BENZO(A)ANTHRACENE	26		16		47.62	10	7.7
BENZO(A)PYRENE	25		13		63.16	12	7.7
BENZO(B)FLUORANTHENE	36		19		61.82	17	7.7
BENZO(G,H,I)PERYLENE	21		10		70.97	11	7.7
BENZO(K)FLUORANTHENE	11		8.4		26.80	2.6	7.7
CHRYSENE	34		21		47.27	13	7.7
DIBENZO(A,H)ANTHRACENE	0.76	U	0.73	U	4.03	0.03	7.7
FLUORANTHENE	55		43		24.49	12	7.7
FLUORENE	15		12		22.22	3	7.7
INDENO(1,2,3-CD)PYRENE	16		11		37.04	5	7.7
NAPHTHALENE	17		14		19.35	3	7.7
PHENANTHRENE	54		57		5.41	3	7.7
PYRENE	46		36		24.39	10	7.7

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54086-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50812001.D DFTPP Injection Date: 08/12/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:21

Analysis Batch No.: 192864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.4	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.7	
70	Less than 2.0% of mass 69	0.3	(0.3)1
127	25.0 - 75.0% of mass 198	59.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	53.8	
443	15.0 - 24.0% of mass 442	10.2	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-192864/2	50812002.D	08/12/2015	07:43
	CCV 240-192864/3	50812003.D	08/12/2015	08:09
	MB 240-192506/23-A	50812005.D	08/12/2015	08:59
	LCS 240-192506/24-A	50812006.D	08/12/2015	09:24
D-VS-B-1-1	240-54086-1	50812007.D	08/12/2015	09:50
D-VS-B-2-1	240-54086-2	50812008.D	08/12/2015	10:15
D-VS-B-3-1	240-54086-3	50812009.D	08/12/2015	10:41
D-VS-B-4-1	240-54086-4	50812010.D	08/12/2015	11:06
D-VB-B-1-2	240-54086-5	50812011.D	08/12/2015	11:32
D-VB-B-2-2	240-54086-6	50812012.D	08/12/2015	11:57
D-VB-B-3-2	240-54086-7	50812013.D	08/12/2015	12:23
D-DUP01-080615	240-54086-8	50812014.D	08/12/2015	12:48
D-VS-A-2-1	240-54086-9	50812015.D	08/12/2015	13:14
D-VB-A-2-2	240-54086-10	50812016.D	08/12/2015	13:39

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID (1): CCV 240-192864/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/12/2015 07:43

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	5.11	100.0
Phenol-d5 (Surr)	5.97	100.0
Nitrobenzene-d5 (Surr)	6.81	100.0
Naphthalene	7.47	100.0
2-Fluorobiphenyl (Surr)	8.35	100.0
Acenaphthylene	8.83	100.0
Acenaphthene	8.98	100.0
Fluorene	9.42	100.0
2,4,6-Tribromophenol (Surr)	9.62	100.0
Phenanthrene	10.24	100.0
Anthracene	10.28	100.0
Fluoranthene	11.25	100.0
Pyrene	11.46	100.0
Terphenyl-d14 (Surr)	11.54	100.0
Benzo[a]anthracene	12.49	100.0
Chrysene	12.52	100.0
Benzo[b]fluoranthene	13.69	31.30
Benzo[k]fluoranthene	13.73	100.0
Benzo[a]pyrene	14.16	100.0
Indeno[1,2,3-cd]pyrene	16.13	100.0
Dibenz(a,h)anthracene	16.13	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 | Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9305		9.44	10.0	-5.6	20.0
N-Nitrosodimethylamine	Ave	1.693	1.729		10.2	10.0	2.1	20.0
Pyridine	Ave	2.930	2.862		9.77	10.0	-2.3	20.0
Benzaldehyde	Ave	2.328	2.227	0.0100	19.1	20.0	-4.3	20.0
Phenol	Ave	2.775	2.607	0.8000	9.39	10.0	-6.1	20.0
Aniline	Ave	3.583	3.422		9.55	10.0	-4.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.385	0.7000	9.52	10.0	-4.8	20.0
2-Chlorophenol	Ave	1.523	1.485	0.8000	9.75	10.0	-2.5	20.0
n-Decane	Ave	1.999	1.961		9.81	10.0	-1.9	20.0
1,3-Dichlorobenzene	Ave	1.630	1.558		9.56	10.0	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.666	1.595		9.58	10.0	-4.2	20.0
Benzyl alcohol	Ave	1.232	1.135		9.21	10.0	-7.9	20.0
1,2-Dichlorobenzene	Ave	1.580	1.485		9.40	10.0	-6.0	20.0
2-Methylphenol	Ave	1.706	1.607	0.7000	9.42	10.0	-5.8	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.769		9.38	10.0	-6.2	20.0
Indene	Ave	3.185	2.978		18.7	20.0	-6.5	20.0
3 & 4 Methylphenol	Ave	1.799	1.694		9.42	10.0	-5.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.878	0.5000	9.49	10.0	-5.1	20.0
Acetophenone	Ave	2.817	2.715	0.0100	9.64	10.0	-3.6	20.0
Hexachloroethane	Ave	0.8166	0.7780	0.3000	9.53	10.0	-4.7	20.0
Nitrobenzene	Ave	0.7749	0.7991	0.2000	10.3	10.0	3.1	20.0
Isophorone	Ave	1.226	1.213	0.4000	9.90	10.0	-1.0	20.0
2-Nitrophenol	Ave	0.1796	0.1924	0.1000	10.7	10.0	7.2	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4925	0.2000	10.1	10.0	0.7	20.0
Benzoic acid	Lin1		0.1998		17.8	20.0	-10.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6919	0.3000	10.2	10.0	2.3	20.0
2,4-Dichlorophenol	Ave	0.3062	0.3068	0.2000	10.0	10.0	0.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3396		10.4	10.0	4.4	20.0
Naphthalene	Ave	1.144	1.104	0.7000	9.65	10.0	-3.5	20.0
4-Chloroaniline	Ave	0.4932	0.4897	0.0100	9.93	10.0	-0.7	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2990		10.1	10.0	0.8	20.0
Hexachlorobutadiene	Ave	0.2017	0.2028	0.0100	10.1	10.0	0.5	20.0
Caprolactam	Ave	0.1384	0.1399	0.0100	20.2	20.0	1.0	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4141	0.2000	9.90	10.0	-1.0	20.0
2-Methylnaphthalene	Ave	0.7006	0.6969	0.4000	9.95	10.0	-0.5	20.0
1-Methylnaphthalene	Ave	0.6168	0.5974		9.69	10.0	-3.1	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3792	0.0500	11.4	10.0	14.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5720	0.0100	10.1	10.0	0.5	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3955	0.2000	10.6	10.0	5.6	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4156	0.2000	10.5	10.0	5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.453	0.0100	9.80	10.0	-2.0	20.0
2-Chloronaphthalene	Ave	1.171	1.160	0.8000	9.91	10.0	-0.9	20.0
2-Nitroaniline	Ave	0.6109	0.6385	0.0100	10.5	10.0	4.5	20.0
Dimethyl phthalate	Ave	1.267	1.324	0.0100	10.5	10.0	4.5	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2202		11.2	10.0	11.7	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.3006		10.7	10.0	7.2	20.0
Acenaphthylene	Ave	1.869	1.856	0.9000	9.93	10.0	-0.7	20.0
3-Nitroaniline	Ave	0.3056	0.3058	0.0100	10.0	10.0	0.0	20.0
2,4-Dinitrophenol	Lin1		0.1688	0.0100	23.1	20.0	15.3	20.0
Acenaphthene	Ave	1.201	1.161	0.9000	9.67	10.0	-3.3	20.0
4-Nitrophenol	Ave	0.2548	0.2897		22.7	20.0	13.7	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3952	0.2000	10.6	10.0	5.7	20.0
Dibenzofuran	Ave	1.648	1.632	0.8000	9.90	10.0	-1.0	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3253	0.0100	10.3	10.0	3.4	20.0
Diethyl phthalate	Ave	1.245	1.230	0.0100	9.88	10.0	-1.2	20.0
Hexadecane	Ave	1.016	1.031		10.1	10.0	1.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.6234	0.4000	10.2	10.0	1.6	20.0
4-Nitroaniline	Ave	0.2967	0.3250	0.0100	11.0	10.0	9.5	20.0
Fluorene	Ave	1.379	1.336	0.9000	9.69	10.0	-3.1	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1514	0.0100	24.5	20.0	22.5*	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.6029	0.0100	21.2	20.0	6.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.790		11.3	10.0	13.4	20.0
Azobenzene	Ave	1.580	1.790		11.3	10.0	13.3	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2457	0.1000	11.5	10.0	15.0	20.0
Hexachlorobenzene	Ave	0.2114	0.2278	0.1000	10.8	10.0	7.8	20.0
Atrazine	Ave	0.2132	0.2375	0.0100	22.3	20.0	11.4	20.0
n-Octadecane	Ave	0.6421	0.7013		10.9	10.0	9.2	20.0
Pentachlorophenol	Ave	0.1444	0.1555	0.0500	21.5	20.0	7.7	20.0
Phenanthrene	Ave	1.268	1.225	0.7000	9.66	10.0	-3.4	20.0
Anthracene	Ave	1.261	1.236	0.7000	9.80	10.0	-2.0	20.0
Carbazole	Ave	1.050	1.150	0.0100	11.0	10.0	9.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.465	0.0100	11.7	10.0	17.2	20.0
Fluoranthene	Ave	1.280	1.418	0.6000	11.1	10.0	10.7	20.0
Benzidine	Lin1		0.6947		22.5	20.0	12.3	20.0
Pyrene	Ave	1.153	1.196	0.6000	10.4	10.0	3.7	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5540	0.0100	10.3	10.0	3.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7681	0.0100	10.5	10.0	5.0	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3621	0.0100	20.1	20.0	0.7	20.0
Benzo[a]anthracene	Ave	1.234	1.201	0.8000	9.73	10.0	-2.7	20.0
Chrysene	Ave	1.158	1.113	0.7000	9.61	10.0	-3.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab Sample ID: CCV 240-192864/2 Calibration Date: 08/12/2015 07:43

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50812002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.450	0.0100	10.2	10.0	2.1	20.0
Benzo[b]fluoranthene	Ave	1.185	1.167	0.7000	9.85	10.0	-1.5	20.0
Benzo[k]fluoranthene	Ave	1.198	1.257	0.7000	10.5	10.0	4.9	20.0
Benzo[a]pyrene	Ave	1.128	1.143	0.7000	10.1	10.0	1.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.215	0.5000	10.4	10.0	3.6	20.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9809	0.4000	10.7	10.0	6.7	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.017	0.5000	10.4	10.0	4.4	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.716		9.81	10.0	-1.9	20.0
Phenol-d5 (Surr)	Ave	2.475	2.398		9.69	10.0	-3.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7861		10.1	10.0	1.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1414		10.9	10.0	8.7	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7760		10.5	10.0	5.4	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Lab File ID: 50812005.D Lab Sample ID: MB 240-192506/23-A

Matrix: Solid Date Extracted: 08/10/2015 08:05

Instrument ID: A4HP9 Date Analyzed: 08/12/2015 08:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-192506/24-A	50812006.D	08/12/2015 09:24
D-VS-B-1-1	240-54086-1	50812007.D	08/12/2015 09:50
D-VS-B-2-1	240-54086-2	50812008.D	08/12/2015 10:15
D-VS-B-3-1	240-54086-3	50812009.D	08/12/2015 10:41
D-VS-B-4-1	240-54086-4	50812010.D	08/12/2015 11:06
D-VB-B-1-2	240-54086-5	50812011.D	08/12/2015 11:32
D-VB-B-2-2	240-54086-6	50812012.D	08/12/2015 11:57
D-VB-B-3-2	240-54086-7	50812013.D	08/12/2015 12:23
D-DUP01-080615	240-54086-8	50812014.D	08/12/2015 12:48
D-VS-A-2-1	240-54086-9	50812015.D	08/12/2015 13:14
D-VB-A-2-2	240-54086-10	50812016.D	08/12/2015 13:39

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54086-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-192506/23-A

Matrix: Solid | Lab File ID: 50812005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/10/2015 08:05

Sample wt/vol: 30(g) | Date Analyzed: 08/12/2015 08:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 192864 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	67		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50812006.D

Lab ID: LCS 240-192506/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	466	70	38-110	
Acenaphthylene	667	456	68	40-110	
Anthracene	667	469	70	48-110	
Benzo[a]anthracene	667	504	76	50-110	
Benzo[a]pyrene	667	530	79	44-110	
Benzo[b]fluoranthene	667	545	82	43-110	
Benzo[g,h,i]perylene	667	545	82	51-110	
Benzo[k]fluoranthene	667	573	86	38-105	
Chrysene	667	540	81	50-110	
Dibenz(a,h)anthracene	667	532	80	51-110	
Fluoranthene	667	538	81	51-110	
Fluorene	667	460	69	46-110	
Indeno[1,2,3-cd]pyrene	667	517	78	50-110	
Naphthalene	667	478	72	36-110	
Phenanthrene	667	473	71	49-110	
Pyrene	667	538	81	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-B-1-1	240-54086-1	61	63	56	60	50	70
D-VS-B-2-1	240-54086-2	66	69	59	63	56	75
D-VS-B-3-1	240-54086-3	71	73	65	67	65	76
D-VS-B-4-1	240-54086-4	65	65	58	60	55	73
D-VB-B-1-2	240-54086-5	59	59	54	57	59	69
D-VB-B-2-2	240-54086-6	61	62	53	61	67	72
D-VB-B-3-2	240-54086-7	66	66	59	65	71	75
D-DUP01-080615	240-54086-8	60	59	55	59	57	72
D-VS-A-2-1	240-54086-9	67	69	60	64	41	76
D-VB-A-2-2	240-54086-10	63	63	55	58	48	69
	MB 240-192506/23-A	54	59	52	59	38	67
	LCS 240-192506/24-A	73	74	73	68	59	85

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-192864/2 CCVIS		121233	6.33	448073	7.45	251049	8.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-192864/2 CCVIS		372057	10.22	460856	12.50	399334	14.23

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: CCV 240-192864/2 Date Analyzed: 08/12/2015 07:43

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50812002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		121233	6.33	448073	7.45	251049	8.95
UPPER LIMIT		242466	6.83	896146	7.95	502098	9.45
LOWER LIMIT		60617	5.83	224037	6.95	125525	8.45
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-192864/3		128488	6.33	485018	7.45	270251	8.95
MB 240-192506/23-A		99989	6.33	404507	7.45	225948	8.95
LCS 240-192506/24-A		93935	6.33	367642	7.45	220989	8.95
240-54086-1	D-VS-B-1-1	102855	6.33	386751	7.45	227405	8.95
240-54086-2	D-VS-B-2-1	102822	6.33	395390	7.45	234479	8.95
240-54086-3	D-VS-B-3-1	101745	6.33	403968	7.45	234749	8.95
240-54086-4	D-VS-B-4-1	113623	6.33	445543	7.45	257957	8.95
240-54086-5	D-VB-B-1-2	115872	6.33	433752	7.45	255504	8.95
240-54086-6	D-VB-B-2-2	112276	6.33	436043	7.45	242975	8.95
240-54086-7	D-VB-B-3-2	113519	6.33	442628	7.45	250633	8.95
240-54086-8	D-DUP01-080615	117425	6.33	433933	7.45	254729	8.95
240-54086-9	D-VS-A-2-1	115958	6.33	455803	7.45	263419	8.95
240-54086-10	D-VB-A-2-2	114748	6.33	454698	7.45	269019	8.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54086-1

SDG No.:

Sample No.: CCV 240-192864/2 Date Analyzed: 08/12/2015 07:43

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50812002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		372057	10.22	460856	12.50	399334	14.23
UPPER LIMIT		744114	10.72	921712	13.00	798668	14.73
LOWER LIMIT		186029	9.72	230428	12.00	199667	13.73
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-192864/3		453654	10.22	514869	12.49	398658	14.23
MB 240-192506/23-A		374924	10.22	409041	12.50	320472	14.24
LCS 240-192506/24-A		347000	10.22	401424	12.50	323065	14.23
240-54086-1	D-VS-B-1-1	385349	10.22	427792	12.49	360978	14.23
240-54086-2	D-VS-B-2-1	388792	10.22	426850	12.50	379402	14.23
240-54086-3	D-VS-B-3-1	402424	10.22	446722	12.49	381540	14.23
240-54086-4	D-VS-B-4-1	418969	10.22	482447	12.50	439640	14.23
240-54086-5	D-VB-B-1-2	414181	10.22	466308	12.49	419233	14.23
240-54086-6	D-VB-B-2-2	416665	10.22	466223	12.50	428284	14.23
240-54086-7	D-VB-B-3-2	420333	10.22	483778	12.50	457480	14.23
240-54086-8	D-DUP01-080615	432391	10.22	473943	12.50	455861	14.23
240-54086-9	D-VS-A-2-1	434205	10.22	480251	12.50	455248	14.23
240-54086-10	D-VB-A-2-2	434035	10.22	475267	12.50	430633	14.23

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 21, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54270-1

SAMPLES: 18 / Soil / PAHs

D-DUP02-081215	D-DUP03-081215	D-VB-A-1-2
D-VB-A-3-2	D-VB-C-1-2	D-VB-C-2-2
D-VB-C-3-2	D-VB-C-4-2	D-VB-E-3-2
D-VB-E-6-2	D-VS-A-1-1	D-VS-A-3-1
D-VS-A-4-1	D-VS-C-1-1	D-VS-C-2-1
D-VS-C-3-1	D-VS-C-4-1	D-VS-E-2-1

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54270-1, consists of eighteen (18) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). Two (2) field duplicate pairs are included in this SDG: D-VS-C-4-1 (original) / D-DUP02-081215 (duplicate), and D-VB-E-3-2 (original) / D-DUP03-081215 (duplicate).

The samples were collected by Tetra Tech on August 12, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- In the field duplicate pair samples D-VS-C-4-1 / D-DUP02-081215, the relative percent difference (RPD) was greater than the quality control limit of 50% for acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, naphthalene, and pyrene. Additionally, the difference exceeded 2x the reporting limit (RL) for indeno(1,2,3-cd)pyrene. Detected results for these analytes were qualified as estimated (J) in the field duplicate pair samples D-VS-C-4-1 and D-DUP02-081215.

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

Sample D-VS-A-3-1 was analyzed at a dilution factor of 2.

The surrogate 2,4,6-tribromophenol percent recoveries (%Rs) were less than the laboratory quality control range for D-VS-E-2-1 and D-VB-E-6-2. No action was necessary, as none of the target analytes are associated with the acid surrogate 2,4,6-tribromophenol.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Some detected results were qualified for field duplicate imprecision. Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP02-081215			D-DUP03-081215			D-VB-A-1-2			D-VB-A-3-2		
SDG: 240-54270-1	LAB_ID	240-54270-14			240-54270-18			240-54270-4			240-54270-5		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	89.6			83.6			87.2			87.9		
	DUP_OF	D-VS-C-4-1			D-VB-E-3-2								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		15	J	G	0.92	U		35			18		
ACENAPHTHYLENE		0.39	U		0.42	U		5.1	J	P	65		
ANTHRACENE		16			0.94	U		45			31		
BENZO(A)ANTHRACENE		22	J	G	8.2			140			80		
BENZO(A)PYRENE		23	J	G	6	J	P	150			100		
BENZO(B)FLUORANTHENE		30	J	G	13			220			110		
BENZO(G,H,I)PERYLENE		17	J	G	0.42	U		110			100		
BENZO(K)FLUORANTHENE		15	J	G	0.82	U		77			49		
CHRYSENE		29	J	G	11			180			99		
DIBENZO(A,H)ANTHRACENE		0.73	U		0.8	U		29			20		
FLUORANTHENE		60	J	G	16			260			120		
FLUORENE		12			0.64	U		48			24		
INDENO(1,2,3-CD)PYRENE		13	J	G	0.42	U		93			68		
NAPHTHALENE		18	J	G	0.99	U		56			14		
PHENANTHRENE		52			8	J	P	120			75		
PYRENE		48	J	G	14			270			180		

PROJ_NO: 07483	NSAMPLE	D-VB-C-1-2			D-VB-C-2-2			D-VB-C-3-2			D-VB-C-4-2		
SDG: 240-54270-1	LAB_ID	240-54270-10			240-54270-11			240-54270-12			240-54270-13		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			84.6			81.1			82.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.9	U		0.91	U		28			0.93	U	
ACENAPHTHYLENE		0.42	U		0.42	U		0.44	U		0.43	U	
ANTHRACENE		0.93	U		0.93	U		0.97	U		0.95	U	
BENZO(A)ANTHRACENE		11			0.75	U		4.2	J	P	0.77	U	
BENZO(A)PYRENE		8.7			0.76	U		4.5	J	P	0.78	U	
BENZO(B)FLUORANTHENE		13			0.7	U		6.7	J	P	0.72	U	
BENZO(G,H,I)PERYLENE		0.42	U		0.42	U		0.44	U		0.43	U	
BENZO(K)FLUORANTHENE		0.81	U		0.81	U		0.85	U		0.83	U	
CHRYSENE		11			1.3	U		4.5	J	P	1.3	U	
DIBENZO(A,H)ANTHRACENE		0.78	U		0.79	U		0.82	U		0.81	U	
FLUORANTHENE		24			0.66	U		10			0.67	U	
FLUORENE		0.63	U		0.63	U		7.2	J	P	0.65	U	
INDENO(1,2,3-CD)PYRENE		0.42	U		0.42	U		0.44	U		0.43	U	
NAPHTHALENE		0.97	U		0.98	U		19			1	U	
PHENANTHRENE		12			0.87	U		11			0.89	U	
PYRENE		19			0.53	U		8.1	J	P	0.54	U	

PROJ_NO: 07483	NSAMPLE	D-VB-E-3-2			D-VB-E-6-2			D-VS-A-1-1			D-VS-A-3-1		
SDG: 240-54270-1	LAB_ID	240-54270-16			240-54270-17			240-54270-1			240-54270-2		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.1			86.2			87.8			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.91	U		9.5			5.5	J	P	380		
ACENAPHTHYLENE		0.42	U		0.41	U		5.4	J	P	14	J	P
ANTHRACENE		0.93	U		19			6.9	J	P	580		
BENZO(A)ANTHRACENE		6.5	J	P	76			22			1100		
BENZO(A)PYRENE		0.76	U		80			22			1000		
BENZO(B)FLUORANTHENE		0.7	U		110			31			1300		
BENZO(G,H,I)PERYLENE		0.42	U		63			17			710		
BENZO(K)FLUORANTHENE		0.81	U		48			16			560		
CHRYSENE		4.9	J	P	91			26			1100		
DIBENZO(A,H)ANTHRACENE		0.79	U		14			0.75	U		180		
FLUORANTHENE		10			150			40			2200		
FLUORENE		0.63	U		8.2			6.3	J	P	390		
INDENO(1,2,3-CD)PYRENE		0.42	U		55			15			600		
NAPHTHALENE		0.98	U		7.6	J	P	42			120		
PHENANTHRENE		6.2	J	P	77			20			1800		
PYRENE		8.5			130			40			1700		

PROJ_NO: 07483	NSAMPLE	D-VS-A-4-1			D-VS-C-1-1			D-VS-C-2-1			D-VS-C-3-1		
SDG: 240-54270-1	LAB_ID	240-54270-3			240-54270-6			240-54270-7			240-54270-8		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015			8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.8			81.9			87.2			82.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		80			60			51			130		
ACENAPHTHYLENE		16			0.43	U		9.2			0.43	U	
ANTHRACENE		220			99			150			74		
BENZO(A)ANTHRACENE		580			190			140			82		
BENZO(A)PYRENE		510			170			100			76		
BENZO(B)FLUORANTHENE		620			200			140			100		
BENZO(G,H,I)PERYLENE		320			110			71			50		
BENZO(K)FLUORANTHENE		300			110			68			40		
CHRYSENE		570			190			140			87		
DIBENZO(A,H)ANTHRACENE		92			25			23			13		
FLUORANTHENE		1100			440			500			230		
FLUORENE		98			51			78			98		
INDENO(1,2,3-CD)PYRENE		280			86			66			49		
NAPHTHALENE		84			72			52			69		
PHENANTHRENE		600			320			510			330		
PYRENE		880			360			410			180		

PROJ_NO: 07483	NSAMPLE	D-VS-C-4-1			D-VS-E-2-1		
SDG: 240-54270-1	LAB_ID	240-54270-9			240-54270-15		
FRACTION: PAH	SAMP_DATE	8/12/2015			8/12/2015		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	89.6			89.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		33	J	G	16		
ACENAPHTHYLENE		0.39	U		9.2		
ANTHRACENE		23			44		
BENZO(A)ANTHRACENE		57	J	G	270		
BENZO(A)PYRENE		55	J	G	310		
BENZO(B)FLUORANTHENE		70	J	G	510		
BENZO(G,H,I)PERYLENE		35	J	G	240		
BENZO(K)FLUORANTHENE		29	J	G	230		
CHRYSENE		61	J	G	520		
DIBENZO(A,H)ANTHRACENE		0.74	U		57		
FLUORANTHENE		110	J	G	620		
FLUORENE		21			12		
INDENO(1,2,3-CD)PYRENE		33	J	G	200		
NAPHTHALENE		40	J	G	4.3	J	P
PHENANTHRENE		79			150		
PYRENE		99	J	G	540		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-DUP02-081215 | Lab Sample ID: 240-54270-14

Matrix: Solid | Lab File ID: 50818013.D

Analysis Method: 8270D | Date Collected: 08/12/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.33(g) | Date Analyzed: 08/18/2015 12:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	15		7.4	0.84
208-96-8	Acenaphthylene	0.39	U	7.4	0.39
120-12-7	Anthracene	16		7.4	0.86
56-55-3	Benzo[a]anthracene	22		7.4	0.70
50-32-8	Benzo[a]pyrene	23		7.4	0.71
205-99-2	Benzo[b]fluoranthene	30		7.4	0.65
191-24-2	Benzo[g,h,i]perylene	17		7.4	0.39
207-08-9	Benzo[k]fluoranthene	15		7.4	0.75
218-01-9	Chrysene	29		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	0.73	U	7.4	0.73
206-44-0	Fluoranthene	60		7.4	0.61
86-73-7	Fluorene	12		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.4	0.39
91-20-3	Naphthalene	18		7.4	0.91
85-01-8	Phenanthrene	52		7.4	0.81
129-00-0	Pyrene	48		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	53		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-DUP03-081215 | Lab Sample ID: 240-54270-18

Matrix: Solid | Lab File ID: 50818011.D

Analysis Method: 8270D | Date Collected: 08/12/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.64(g) | Date Analyzed: 08/18/2015 11:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.1	0.92
208-96-8	Acenaphthylene	0.42	U	8.1	0.42
120-12-7	Anthracene	0.94	U	8.1	0.94
56-55-3	Benzo[a]anthracene	8.2		8.1	0.76
50-32-8	Benzo[a]pyrene	6.0	J	8.1	0.77
205-99-2	Benzo[b]fluoranthene	13		8.1	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.1	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.1	0.82
218-01-9	Chrysene	11		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.1	0.80
206-44-0	Fluoranthene	16		8.1	0.67
86-73-7	Fluorene	0.64	U	8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.1	0.42
91-20-3	Naphthalene	0.99	U	8.1	0.99
85-01-8	Phenanthrene	8.0	J	8.1	0.88
129-00-0	Pyrene	14		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	55		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-A-1-2 | Lab Sample ID: 240-54270-4

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.09(g) | Date Analyzed: 08/18/2015 13:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	35		7.6	0.87
208-96-8	Acenaphthylene	5.1	J	7.6	0.40
120-12-7	Anthracene	45		7.6	0.89
56-55-3	Benzo[a]anthracene	140		7.6	0.72
50-32-8	Benzo[a]pyrene	150		7.6	0.73
205-99-2	Benzo[b]fluoranthene	220		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	110		7.6	0.40
207-08-9	Benzo[k]fluoranthene	77		7.6	0.78
218-01-9	Chrysene	180		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	29		7.6	0.75
206-44-0	Fluoranthene	260		7.6	0.63
86-73-7	Fluorene	48		7.6	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	93		7.6	0.40
91-20-3	Naphthalene	56		7.6	0.94
85-01-8	Phenanthrene	120		7.6	0.83
129-00-0	Pyrene	270		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-A-3-2 | Lab Sample ID: 240-54270-5

Matrix: Solid | Lab File ID: 50818022.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:20

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.07(g) | Date Analyzed: 08/18/2015 16:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	18		7.6	0.86
208-96-8	Acenaphthylene	65		7.6	0.40
120-12-7	Anthracene	31		7.6	0.89
56-55-3	Benzo[a]anthracene	80		7.6	0.71
50-32-8	Benzo[a]pyrene	100		7.6	0.73
205-99-2	Benzo[b]fluoranthene	110		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	100		7.6	0.40
207-08-9	Benzo[k]fluoranthene	49		7.6	0.77
218-01-9	Chrysene	99		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	20		7.6	0.75
206-44-0	Fluoranthene	120		7.6	0.62
86-73-7	Fluorene	24		7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	68		7.6	0.40
91-20-3	Naphthalene	14		7.6	0.93
85-01-8	Phenanthrene	75		7.6	0.83
129-00-0	Pyrene	180		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		36-110
4165-62-2	Phenol-d5 (Surr)	52		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	54		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-1-2 | Lab Sample ID: 240-54270-10

Matrix: Solid | Lab File ID: 50818012.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:50

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.98(g) | Date Analyzed: 08/18/2015 11:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	11		7.9	0.75
50-32-8	Benzo[a]pyrene	8.7		7.9	0.76
205-99-2	Benzo[b]fluoranthene	13		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	11		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	24		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	12		7.9	0.87
129-00-0	Pyrene	19		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-2-2 | Lab Sample ID: 240-54270-11

Matrix: Solid | Lab File ID: 50818008.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:55

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.70(g) | Date Analyzed: 08/18/2015 10:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.93	U	8.0	0.93
56-55-3	Benzo[a]anthracene	0.75	U	8.0	0.75
50-32-8	Benzo[a]pyrene	0.76	U	8.0	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	8.0	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	8.0	0.81
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.63	U	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.98	U	8.0	0.98
85-01-8	Phenanthrene	0.87	U	8.0	0.87
129-00-0	Pyrene	0.53	U	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-3-2 | Lab Sample ID: 240-54270-12

Matrix: Solid | Lab File ID: 50818005.D

Analysis Method: 8270D | Date Collected: 08/12/2015 13:00

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:25

Sample wt/vol: 29.74(g) | Date Analyzed: 08/18/2015 14:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	28		8.3	0.95
208-96-8	Acenaphthylene	0.44	U	8.3	0.44
120-12-7	Anthracene	0.97	U	8.3	0.97
56-55-3	Benzo[a]anthracene	4.2	J	8.3	0.78
50-32-8	Benzo[a]pyrene	4.5	J	8.3	0.80
205-99-2	Benzo[b]fluoranthene	6.7	J	8.3	0.73
191-24-2	Benzo[g,h,i]perylene	0.44	U	8.3	0.44
207-08-9	Benzo[k]fluoranthene	0.85	U	8.3	0.85
218-01-9	Chrysene	4.5	J	8.3	1.4
53-70-3	Dibenz(a,h)anthracene	0.82	U	8.3	0.82
206-44-0	Fluoranthene	10		8.3	0.68
86-73-7	Fluorene	7.2	J	8.3	0.66
193-39-5	Indeno[1,2,3-cd]pyrene	0.44	U	8.3	0.44
91-20-3	Naphthalene	19		8.3	1.0
85-01-8	Phenanthrene	11		8.3	0.91
129-00-0	Pyrene	8.1	J	8.3	0.55

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	66		36-110
4165-62-2	Phenol-d5 (Surr)	62		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	48		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	35		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-C-4-2 | Lab Sample ID: 240-54270-13

Matrix: Solid | Lab File ID: 50818009.D

Analysis Method: 8270D | Date Collected: 08/12/2015 13:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.63(g) | Date Analyzed: 08/18/2015 10:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.95	U	8.2	0.95
56-55-3	Benzo[a]anthracene	0.77	U	8.2	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.2	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.2	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.2	0.83
218-01-9	Chrysene	1.3	U	8.2	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.2	0.81
206-44-0	Fluoranthene	0.67	U	8.2	0.67
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	0.89	U	8.2	0.89
129-00-0	Pyrene	0.54	U	8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	65		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	51		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	57		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	39		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-E-3-2 | Lab Sample ID: 240-54270-16

Matrix: Solid | Lab File ID: 50818010.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.60(g) | Date Analyzed: 08/18/2015 11:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	7.9	0.91
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	6.5	J	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	4.9	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	10		7.9	0.66
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	6.2	J	7.9	0.87
129-00-0	Pyrene	8.5		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	57		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	14		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VB-E-6-2 | Lab Sample ID: 240-54270-17

Matrix: Solid | Lab File ID: 50818024.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:10

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.79(g) | Date Analyzed: 08/18/2015 16:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	9.5		7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	19		7.8	0.91
56-55-3	Benzo[a]anthracene	76		7.8	0.74
50-32-8	Benzo[a]pyrene	80		7.8	0.75
205-99-2	Benzo[b]fluoranthene	110		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	63		7.8	0.41
207-08-9	Benzo[k]fluoranthene	48		7.8	0.79
218-01-9	Chrysene	91		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	14		7.8	0.77
206-44-0	Fluoranthene	150		7.8	0.64
86-73-7	Fluorene	8.2		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	55		7.8	0.41
91-20-3	Naphthalene	7.6	J	7.8	0.96
85-01-8	Phenanthrene	77		7.8	0.85
129-00-0	Pyrene	130		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	61		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-1-1 | Lab Sample ID: 240-54270-1

Matrix: Solid | Lab File ID: 50818016.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.18(g) | Date Analyzed: 08/18/2015 13:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.5	J	7.6	0.86
208-96-8	Acenaphthylene	5.4	J	7.6	0.40
120-12-7	Anthracene	6.9	J	7.6	0.88
56-55-3	Benzo[a]anthracene	22		7.6	0.71
50-32-8	Benzo[a]pyrene	22		7.6	0.72
205-99-2	Benzo[b]fluoranthene	31		7.6	0.67
191-24-2	Benzo[g,h,i]perylene	17		7.6	0.40
207-08-9	Benzo[k]fluoranthene	16		7.6	0.77
218-01-9	Chrysene	26		7.6	1.2
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	40		7.6	0.62
86-73-7	Fluorene	6.3	J	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	15		7.6	0.40
91-20-3	Naphthalene	42		7.6	0.93
85-01-8	Phenanthrene	20		7.6	0.83
129-00-0	Pyrene	40		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	60		20-110
367-12-4	2-Fluorophenol (Surr)	61		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-3-1 | Lab Sample ID: 240-54270-2

Matrix: Solid | Lab File ID: 50818020.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:05

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.16(g) | Date Analyzed: 08/18/2015 15:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	380		15	1.7
208-96-8	Acenaphthylene	14	J	15	0.77
120-12-7	Anthracene	580		15	1.7
56-55-3	Benzo[a]anthracene	1100		15	1.4
50-32-8	Benzo[a]pyrene	1000		15	1.4
205-99-2	Benzo[b]fluoranthene	1300		15	1.3
191-24-2	Benzo[g,h,i]perylene	710		15	0.77
207-08-9	Benzo[k]fluoranthene	560		15	1.5
218-01-9	Chrysene	1100		15	2.4
53-70-3	Dibenz(a,h)anthracene	180		15	1.5
206-44-0	Fluoranthene	2200		15	1.2
86-73-7	Fluorene	390		15	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	600		15	0.77
91-20-3	Naphthalene	120		15	1.8
85-01-8	Phenanthrene	1800		15	1.6
129-00-0	Pyrene	1700		15	0.97

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	68		36-110
4165-62-2	Phenol-d5 (Surr)	39		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		20-110
367-12-4	2-Fluorophenol (Surr)	43		24-110
321-60-8	2-Fluorobiphenyl (Surr)	52		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-A-4-1 | Lab Sample ID: 240-54270-3

Matrix: Solid | Lab File ID: 50818021.D

Analysis Method: 8270D | Date Collected: 08/12/2015 10:10

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.11(g) | Date Analyzed: 08/18/2015 15:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	80		7.3	0.83
208-96-8	Acenaphthylene	16		7.3	0.38
120-12-7	Anthracene	220		7.3	0.86
56-55-3	Benzo[a]anthracene	580		7.3	0.69
50-32-8	Benzo[a]pyrene	510		7.3	0.70
205-99-2	Benzo[b]fluoranthene	620		7.3	0.65
191-24-2	Benzo[g,h,i]perylene	320		7.3	0.38
207-08-9	Benzo[k]fluoranthene	300		7.3	0.75
218-01-9	Chrysene	570		7.3	1.2
53-70-3	Dibenz(a,h)anthracene	92		7.3	0.72
206-44-0	Fluoranthene	1100		7.3	0.60
86-73-7	Fluorene	98		7.3	0.58
193-39-5	Indeno[1,2,3-cd]pyrene	280		7.3	0.38
91-20-3	Naphthalene	84		7.3	0.90
85-01-8	Phenanthrene	600		7.3	0.80
129-00-0	Pyrene	880		7.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	46		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	63		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-1-1 | Lab Sample ID: 240-54270-6

Matrix: Solid | Lab File ID: 50818014.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:30

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30.13(g) | Date Analyzed: 08/18/2015 12:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	60		8.1	0.92
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	99		8.1	0.95
56-55-3	Benzo[a]anthracene	190		8.1	0.77
50-32-8	Benzo[a]pyrene	170		8.1	0.78
205-99-2	Benzo[b]fluoranthene	200		8.1	0.72
191-24-2	Benzo[g,h,i]perylene	110		8.1	0.43
207-08-9	Benzo[k]fluoranthene	110		8.1	0.83
218-01-9	Chrysene	190		8.1	1.3
53-70-3	Dibenz(a,h)anthracene	25		8.1	0.80
206-44-0	Fluoranthene	440		8.1	0.67
86-73-7	Fluorene	51		8.1	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	86		8.1	0.43
91-20-3	Naphthalene	72		8.1	1.0
85-01-8	Phenanthrene	320		8.1	0.89
129-00-0	Pyrene	360		8.1	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		36-110
4165-62-2	Phenol-d5 (Surr)	59		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-2-1 | Lab Sample ID: 240-54270-7

Matrix: Solid | Lab File ID: 50818023.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:35

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.80(g) | Date Analyzed: 08/18/2015 16:28

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	51		7.7	0.88
208-96-8	Acenaphthylene	9.2		7.7	0.40
120-12-7	Anthracene	150		7.7	0.90
56-55-3	Benzo[a]anthracene	140		7.7	0.73
50-32-8	Benzo[a]pyrene	100		7.7	0.74
205-99-2	Benzo[b]fluoranthene	140		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	71		7.7	0.40
207-08-9	Benzo[k]fluoranthene	68		7.7	0.78
218-01-9	Chrysene	140		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	23		7.7	0.76
206-44-0	Fluoranthene	500		7.7	0.63
86-73-7	Fluorene	78		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	66		7.7	0.40
91-20-3	Naphthalene	52		7.7	0.95
85-01-8	Phenanthrene	510		7.7	0.84
129-00-0	Pyrene	410		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		20-110
367-12-4	2-Fluorophenol (Surr)	58		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-3-1 | Lab Sample ID: 240-54270-8

Matrix: Solid | Lab File ID: 50818018.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:40

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.77(g) | Date Analyzed: 08/18/2015 14:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	130		8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	74		8.2	0.96
56-55-3	Benzo[a]anthracene	82		8.2	0.77
50-32-8	Benzo[a]pyrene	76		8.2	0.78
205-99-2	Benzo[b]fluoranthene	100		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	50		8.2	0.43
207-08-9	Benzo[k]fluoranthene	40		8.2	0.83
218-01-9	Chrysene	87		8.2	1.3
53-70-3	Dibenz(a,h)anthracene	13		8.2	0.81
206-44-0	Fluoranthene	230		8.2	0.67
86-73-7	Fluorene	98		8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	49		8.2	0.43
91-20-3	Naphthalene	69		8.2	1.0
85-01-8	Phenanthrene	330		8.2	0.89
129-00-0	Pyrene	180		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		36-110
4165-62-2	Phenol-d5 (Surr)	56		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	59		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	30		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-C-4-1 | Lab Sample ID: 240-54270-9

Matrix: Solid | Lab File ID: 50818015.D

Analysis Method: 8270D | Date Collected: 08/12/2015 12:45

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.97(g) | Date Analyzed: 08/18/2015 13:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	33		7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	23		7.5	0.87
56-55-3	Benzo[a]anthracene	57		7.5	0.70
50-32-8	Benzo[a]pyrene	55		7.5	0.72
205-99-2	Benzo[b]fluoranthene	70		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	35		7.5	0.39
207-08-9	Benzo[k]fluoranthene	29		7.5	0.76
218-01-9	Chrysene	61		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	110		7.5	0.61
86-73-7	Fluorene	21		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	33		7.5	0.39
91-20-3	Naphthalene	40		7.5	0.92
85-01-8	Phenanthrene	79		7.5	0.82
129-00-0	Pyrene	99		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		36-110
4165-62-2	Phenol-d5 (Surr)	54		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	60		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: D-VS-E-2-1 | Lab Sample ID: 240-54270-15

Matrix: Solid | Lab File ID: 50818019.D

Analysis Method: 8270D | Date Collected: 08/12/2015 15:00

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 29.96(g) | Date Analyzed: 08/18/2015 14:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	16		7.5	0.85
208-96-8	Acenaphthylene	9.2		7.5	0.39
120-12-7	Anthracene	44		7.5	0.87
56-55-3	Benzo[a]anthracene	270		7.5	0.70
50-32-8	Benzo[a]pyrene	310		7.5	0.72
205-99-2	Benzo[b]fluoranthene	510		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	240		7.5	0.39
207-08-9	Benzo[k]fluoranthene	230		7.5	0.76
218-01-9	Chrysene	520		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	57		7.5	0.74
206-44-0	Fluoranthene	620		7.5	0.61
86-73-7	Fluorene	12		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	200		7.5	0.39
91-20-3	Naphthalene	4.3	J	7.5	0.92
85-01-8	Phenanthrene	150		7.5	0.82
129-00-0	Pyrene	540		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	52		36-110
4165-62-2	Phenol-d5 (Surr)	41		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	39		24-110
321-60-8	2-Fluorobiphenyl (Surr)	46		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	2	X	10-110

APPENDIX C

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

26 | C3.6

1 OF 2

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS — TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1000	X		O-VS-A-1-1	1	X						* SAMPLES GO TO
		1005	X		O-VS-A-3-1		X						TESTAMERICA NORTH CANTON
		1010	X		O-VS-A-4-1		X						* 3 DAY TAT *
		1015		X	O-VB-A-1-2		X						* SCOTT NESBIT IS P/M.
		1020		X	O-VB-A-3-2		X						
		1230	X		~~O-VS-A-3~~ O-VS-C-1-1		X						
		1235	X		O-VS-C-2-1		X						
		1240	X		O-VS-C-3-1		X						
		1245	X		O-VS-C-4-1		X						
		1250		X	O-VB-C-1-2		X						
		1255		X	O-VB-C-2-2		X						
		1300		X	O-VB-C-3-2		X						
		1305		X	O-VB-C-4-2		X						
		—	X		O-DUP02-081215		X						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710			8/12/15 1900	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	
			8/13/15 930		

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Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

2 OF 2

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS — TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)						REMARKS
MRC	8/12	1500	X		D-VS-E-2-1	1	X						☆ ALL SAMPLES GO TO
"	"	1505	X	X	D-VB-E-3-2	"	X						TESTAMERICA NORTH CANTON
"	"	1510	X	X	D-VB-E-6-2	"	X						☆ 3 DAY TAT
"	"	—	X	X	D-QUB03-081215	"	X						☆ SCOTT NESBIT IS P.M.

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/12/15 1710			8/12/15 1900	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS A, C, E (PARTIAL)	
			8/13/15 1130		

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 54270
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Alex Cd

Cooler Received on 8/13/13 Opened on 8/13/13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 3.6 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54270-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/13/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-A-1-1 (240-54270-1), D-VS-A-3-1 (240-54270-2), D-VS-A-4-1 (240-54270-3), D-VB-A-1-2 (240-54270-4), D-VB-A-3-2 (240-54270-5), D-VS-C-1-1 (240-54270-6), D-VS-C-2-1 (240-54270-7), D-VS-C-3-1 (240-54270-8), D-VS-C-4-1 (240-54270-9), D-VB-C-1-2 (240-54270-10), D-VB-C-2-2 (240-54270-11), D-VB-C-3-2 (240-54270-12), D-VB-C-4-2 (240-54270-13), D-DUP02-081215 (240-54270-14), D-VS-E-2-1 (240-54270-15), D-VB-E-3-2 (240-54270-16), D-VB-E-6-2 (240-54270-17) and D-DUP03-081215 (240-54270-18) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/14/2015 and 08/15/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VS-E-2-1 (240-54270-15). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-E-6-2 (240-54270-17).

Sample D-VS-A-3-1 (240-54270-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Sample 240-54270-B-15-A has one acid surrogate recovery below acceptance criteria. The target analyte list for this sample is BN only, therefore, no corrective action was required.

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693. However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-A-1-1 (240-54270-1), D-VS-A-3-1 (240-54270-2), D-VS-A-4-1 (240-54270-3), D-VB-A-1-2 (240-54270-4), D-VB-A-3-2 (240-54270-5), D-VS-C-1-1 (240-54270-6), D-VS-C-2-1 (240-54270-7), D-VS-C-3-1 (240-54270-8), D-VS-C-4-1 (240-54270-9), D-VB-C-1-2 (240-54270-10), D-VB-C-2-2 (240-54270-11), D-VB-C-3-2 (240-54270-12), D-VB-C-4-2 (240-54270-13), D-DUP02-081215 (240-54270-14), D-VS-E-2-1 (240-54270-15), D-VB-E-3-2 (240-54270-16), D-VB-E-6-2 (240-54270-17) and D-DUP03-081215 (240-54270-18) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54270-1	D-VS-A-1-1	Solid	08/12/2015 1000	08/13/2015 0930
240-54270-2	D-VS-A-3-1	Solid	08/12/2015 1005	08/13/2015 0930
240-54270-3	D-VS-A-4-1	Solid	08/12/2015 1010	08/13/2015 0930
240-54270-4	D-VB-A-1-2	Solid	08/12/2015 1015	08/13/2015 0930
240-54270-5	D-VB-A-3-2	Solid	08/12/2015 1020	08/13/2015 0930
240-54270-6	D-VS-C-1-1	Solid	08/12/2015 1230	08/13/2015 0930
240-54270-7	D-VS-C-2-1	Solid	08/12/2015 1235	08/13/2015 0930
240-54270-8	D-VS-C-3-1	Solid	08/12/2015 1240	08/13/2015 0930
240-54270-9	D-VS-C-4-1	Solid	08/12/2015 1245	08/13/2015 0930
240-54270-10	D-VB-C-1-2	Solid	08/12/2015 1250	08/13/2015 0930
240-54270-11	D-VB-C-2-2	Solid	08/12/2015 1255	08/13/2015 0930
240-54270-12	D-VB-C-3-2	Solid	08/12/2015 1300	08/13/2015 0930
240-54270-13	D-VB-C-4-2	Solid	08/12/2015 1305	08/13/2015 0930
240-54270-14	D-DUP02-081215	Solid	08/12/2015 0000	08/13/2015 0930
240-54270-15	D-VS-E-2-1	Solid	08/12/2015 1500	08/13/2015 0930
240-54270-16	D-VB-E-3-2	Solid	08/12/2015 1505	08/13/2015 0930
240-54270-17	D-VB-E-6-2	Solid	08/12/2015 1510	08/13/2015 0930
240-54270-18	D-DUP03-081215	Solid	08/12/2015 0000	08/13/2015 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54270-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

FIELD DUPLICATE PRECISION

ANALYTE	D-VS-C-4-1	QUAL	D-DUP02-081215	QUAL	RPD	DIFFERENCE	RL
ACENAPHTHENE	33		15		75.00	18.00	7.5
ACENAPHTHYLENE	0.39	U	0.39	U	0.00	0.00	7.5
ANTHRACENE	23		16		35.90	7.00	7.5
BENZO(A)ANTHRACENE	57		22		88.61	35.00	7.5
BENZO(A)PYRENE	55		23		82.05	32.00	7.5
BENZO(B)FLUORANTHENE	70		30		80.00	40.00	7.5
BENZO(G,H,I)PERYLENE	35		17		69.23	18.00	7.5
BENZO(K)FLUORANTHENE	29		15		63.64	14.00	7.5
CHRYSENE	61		29		71.11	32.00	7.5
DIBENZO(A,H)ANTHRACENE	0.74	U	0.73	U	1.36	0.01	7.5
FLUORANTHENE	110		60		58.82	50.00	7.5
FLUORENE	21		12		54.55	9.00	7.5
INDENO(1,2,3-CD)PYRENE	33		13		86.96	20.00	7.5
NAPHTHALENE	40		18		75.86	22.00	7.5
PHENANTHRENE	79		52		41.22	27.00	7.5
PYRENE	99		48		69.39	51.00	7.5

FIELD DUPLICATE PRECISION

ANALYTE	D-VB-E-3-2	QUAL	D-DUP03-081215	QUAL	RPD	DIFFERENCE	RL
ACENAPHTHENE	0.91	U	0.92	U	1.09	0.01	8.1
ACENAPHTHYLENE	0.42	U	0.42	U	0.00	0.00	8.1
ANTHRACENE	0.93	U	0.94	U	1.07	0.01	8.1
BENZO(A)ANTHRACENE	6.5	J	8.2		23.13	1.70	8.1
BENZO(A)PYRENE	0.76	U	6	J	155.03	5.24	8.1
BENZO(B)FLUORANTHENE	0.7	U	13		179.56	12.30	8.1
BENZO(G,H,I)PERYLENE	0.42	U	0.42	U	0.00	0.00	8.1
BENZO(K)FLUORANTHENE	0.81	U	0.82	U	1.23	0.01	8.1
CHRYSENE	4.9	J	11		76.73	6.10	8.1
DIBENZO(A,H)ANTHRACENE	0.79	U	0.8	U	1.26	0.01	8.1
FLUORANTHENE	10		16		46.15	6.00	8.1
FLUORENE	0.63	U	0.64	U	1.57	0.01	8.1
INDENO(1,2,3-CD)PYRENE	0.42	U	0.42	U	0.00	0.00	8.1
NAPHTHALENE	0.98	U	0.99	U	1.02	0.01	8.1
PHENANTHRENE	6.2	J	8	J	25.35	1.80	8.1
PYRENE	8.5		14		48.89	5.50	8.1

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	LCS 240-193424/11-A	50818004.D	08/18/2015	13:46
D-VB-C-3-2	240-54270-12	50818005.D	08/18/2015	14:10
	MB 240-193424/10-A	50818017.D	08/18/2015	14:34

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818017.D Lab Sample ID: MB 240-193424/10-A

Matrix: Solid Date Extracted: 08/15/2015 10:20

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 14:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193424/11-A	50818004.D	08/18/2015 13:46
D-VB-C-3-2	240-54270-12	50818005.D	08/18/2015 14:10

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193424/10-A

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 14:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	42		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193424/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	412	62	38-110	
Acenaphthylene	667	420	63	40-110	
Anthracene	667	439	66	48-110	
Benzo[a]anthracene	667	432	65	50-110	
Benzo[a]pyrene	667	458	69	44-110	
Benzo[b]fluoranthene	667	446	67	43-110	
Benzo[g,h,i]perylene	667	491	74	51-110	
Benzo[k]fluoranthene	667	437	66	38-105	
Chrysene	667	466	70	50-110	
Dibenz(a,h)anthracene	667	517	78	51-110	
Fluoranthene	667	444	67	51-110	
Fluorene	667	401	60	46-110	
Indeno[1,2,3-cd]pyrene	667	526	79	50-110	
Naphthalene	667	421	63	36-110	
Phenanthrene	667	430	65	49-110	
Pyrene	667	428	64	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54270-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:26

Analysis Batch No.: 193684

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	75.5	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	57.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	24.7	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	67.5	
443	15.0 - 24.0% of mass 442	13.5	(20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193684/2	50818002.D	08/18/2015	07:47
	MB 240-193298/23-A	50818003.D	08/18/2015	08:12
	LCS 240-193298/24-A	50818004.D	08/18/2015	08:37
D-VB-C-2-2	240-54270-11	50818008.D	08/18/2015	10:15
D-VB-C-4-2	240-54270-13	50818009.D	08/18/2015	10:40
D-VB-E-3-2	240-54270-16	50818010.D	08/18/2015	11:05
D-DUP03-081215	240-54270-18	50818011.D	08/18/2015	11:29
D-VB-C-1-2	240-54270-10	50818012.D	08/18/2015	11:54
D-DUP02-081215	240-54270-14	50818013.D	08/18/2015	12:19
D-VS-C-1-1	240-54270-6	50818014.D	08/18/2015	12:44
D-VS-C-4-1	240-54270-9	50818015.D	08/18/2015	13:09
D-VS-A-1-1	240-54270-1	50818016.D	08/18/2015	13:34
D-VB-A-1-2	240-54270-4	50818017.D	08/18/2015	13:59
D-VS-C-3-1	240-54270-8	50818018.D	08/18/2015	14:24
D-VS-E-2-1	240-54270-15	50818019.D	08/18/2015	14:49
D-VS-A-3-1	240-54270-2	50818020.D	08/18/2015	15:13
D-VS-A-4-1	240-54270-3	50818021.D	08/18/2015	15:38
D-VB-A-3-2	240-54270-5	50818022.D	08/18/2015	16:03
D-VS-C-2-1	240-54270-7	50818023.D	08/18/2015	16:28
D-VB-E-6-2	240-54270-17	50818024.D	08/18/2015	16:53

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID (1): CCV 240-193684/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/18/2015 07:47

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.99	100.0
Phenol-d5 (Surr)	5.87	100.0
Nitrobenzene-d5 (Surr)	6.69	100.0
Naphthalene	7.35	100.0
2-Fluorobiphenyl (Surr)	8.23	100.0
Acenaphthylene	8.71	100.0
Acenaphthene	8.86	100.0
Fluorene	9.29	100.0
2,4,6-Tribromophenol (Surr)	9.50	100.0
Phenanthrene	10.11	100.0
Anthracene	10.15	100.0
Fluoranthene	11.12	100.0
Pyrene	11.32	100.0
Terphenyl-d14 (Surr)	11.40	100.0
Benzo[a]anthracene	12.33	100.0
Chrysene	12.37	100.0
Benzo[b]fluoranthene	13.47	37.20
Benzo[k]fluoranthene	13.50	100.0
Benzo[a]pyrene	13.90	100.0
Indeno[1,2,3-cd]pyrene	15.74	100.0
Dibenz(a,h)anthracene	15.75	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9339		9.47	10.0	-5.3	20.0
N-Nitrosodimethylamine	Ave	1.693	1.585		9.36	10.0	-6.4	20.0
Pyridine	Ave	2.930	2.610		8.91	10.0	-10.9	20.0
Benzaldehyde	Ave	2.328	2.222	0.0100	19.1	20.0	-4.6	20.0
Phenol	Ave	2.775	2.882	0.8000	10.4	10.0	3.8	20.0
Aniline	Ave	3.583	3.335		9.31	10.0	-6.9	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.404	0.7000	9.59	10.0	-4.1	20.0
2-Chlorophenol	Ave	1.523	1.500	0.8000	9.85	10.0	-1.5	20.0
n-Decane	Ave	1.999	1.941		9.71	10.0	-2.9	20.0
1,3-Dichlorobenzene	Ave	1.630	1.586		9.73	10.0	-2.7	20.0
1,4-Dichlorobenzene	Ave	1.666	1.604		9.63	10.0	-3.7	20.0
Benzyl alcohol	Ave	1.232	1.168		9.47	10.0	-5.3	20.0
1,2-Dichlorobenzene	Ave	1.580	1.536		9.72	10.0	-2.8	20.0
2-Methylphenol	Ave	1.706	1.619	0.7000	9.49	10.0	-5.1	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.740		9.23	10.0	-7.7	20.0
Indene	Ave	3.185	3.066		19.2	20.0	-3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.903	0.5000	9.61	10.0	-3.9	20.0
Acetophenone	Ave	2.817	2.697	0.0100	9.58	10.0	-4.2	20.0
3 & 4 Methylphenol	Ave	1.799	1.651		9.18	10.0	-8.2	20.0
Hexachloroethane	Ave	0.8166	0.8145	0.3000	9.97	10.0	-0.3	20.0
Nitrobenzene	Ave	0.7749	0.7808	0.2000	10.1	10.0	0.8	20.0
Isophorone	Ave	1.226	1.220	0.4000	9.95	10.0	-0.5	20.0
2-Nitrophenol	Ave	0.1796	0.1874	0.1000	10.4	10.0	4.4	20.0
2,4-Dimethylphenol	Ave	0.4892	0.5082	0.2000	10.4	10.0	3.9	20.0
Benzoic acid	Lin1		0.1809		16.2	20.0	-19.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6729	0.3000	9.95	10.0	-0.5	20.0
2,4-Dichlorophenol	Ave	0.3062	0.3022	0.2000	9.87	10.0	-1.3	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3303		10.2	10.0	1.5	20.0
Naphthalene	Ave	1.144	1.085	0.7000	9.49	10.0	-5.1	20.0
4-Chloroaniline	Ave	0.4932	0.4696	0.0100	9.52	10.0	-4.8	20.0
2,6-Dichlorophenol	Ave	0.2967	0.3018		10.2	10.0	1.7	20.0
Hexachlorobutadiene	Ave	0.2017	0.2134	0.0100	10.6	10.0	5.8	20.0
Caprolactam	Ave	0.1384	0.1457	0.0100	21.0	20.0	5.2	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4159	0.2000	9.94	10.0	-0.6	20.0
2-Methylnaphthalene	Ave	0.7006	0.6800	0.4000	9.71	10.0	-2.9	20.0
1-Methylnaphthalene	Ave	0.6168	0.5926		9.61	10.0	-3.9	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.2649	0.0500	7.99	10.0	-20.1*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5795	0.0100	10.2	10.0	1.8	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3863	0.2000	10.3	10.0	3.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3777	0.2000	9.57	10.0	-4.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.408	0.0100	9.49	10.0	-5.1	20.0
2-Chloronaphthalene	Ave	1.171	1.138	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.6109	0.6203	0.0100	10.2	10.0	1.5	20.0
Dimethyl phthalate	Ave	1.267	1.291	0.0100	10.2	10.0	1.9	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2097		10.6	10.0	6.3	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.3066		10.9	10.0	9.3	20.0
Acenaphthylene	Ave	1.869	1.813	0.9000	9.70	10.0	-3.0	20.0
3-Nitroaniline	Ave	0.3056	0.3130	0.0100	10.2	10.0	2.4	20.0
2,4-Dinitrophenol	Lin1		0.1441	0.0100	19.8	20.0	-0.9	20.0
Acenaphthene	Ave	1.201	1.159	0.9000	9.66	10.0	-3.4	20.0
4-Nitrophenol	Ave	0.2548	0.3002		23.6	20.0	17.8	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.4191	0.2000	11.2	10.0	12.0	20.0
Dibenzofuran	Ave	1.648	1.587	0.8000	9.63	10.0	-3.7	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3346	0.0100	10.6	10.0	6.3	20.0
Diethyl phthalate	Ave	1.245	1.301	0.0100	10.5	10.0	4.5	20.0
Hexadecane	Ave	1.016	0.9757		9.60	10.0	-4.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.6163	0.4000	10.0	10.0	0.4	20.0
4-Nitroaniline	Ave	0.2967	0.3358	0.0100	11.3	10.0	13.1	20.0
Fluorene	Ave	1.379	1.301	0.9000	9.44	10.0	-5.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1336	0.0100	21.7	20.0	8.5	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5478	0.0100	19.3	20.0	-3.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.509		9.55	10.0	-4.5	20.0
Azobenzene	Ave	1.580	1.508		9.55	10.0	-4.5	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2110	0.1000	9.88	10.0	-1.2	20.0
Hexachlorobenzene	Ave	0.2114	0.2167	0.1000	10.2	10.0	2.5	20.0
Atrazine	Ave	0.2132	0.2261	0.0100	21.2	20.0	6.0	20.0
n-Octadecane	Ave	0.6421	0.5913		9.21	10.0	-7.9	20.0
Pentachlorophenol	Ave	0.1444	0.1373	0.0500	19.0	20.0	-4.9	20.0
Phenanthrene	Ave	1.268	1.153	0.7000	9.09	10.0	-9.1	20.0
Anthracene	Ave	1.261	1.184	0.7000	9.39	10.0	-6.1	20.0
Carbazole	Ave	1.050	1.066	0.0100	10.2	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.250	1.350	0.0100	10.8	10.0	8.0	20.0
Fluoranthene	Ave	1.280	1.283	0.6000	10.0	10.0	0.2	20.0
Benzidine	Lin1		0.6581		21.3	20.0	6.6	20.0
Pyrene	Ave	1.153	1.201	0.6000	10.4	10.0	4.2	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5758	0.0100	10.7	10.0	7.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7786	0.0100	10.6	10.0	6.5	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.4032	0.0100	22.4	20.0	12.2	20.0
Benzo[a]anthracene	Ave	1.234	1.212	0.8000	9.82	10.0	-1.8	20.0
Chrysene	Ave	1.158	1.137	0.7000	9.82	10.0	-1.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab Sample ID: CCV 240-193684/2 Calibration Date: 08/18/2015 07:47

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.478	0.0100	10.4	10.0	4.2	20.0
Benzo[b]fluoranthene	Ave	1.185	1.133	0.7000	9.56	10.0	-4.4	20.0
Benzo[k]fluoranthene	Ave	1.198	1.304	0.7000	10.9	10.0	8.8	20.0
Benzo[a]pyrene	Ave	1.128	1.142	0.7000	10.1	10.0	1.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.279	0.5000	10.9	10.0	9.1	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.017	0.4000	11.1	10.0	10.6	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.091	0.5000	11.2	10.0	12.0	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.704		9.74	10.0	-2.6	20.0
Phenol-d5 (Surr)	Ave	2.475	2.374		9.59	10.0	-4.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7746		10.0	10.0	-0.0	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.241		9.50	10.0	-5.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1482		11.4	10.0	13.9	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7498		10.2	10.0	1.8	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Lab File ID: 50818003.D Lab Sample ID: MB 240-193298/23-A

Matrix: Solid Date Extracted: 08/14/2015 09:27

Instrument ID: A4HP9 Date Analyzed: 08/18/2015 08:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193298/24-A	50818004.D	08/18/2015 08:37
D-VB-C-2-2	240-54270-11	50818008.D	08/18/2015 10:15
D-VB-C-4-2	240-54270-13	50818009.D	08/18/2015 10:40
D-VB-E-3-2	240-54270-16	50818010.D	08/18/2015 11:05
D-DUP03-081215	240-54270-18	50818011.D	08/18/2015 11:29
D-VB-C-1-2	240-54270-10	50818012.D	08/18/2015 11:54
D-DUP02-081215	240-54270-14	50818013.D	08/18/2015 12:19
D-VS-C-1-1	240-54270-6	50818014.D	08/18/2015 12:44
D-VS-C-4-1	240-54270-9	50818015.D	08/18/2015 13:09
D-VS-A-1-1	240-54270-1	50818016.D	08/18/2015 13:34
D-VB-A-1-2	240-54270-4	50818017.D	08/18/2015 13:59
D-VS-C-3-1	240-54270-8	50818018.D	08/18/2015 14:24
D-VS-E-2-1	240-54270-15	50818019.D	08/18/2015 14:49
D-VS-A-3-1	240-54270-2	50818020.D	08/18/2015 15:13
D-VS-A-4-1	240-54270-3	50818021.D	08/18/2015 15:38
D-VB-A-3-2	240-54270-5	50818022.D	08/18/2015 16:03
D-VS-C-2-1	240-54270-7	50818023.D	08/18/2015 16:28
D-VB-E-6-2	240-54270-17	50818024.D	08/18/2015 16:53

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54270-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193298/23-A

Matrix: Solid | Lab File ID: 50818003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/14/2015 09:27

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 08:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193684 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		36-110
4165-62-2	Phenol-d5 (Surr)	71		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	67		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193298/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	430	65	38-110	
Acenaphthylene	667	424	64	40-110	
Anthracene	667	465	70	48-110	
Benzo[a]anthracene	667	481	72	50-110	
Benzo[a]pyrene	667	510	77	44-110	
Benzo[b]fluoranthene	667	502	75	43-110	
Benzo[g,h,i]perylene	667	560	84	51-110	
Benzo[k]fluoranthene	667	529	79	38-105	
Chrysene	667	506	76	50-110	
Dibenz(a,h)anthracene	667	544	82	51-110	
Fluoranthene	667	500	75	51-110	
Fluorene	667	444	67	46-110	
Indeno[1,2,3-cd]pyrene	667	552	83	50-110	
Naphthalene	667	434	65	36-110	
Phenanthrene	667	459	69	49-110	
Pyrene	667	512	77	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-A-1-1	240-54270-1	61	50	60	64	44	79
D-VS-A-3-1	240-54270-2	43	39	44	52	40	68
D-VS-A-4-1	240-54270-3	58	46	53	63	38	78
D-VB-A-1-2	240-54270-4	63	61	62	71	36	84
D-VB-A-3-2	240-54270-5	54	52	53	59	22	72
D-VS-C-1-1	240-54270-6	63	59	61	64	37	81
D-VS-C-2-1	240-54270-7	58	50	59	62	44	77
D-VS-C-3-1	240-54270-8	59	56	56	59	30	73
D-VS-C-4-1	240-54270-9	55	54	55	60	38	75
D-VB-C-1-2	240-54270-10	57	58	56	60	45	76
D-VB-C-2-2	240-54270-11	57	59	56	63	44	75
D-VB-C-3-2	240-54270-12	60	62	48	53	35	66
D-VB-C-4-2	240-54270-13	57	51	51	57	39	65
D-DUP02-081215	240-54270-14	60	60	59	63	53	78
D-VS-E-2-1	240-54270-15	39	41	41	46	2 X	52
D-VB-E-3-2	240-54270-16	57	53	56	60	14	73
D-VB-E-6-2	240-54270-17	67	61	63	71	8 X	81
D-DUP03-081215	240-54270-18	55	55	56	60	15	73
	MB 240-193298/23-A	67	71	62	67	33	85
	MB 240-193424/10-A	45	50	42	47	11	50
	LCS 240-193298/24-A	63	65	65	63	57	83
	LCS 240-193424/11-A	67	69	60	63	22	67

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		218581	6.11	923296	7.23	508825	8.73
240-54270-12	D-VB-C-3-2	224727	6.11	993936	7.23	553253	8.73
MB 240-193424/10-A		261862	6.11	1132843	7.23	617978	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		825964	9.99	868728	12.62	738287	14.77
240-54270-12	D-VB-C-3-2	926757	9.99	912790	12.62	708401	14.77
MB 240-193424/10-A		1058567	9.99	1066056	12.62	885805	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-193684/2 CCVIS		111426	6.21	425313	7.33	245132	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-193684/2 CCVIS		414265	10.09	461133	12.34	417895	13.98

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193684/2 Date Analyzed: 08/18/2015 07:47

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		111426	6.21	425313	7.33	245132	8.83
UPPER LIMIT		222852	6.71	850626	7.83	490264	9.33
LOWER LIMIT		55713	5.71	212657	6.83	122566	8.33
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193298/23-A		92500	6.21	371860	7.32	216710	8.83
LCS 240-193298/24-A		89327	6.21	337078	7.33	201703	8.83
240-54270-11	D-VB-C-2-2	99793	6.21	374450	7.33	215812	8.83
240-54270-13	D-VB-C-4-2	99520	6.20	383489	7.33	221766	8.83
240-54270-16	D-VB-E-3-2	94801	6.21	357789	7.33	209107	8.83
240-54270-18	D-DUP03-081215	97897	6.21	375665	7.33	221179	8.83
240-54270-10	D-VB-C-1-2	97389	6.21	372220	7.33	219883	8.82
240-54270-14	D-DUP02-081215	96052	6.21	365842	7.32	220758	8.82
240-54270-6	D-VS-C-1-1	90356	6.21	356533	7.33	215202	8.83
240-54270-9	D-VS-C-4-1	100585	6.21	369552	7.32	216311	8.83
240-54270-1	D-VS-A-1-1	99894	6.21	388172	7.33	231772	8.83
240-54270-4	D-VB-A-1-2	102452	6.21	381679	7.32	222285	8.83
240-54270-8	D-VS-C-3-1	99909	6.21	388154	7.33	235175	8.83
240-54270-15	D-VS-E-2-1	103329	6.21	396519	7.32	229144	8.82
240-54270-2	D-VS-A-3-1	98662	6.21	372964	7.32	226013	8.82
240-54270-3	D-VS-A-4-1	101717	6.21	406771	7.32	240750	8.82
240-54270-5	D-VB-A-3-2	104419	6.21	392833	7.33	238950	8.82
240-54270-7	D-VS-C-2-1	106070	6.21	399171	7.33	238503	8.83
240-54270-17	D-VB-E-6-2	100010	6.21	380548	7.32	225138	8.82

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54270-1

SDG No.:

Sample No.: CCV 240-193684/2 Date Analyzed: 08/18/2015 07:47

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		414265	10.09	461133	12.34	417895	13.98
UPPER LIMIT		828530	10.59	922266	12.84	835790	14.48
LOWER LIMIT		207133	9.59	230567	11.84	208948	13.48
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193298/23-A		365062	10.09	407753	12.34	350703	13.97
LCS 240-193298/24-A		339978	10.09	380871	12.34	340006	13.97
240-54270-11	D-VB-C-2-2	366487	10.09	405946	12.34	316906	13.97
240-54270-13	D-VB-C-4-2	377049	10.09	422317	12.34	360010	13.98
240-54270-16	D-VB-E-3-2	364096	10.09	403667	12.34	342965	13.97
240-54270-18	D-DUP03-081215	354017	10.09	409409	12.34	351109	13.97
240-54270-10	D-VB-C-1-2	366722	10.09	415106	12.34	376095	13.97
240-54270-14	D-DUP02-081215	367278	10.09	414900	12.34	376883	13.97
240-54270-6	D-VS-C-1-1	359890	10.09	400744	12.34	378577	13.98
240-54270-9	D-VS-C-4-1	370752	10.08	425658	12.34	400831	13.98
240-54270-1	D-VS-A-1-1	395406	10.09	448176	12.34	414651	13.98
240-54270-4	D-VB-A-1-2	381267	10.08	424666	12.34	414448	13.98
240-54270-8	D-VS-C-3-1	385458	10.09	446645	12.34	415541	13.98
240-54270-15	D-VS-E-2-1	394756	10.08	453735	12.34	443513	13.97
240-54270-2	D-VS-A-3-1	378067	10.09	432853	12.34	419252	13.98
240-54270-3	D-VS-A-4-1	406793	10.08	463627	12.34	448876	13.98
240-54270-5	D-VB-A-3-2	397173	10.09	460972	12.34	438856	13.98
240-54270-7	D-VS-C-2-1	394538	10.09	446989	12.34	436704	13.98
240-54270-17	D-VB-E-6-2	386730	10.09	444368	12.34	429218	13.97

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 20, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54331-1

SAMPLES: 7 / Soil / PAHs

D-VB-E-1-2	D-VB-E-2-2	D-VB-E-4-2
D-VB-E-5-2	D-VS-E-1-1	D-VS-E-3-1
D-VS-E-4-1		

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54331-1, consists of seven (7) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). No field duplicate pair is included in this SDG.

The samples were collected by Tetra Tech on August 13, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

The following samples were analyzed at dilution factors greater than 1:

Sample	Dilution Factor
D-VB-E-4-2	2
D-VS-E-1-1	2.5
D-VS-E-3-1	4.5

The surrogate 2,4,6-tribromophenol had a percent recovery (%R) that was less than the laboratory quality control range for D-VB-E-4-2. No action was necessary, as none of the target analytes are associated with the acid surrogate 2,4,6-tribromophenol.

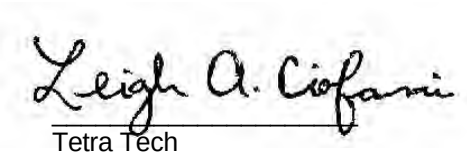
Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

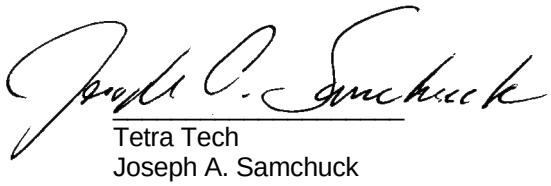
Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-VB-E-1-2			D-VB-E-2-2			D-VB-E-4-2			D-VB-E-5-2		
SDG: 240-54331-1	LAB_ID	240-54331-4			240-54331-5			240-54331-6			240-54331-7		
FRACTION: PAH	SAMP_DATE	8/13/2015			8/13/2015			8/13/2015			8/13/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.6			85.5			85.1			84.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		5.8	J	P	0.89	U		120			0.9	U	
ACENAPHTHYLENE		0.41	U		0.41	U		12	J	P	0.42	U	
ANTHRACENE		7.5	J	P	0.92	U		240			0.93	U	
BENZO(A)ANTHRACENE		21			5.1	J	P	880			0.75	U	
BENZO(A)PYRENE		19			5.4	J	P	890			0.76	U	
BENZO(B)FLUORANTHENE		25			8			1200			0.7	U	
BENZO(G,H,I)PERYLENE		12			4.9	J	P	560			0.42	U	
BENZO(K)FLUORANTHENE		11			0.8	U		440			0.81	U	
CHRYSENE		21			6.9	J	P	950			1.3	U	
DIBENZO(A,H)ANTHRACENE		0.78	U		0.78	U		190			0.79	U	
FLUORANTHENE		41			8.6			1600			0.65	U	
FLUORENE		0.63	U		0.62	U		95			0.63	U	
INDENO(1,2,3-CD)PYRENE		11			5.3	J	P	500			0.42	U	
NAPHTHALENE		0.97	U		0.96	U		15	J	P	0.98	U	
PHENANTHRENE		29			6	J	P	920			0.87	U	
PYRENE		35			7.6	J	P	1400			0.52	U	

PROJ_NO: 07483	NSAMPLE	D-VS-E-1-1			D-VS-E-3-1			D-VS-E-4-1		
SDG: 240-54331-1	LAB_ID	240-54331-1			240-54331-2			240-54331-3		
FRACTION: PAH	SAMP_DATE	8/13/2015			8/13/2015			8/13/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.2			88.3			88.4		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		140			130			7.2	J	P
ACENAPHTHYLENE		27			41			9.9		
ANTHRACENE		300			360			22		
BENZO(A)ANTHRACENE		880			1700			140		
BENZO(A)PYRENE		900			2000			180		
BENZO(B)FLUORANTHENE		1300			2400			230		
BENZO(G,H,I)PERYLENE		550			1100			150		
BENZO(K)FLUORANTHENE		420			1000			99		
CHRYSENE		1000			1900			160		
DIBENZO(A,H)ANTHRACENE		190			400			37		
FLUORANTHENE		1800			3000			200		
FLUORENE		130			96			6.7	J	P
INDENO(1,2,3-CD)PYRENE		510			1000			130		
NAPHTHALENE		66			15	J	P	7.7		
PHENANTHRENE		1100			1200			100		
PYRENE		1600			2700			210		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-1-2 | Lab Sample ID: 240-54331-4

Matrix: Solid | Lab File ID: 50818009.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:15

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 17:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.8	J	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	7.5	J	7.9	0.92
56-55-3	Benzo[a]anthracene	21		7.9	0.74
50-32-8	Benzo[a]pyrene	19		7.9	0.76
205-99-2	Benzo[b]fluoranthene	25		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	12		7.9	0.41
207-08-9	Benzo[k]fluoranthene	11		7.9	0.80
218-01-9	Chrysene	21		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	41		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	11		7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	29		7.9	0.86
129-00-0	Pyrene	35		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	46		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	46		24-110
321-60-8	2-Fluorobiphenyl (Surr)	43		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	12		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-2-2 | Lab Sample ID: 240-54331-5

Matrix: Solid | Lab File ID: 50818010.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:20

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.83(g) | Date Analyzed: 08/18/2015 17:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.92	U	7.8	0.92
56-55-3	Benzo[a]anthracene	5.1	J	7.8	0.74
50-32-8	Benzo[a]pyrene	5.4	J	7.8	0.75
205-99-2	Benzo[b]fluoranthene	8.0		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	4.9	J	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.80	U	7.8	0.80
218-01-9	Chrysene	6.9	J	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.8	0.78
206-44-0	Fluoranthene	8.6		7.8	0.65
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	5.3	J	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	6.0	J	7.8	0.86
129-00-0	Pyrene	7.6	J	7.8	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	45		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	36		20-110
367-12-4	2-Fluorophenol (Surr)	41		24-110
321-60-8	2-Fluorobiphenyl (Surr)	44		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-4-2 | Lab Sample ID: 240-54331-6

Matrix: Solid | Lab File ID: 50818012.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:25

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.57(g) | Date Analyzed: 08/18/2015 18:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	120		16	1.8
208-96-8	Acenaphthylene	12	J	16	0.83
120-12-7	Anthracene	240		16	1.9
56-55-3	Benzo[a]anthracene	880		16	1.5
50-32-8	Benzo[a]pyrene	890		16	1.5
205-99-2	Benzo[b]fluoranthene	1200		16	1.4
191-24-2	Benzo[g,h,i]perylene	560		16	0.83
207-08-9	Benzo[k]fluoranthene	440		16	1.6
218-01-9	Chrysene	950		16	2.6
53-70-3	Dibenz(a,h)anthracene	190		16	1.6
206-44-0	Fluoranthene	1600		16	1.3
86-73-7	Fluorene	95		16	1.3
193-39-5	Indeno[1,2,3-cd]pyrene	500		16	0.83
91-20-3	Naphthalene	15	J	16	2.0
85-01-8	Phenanthrene	920		16	1.7
129-00-0	Pyrene	1400		16	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	54		36-110
4165-62-2	Phenol-d5 (Surr)	49		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	38		20-110
367-12-4	2-Fluorophenol (Surr)	44		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	7	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VB-E-5-2 | Lab Sample ID: 240-54331-7

Matrix: Solid | Lab File ID: 50818006.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.73(g) | Date Analyzed: 08/18/2015 14:59

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	0.70	U	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.42	U	7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	1.3	U	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	7.9	0.79
206-44-0	Fluoranthene	0.65	U	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	7.9	0.42
91-20-3	Naphthalene	0.98	U	7.9	0.98
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	0.52	U	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	54		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		20-110
367-12-4	2-Fluorophenol (Surr)	52		24-110
321-60-8	2-Fluorobiphenyl (Surr)	49		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-1-1 | Lab Sample ID: 240-54331-1

Matrix: Solid | Lab File ID: 50818013.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:00

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.02(g) | Date Analyzed: 08/18/2015 18:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	140		19	2.2
208-96-8	Acenaphthylene	27		19	1.0
120-12-7	Anthracene	300		19	2.2
56-55-3	Benzo[a]anthracene	880		19	1.8
50-32-8	Benzo[a]pyrene	900		19	1.8
205-99-2	Benzo[b]fluoranthene	1300		19	1.7
191-24-2	Benzo[g,h,i]perylene	550		19	1.0
207-08-9	Benzo[k]fluoranthene	420		19	1.9
218-01-9	Chrysene	1000		19	3.2
53-70-3	Dibenz(a,h)anthracene	190		19	1.9
206-44-0	Fluoranthene	1800		19	1.6
86-73-7	Fluorene	130		19	1.5
193-39-5	Indeno[1,2,3-cd]pyrene	510		19	1.0
91-20-3	Naphthalene	66		19	2.3
85-01-8	Phenanthrene	1100		19	2.1
129-00-0	Pyrene	1600		19	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		36-110
4165-62-2	Phenol-d5 (Surr)	55		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		20-110
367-12-4	2-Fluorophenol (Surr)	53		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	10		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-3-1 | Lab Sample ID: 240-54331-2

Matrix: Solid | Lab File ID: 50818014.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:05

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30.17(g) | Date Analyzed: 08/18/2015 19:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	130		30	3.4
208-96-8	Acenaphthylene	41		30	1.6
120-12-7	Anthracene	360		30	3.5
56-55-3	Benzo[a]anthracene	1700		30	2.8
50-32-8	Benzo[a]pyrene	2000		30	2.9
205-99-2	Benzo[b]fluoranthene	2400		30	2.7
191-24-2	Benzo[g,h,i]perylene	1100		30	1.6
207-08-9	Benzo[k]fluoranthene	1000		30	3.1
218-01-9	Chrysene	1900		30	5.0
53-70-3	Dibenz(a,h)anthracene	400		30	3.0
206-44-0	Fluoranthene	3000		30	2.5
86-73-7	Fluorene	96		30	2.4
193-39-5	Indeno[1,2,3-cd]pyrene	1000		30	1.6
91-20-3	Naphthalene	15	J	30	3.7
85-01-8	Phenanthrene	1200		30	3.3
129-00-0	Pyrene	2700		30	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	60		36-110
4165-62-2	Phenol-d5 (Surr)	53		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	47		24-110
321-60-8	2-Fluorobiphenyl (Surr)	53		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	20		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: D-VS-E-4-1 | Lab Sample ID: 240-54331-3

Matrix: Solid | Lab File ID: 50818011.D

Analysis Method: 8270D | Date Collected: 08/13/2015 09:10

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 29.66(g) | Date Analyzed: 08/18/2015 17:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.2	J	7.6	0.87
208-96-8	Acenaphthylene	9.9		7.6	0.40
120-12-7	Anthracene	22		7.6	0.89
56-55-3	Benzo[a]anthracene	140		7.6	0.72
50-32-8	Benzo[a]pyrene	180		7.6	0.73
205-99-2	Benzo[b]fluoranthene	230		7.6	0.68
191-24-2	Benzo[g,h,i]perylene	150		7.6	0.40
207-08-9	Benzo[k]fluoranthene	99		7.6	0.78
218-01-9	Chrysene	160		7.6	1.3
53-70-3	Dibenz(a,h)anthracene	37		7.6	0.76
206-44-0	Fluoranthene	200		7.6	0.63
86-73-7	Fluorene	6.7	J	7.6	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	130		7.6	0.40
91-20-3	Naphthalene	7.7		7.6	0.94
85-01-8	Phenanthrene	100		7.6	0.84
129-00-0	Pyrene	210		7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	45		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	10		10-110

APPENDIX C

SUPPORT DOCUMENTATION

0.8/C1.8

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
117IC07483	MRC SOIL REMEDY Block D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAH (8270D)	REMARKS
MRC	8/13	0900	X		D-VS-E-1-1	1	X	☆ ALL SAMPLES GO TO
		0905	X		D-VS-E-3-1		X	TESTAMERICA. NORTH CANTON ☆
		0910	X		D-VS-E-4-1		X	☆ 3 DAY TAT ☆
		0915		X	D-VB-E-1-2		X	☆ P.M: SCOTT NESBIT ☆
		0920		X	D-VB-E-2-2		X	
		0925		X	D-VB-E-4-2		X	
		0930		X	D-VB-E-5-2		X	

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15 1630				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/13/15 1700	8-14-15 920			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA E	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 41337**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 8-14-15 Opened on 8-14-15

FedEx: 1st Grd ~~ESP~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +**1.0** °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF **-1.5** °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54331-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/14/2015 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6) and D-VB-E-5-2 (240-54331-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/15/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-E-4-2 (240-54331-6).

Samples D-VS-E-1-1 (240-54331-1)[2.5X], D-VS-E-3-1 (240-54331-2)[4X] and D-VB-E-4-2 (240-54331-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693 associated with samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6), D-VB-E-5-2 (240-54331-7), (240-54331-B-7-B MS) and (240-54331-B-7-C MSD). However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-E-1-1 (240-54331-1), D-VS-E-3-1 (240-54331-2), D-VS-E-4-1 (240-54331-3), D-VB-E-1-2 (240-54331-4), D-VB-E-2-2 (240-54331-5), D-VB-E-4-2 (240-54331-6) and D-VB-E-5-2 (240-54331-7) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54331-1	D-VS-E-1-1	Solid	08/13/2015 0900	08/14/2015 0920
240-54331-2	D-VS-E-3-1	Solid	08/13/2015 0905	08/14/2015 0920
240-54331-3	D-VS-E-4-1	Solid	08/13/2015 0910	08/14/2015 0920
240-54331-4	D-VB-E-1-2	Solid	08/13/2015 0915	08/14/2015 0920
240-54331-5	D-VB-E-2-2	Solid	08/13/2015 0920	08/14/2015 0920
240-54331-6	D-VB-E-4-2	Solid	08/13/2015 0925	08/14/2015 0920
240-54331-7	D-VB-E-5-2	Solid	08/13/2015 0930	08/14/2015 0920

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54331-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54331-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	LCS 240-193424/11-A	50818004.D	08/18/2015	13:46
	MB 240-193424/10-A	50818017.D	08/18/2015	14:34
D-VB-E-5-2	240-54331-7	50818006.D	08/18/2015	14:59
D-VB-E-5-2 MS	240-54331-7 MS	50818007.D	08/18/2015	15:23
D-VB-E-5-2 MSD	240-54331-7 MSD	50818008.D	08/18/2015	15:47
D-VB-E-1-2	240-54331-4	50818009.D	08/18/2015	17:00
D-VB-E-2-2	240-54331-5	50818010.D	08/18/2015	17:24
D-VS-E-4-1	240-54331-3	50818011.D	08/18/2015	17:48
D-VB-E-4-2	240-54331-6	50818012.D	08/18/2015	18:13
D-VS-E-1-1	240-54331-1	50818013.D	08/18/2015	18:37
D-VS-E-3-1	240-54331-2	50818014.D	08/18/2015	19:01

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Lab File ID: 50818017.D Lab Sample ID: MB 240-193424/10-A

Matrix: Solid Date Extracted: 08/15/2015 10:20

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 14:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193424/11-A	50818004.D	08/18/2015 13:46
D-VB-E-5-2	240-54331-7	50818006.D	08/18/2015 14:59
D-VB-E-5-2 MS	240-54331-7 MS	50818007.D	08/18/2015 15:23
D-VB-E-5-2 MSD	240-54331-7 MSD	50818008.D	08/18/2015 15:47
D-VB-E-1-2	240-54331-4	50818009.D	08/18/2015 17:00
D-VB-E-2-2	240-54331-5	50818010.D	08/18/2015 17:24
D-VS-E-4-1	240-54331-3	50818011.D	08/18/2015 17:48
D-VB-E-4-2	240-54331-6	50818012.D	08/18/2015 18:13
D-VS-E-1-1	240-54331-1	50818013.D	08/18/2015 18:37
D-VS-E-3-1	240-54331-2	50818014.D	08/18/2015 19:01

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54331-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193424/10-A

Matrix: Solid | Lab File ID: 50818017.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/15/2015 10:20

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 14:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	42		20-110
367-12-4	2-Fluorophenol (Surr)	45		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818004.D

Lab ID: LCS 240-193424/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	412	62	38-110	
Acenaphthylene	667	420	63	40-110	
Anthracene	667	439	66	48-110	
Benzo[a]anthracene	667	432	65	50-110	
Benzo[a]pyrene	667	458	69	44-110	
Benzo[b]fluoranthene	667	446	67	43-110	
Benzo[g,h,i]perylene	667	491	74	51-110	
Benzo[k]fluoranthene	667	437	66	38-105	
Chrysene	667	466	70	50-110	
Dibenz(a,h)anthracene	667	517	78	51-110	
Fluoranthene	667	444	67	51-110	
Fluorene	667	401	60	46-110	
Indeno[1,2,3-cd]pyrene	667	526	79	50-110	
Naphthalene	667	421	63	36-110	
Phenanthrene	667	430	65	49-110	
Pyrene	667	428	64	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818007.D

Lab ID: 240-54331-7 MS Client ID: D-VB-E-5-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	780	0.90 U	374	48	22-110	
Acenaphthylene	780	0.42 U	373	48	24-110	
Anthracene	780	0.93 U	401	51	20-110	
Benzo[a]anthracene	780	0.75 U	415	53	10-122	
Benzo[a]pyrene	780	0.76 U	424	54	10-110	
Benzo[b]fluoranthene	780	0.70 U	435	56	12-118	
Benzo[g,h,i]perylene	780	0.42 U	467	60	10-117	
Benzo[k]fluoranthene	780	0.81 U	406	52	10-121	
Chrysene	780	1.3 U	430	55	10-125	
Dibenz(a,h)anthracene	780	0.79 U	491	63	14-113	
Fluoranthene	780	0.65 U	394	50	10-110	
Fluorene	780	0.63 U	379	49	23-110	
Indeno[1,2,3-cd]pyrene	780	0.42 U	485	62	10-114	
Naphthalene	780	0.98 U	353	45	10-111	
Phenanthrene	780	0.87 U	393	50	10-166	
Pyrene	780	0.52 U	413	53	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818008.D

Lab ID: 240-54331-7 MSD Client ID: D-VB-E-5-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	785	404	51	8	99	22-110	
Acenaphthylene	785	410	52	9	99	24-110	
Anthracene	785	455	58	13	99	20-110	
Benzo[a]anthracene	785	466	59	12	99	10-122	
Benzo[a]pyrene	785	489	62	14	99	10-110	
Benzo[b]fluoranthene	785	484	62	11	99	12-118	
Benzo[g,h,i]perylene	785	538	69	14	99	10-117	
Benzo[k]fluoranthene	785	454	58	11	99	10-121	
Chrysene	785	490	62	13	99	10-125	
Dibenz(a,h)anthracene	785	556	71	12	99	14-113	
Fluoranthene	785	455	58	15	99	10-110	
Fluorene	785	414	53	9	99	23-110	
Indeno[1,2,3-cd]pyrene	785	552	70	13	99	10-114	
Naphthalene	785	352	45	0	99	10-111	
Phenanthrene	785	449	57	13	99	10-166	
Pyrene	785	464	59	12	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-E-1-1	240-54331-1	53	55	45	53	10	58
D-VS-E-3-1	240-54331-2	47	53	41	53	20	60
D-VS-E-4-1	240-54331-3	45	45	41	48	10	51
D-VB-E-1-2	240-54331-4	46	46	40	43	12	51
D-VB-E-2-2	240-54331-5	41	45	36	44	13	50
D-VB-E-4-2	240-54331-6	44	49	38	47	7 X	54
D-VB-E-5-2	240-54331-7	52	54	44	49	15	55
	MB 240-193424/10-A	45	50	42	47	11	50
	LCS 240-193424/11-A	67	69	60	63	22	67
D-VB-E-5-2 MS	240-54331-7 MS	49	53	43	48	25	55
D-VB-E-5-2 MSD	240-54331-7 MSD	49	51	40	49	26	59

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		218581	6.11	923296	7.23	508825	8.73
MB 240-193424/10-A		261862	6.11	1132843	7.23	617978	8.73
240-54331-7	D-VB-E-5-2	234558	6.11	1021038	7.23	565234	8.73
240-54331-7 MS	D-VB-E-5-2 MS	224841	6.11	1011830	7.23	550681	8.73
240-54331-7 MSD	D-VB-E-5-2 MSD	238933	6.11	1038896	7.23	558166	8.73
240-54331-4	D-VB-E-1-2	276771	6.11	1155224	7.23	637288	8.73
240-54331-5	D-VB-E-2-2	261789	6.11	1095290	7.23	598732	8.73
240-54331-3	D-VS-E-4-1	265827	6.11	1120088	7.23	607270	8.73
240-54331-6	D-VB-E-4-2	267233	6.11	1161979	7.23	641402	8.73
240-54331-1	D-VS-E-1-1	274817	6.11	1162834	7.23	639254	8.73
240-54331-2	D-VS-E-3-1	280142	6.11	1187877	7.23	650166	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54331-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-193424/11-A		825964	9.99	868728	12.62	738287	14.77
MB 240-193424/10-A		1058567	9.99	1066056	12.62	885805	14.77
240-54331-7	D-VB-E-5-2	944387	9.99	938098	12.62	754063	14.77
240-54331-7 MS	D-VB-E-5-2 MS	902825	9.99	883687	12.62	756388	14.77
240-54331-7 MSD	D-VB-E-5-2 MSD	922634	9.99	919509	12.62	795149	14.77
240-54331-4	D-VB-E-1-2	1072455	9.99	1061598	12.62	861364	14.77
240-54331-5	D-VB-E-2-2	1009335	9.99	1013985	12.62	789631	14.77
240-54331-3	D-VS-E-4-1	1034196	9.99	1054920	12.62	890356	14.77
240-54331-6	D-VB-E-4-2	1051260	9.99	1056247	12.63	916355	14.78
240-54331-1	D-VS-E-1-1	1039036	9.99	1072722	12.63	929542	14.78
240-54331-2	D-VS-E-3-1	1074942	9.99	1095879	12.63	930906	14.78

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 24, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54373-1

SAMPLES: 9 / Soil / PAHs

D-DUP04-081415	D-VB-F-11-2	D-VB-F-12-2
D-VB-F-16-2	D-VB-F-17-2	D-VB-F-18-2
D-VB-F-21-3	D-VB-F-22-2	D-VB-F-6-2

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54373-1, consists of nine (9) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). One (1) field duplicate pair is included in this SDG: D-VB-F-21-3 (original) / D-DUP04-081415 (duplicate).

The samples were collected by Tetra Tech on August 14, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- In the field duplicate pair samples D-VB-F-21-3 / D-DUP04-081415, the difference exceeded 2x the reporting limit (RL) for fluoranthene and pyrene. Detected and non-detected results for these analytes were qualified as estimated (J and UJ, respectively) in the field duplicate pair samples D-VB-F-21-3 and D-DUP04-081415.

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

The surrogate 2,4,6-tribromophenol percent recoveries (%Rs) were less than the laboratory quality control range for D-VB-F-11-2, D-VB-F-12-2, D-VB-F-16-2, D-VB-F-17-2, and D-VB-F-18-2. No action was necessary, as none of the target analytes are associated with the acid surrogate 2,4,6-tribromophenol.

Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Several detected and non-detected results were qualified for field duplicate imprecision. Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP04-081415			D-VB-F-11-2			D-VB-F-12-2			D-VB-F-16-2		
SDG: 240-54373-1	LAB_ID	240-54373-9			240-54373-2			240-54373-3			240-54373-4		
FRACTION: PAH	SAMP_DATE	8/14/2015			8/14/2015			8/14/2015			8/14/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.5			92.1			90.7			87.5		
	DUP_OF	D-VB-F-21-3											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.94	U		0.82	U		59			0.86	U	
ACENAPHTHYLENE		0.43	U		0.38	U		7.2	J	P	0.4	U	
ANTHRACENE		0.96	U		0.84	U		90			0.88	U	
BENZO(A)ANTHRACENE		9.6			13			210			0.71	U	
BENZO(A)PYRENE		7	J	P	15			210			0.72	U	
BENZO(B)FLUORANTHENE		12			26			280			0.67	U	
BENZO(G,H,I)PERYLENE		0.43	U		11			92			0.4	U	
BENZO(K)FLUORANTHENE		4.3	J	P	6.2	J	P	110			0.77	U	
CHRYSENE		8	J	P	20			230			1.2	U	
DIBENZO(A,H)ANTHRACENE		0.82	U		0.71	U		34			0.75	U	
FLUORANTHENE		21	J	G	22			440			0.62	U	
FLUORENE		0.65	U		0.57	U		37			0.6	U	
INDENO(1,2,3-CD)PYRENE		0.43	U		10			100			0.4	U	
NAPHTHALENE		1	U		4.4	J	P	17			0.93	U	
PHENANTHRENE		5.8	J	P	11			330			0.83	U	
PYRENE		18	J	G	24			370			0.5	U	

PROJ_NO: 07483	NSAMPLE	D-VB-F-17-2			D-VB-F-18-2			D-VB-F-21-3			D-VB-F-22-2		
SDG: 240-54373-1	LAB_ID	240-54373-5			240-54373-6			240-54373-7			240-54373-8		
FRACTION: PAH	SAMP_DATE	8/14/2015			8/14/2015			8/14/2015			8/14/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			80.8			81.1			82.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		6.8	J	P	0.93	U		0.91	U	
ACENAPHTHYLENE		0.41	U		0.43	U		0.43	U		9.6		
ANTHRACENE		0.9	U		20			0.96	U		44		
BENZO(A)ANTHRACENE		16			110			0.77	U		170		
BENZO(A)PYRENE		13			88			0.78	U		250		
BENZO(B)FLUORANTHENE		21			130			0.72	U		300		
BENZO(G,H,I)PERYLENE		6.6	J	P	52			0.43	U		110		
BENZO(K)FLUORANTHENE		8.9			59			0.83	U		140		
CHRYSENE		18			120			1.3	U		340		
DIBENZO(A,H)ANTHRACENE		0.77	U		16			0.81	U		32		
FLUORANTHENE		36			260			0.67	UJ	G	160		
FLUORENE		0.61	U		6.3	J	P	0.65	U		5.2	J	P
INDENO(1,2,3-CD)PYRENE		6.6	J	P	46			0.43	U		100		
NAPHTHALENE		0.95	U		5.8	J	P	1	U		16		
PHENANTHRENE		14			120			0.89	U		45		
PYRENE		30			210			0.54	UJ	G	160		

PROJ_NO: 07483	NSAMPLE	D-VB-F-6-2		
SDG: 240-54373-1	LAB_ID	240-54373-1		
FRACTION: PAH	SAMP_DATE	8/14/2015		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	83.1		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ACENAPHTHENE		0.91	U	
ACENAPHTHYLENE		0.42	U	
ANTHRACENE		0.94	U	
BENZO(A)ANTHRACENE		0.76	U	
BENZO(A)PYRENE		0.77	U	
BENZO(B)FLUORANTHENE		0.71	U	
BENZO(G,H,I)PERYLENE		0.42	U	
BENZO(K)FLUORANTHENE		0.82	U	
CHRYSENE		1.3	U	
DIBENZO(A,H)ANTHRACENE		0.79	U	
FLUORANTHENE		0.66	U	
FLUORENE		0.64	U	
INDENO(1,2,3-CD)PYRENE		0.42	U	
NAPHTHALENE		0.99	U	
PHENANTHRENE		0.88	U	
PYRENE		0.53	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-DUP04-081415 | Lab Sample ID: 240-54373-9

Matrix: Solid | Lab File ID: 50818028.D

Analysis Method: 8270D | Date Collected: 08/14/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 29.79(g) | Date Analyzed: 08/18/2015 23:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.94	U	8.2	0.94
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.96	U	8.2	0.96
56-55-3	Benzo[a]anthracene	9.6		8.2	0.78
50-32-8	Benzo[a]pyrene	7.0	J	8.2	0.79
205-99-2	Benzo[b]fluoranthene	12		8.2	0.73
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	4.3	J	8.2	0.84
218-01-9	Chrysene	8.0	J	8.2	1.4
53-70-3	Dibenz(a,h)anthracene	0.82	U	8.2	0.82
206-44-0	Fluoranthene	21		8.2	0.68
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	5.8	J	8.2	0.90
129-00-0	Pyrene	18		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		36-110
4165-62-2	Phenol-d5 (Surr)	60		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	55		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-11-2 | Lab Sample ID: 240-54373-2

Matrix: Solid | Lab File ID: 50818021.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:42

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.28(g) | Date Analyzed: 08/18/2015 20:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.82	U	7.2	0.82
208-96-8	Acenaphthylene	0.38	U	7.2	0.38
120-12-7	Anthracene	0.84	U	7.2	0.84
56-55-3	Benzo[a]anthracene	13		7.2	0.68
50-32-8	Benzo[a]pyrene	15		7.2	0.69
205-99-2	Benzo[b]fluoranthene	26		7.2	0.63
191-24-2	Benzo[g,h,i]perylene	11		7.2	0.38
207-08-9	Benzo[k]fluoranthene	6.2	J	7.2	0.73
218-01-9	Chrysene	20		7.2	1.2
53-70-3	Dibenz(a,h)anthracene	0.71	U	7.2	0.71
206-44-0	Fluoranthene	22		7.2	0.59
86-73-7	Fluorene	0.57	U	7.2	0.57
193-39-5	Indeno[1,2,3-cd]pyrene	10		7.2	0.38
91-20-3	Naphthalene	4.4	J	7.2	0.88
85-01-8	Phenanthrene	11		7.2	0.79
129-00-0	Pyrene	24		7.2	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	49		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		20-110
367-12-4	2-Fluorophenol (Surr)	48		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	5	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-12-2 | Lab Sample ID: 240-54373-3

Matrix: Solid | Lab File ID: 50818022.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:44

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.21(g) | Date Analyzed: 08/18/2015 21:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	59		7.3	0.83
208-96-8	Acenaphthylene	7.2	J	7.3	0.38
120-12-7	Anthracene	90		7.3	0.85
56-55-3	Benzo[a]anthracene	210		7.3	0.69
50-32-8	Benzo[a]pyrene	210		7.3	0.70
205-99-2	Benzo[b]fluoranthene	280		7.3	0.65
191-24-2	Benzo[g,h,i]perylene	92		7.3	0.38
207-08-9	Benzo[k]fluoranthene	110		7.3	0.74
218-01-9	Chrysene	230		7.3	1.2
53-70-3	Dibenz(a,h)anthracene	34		7.3	0.72
206-44-0	Fluoranthene	440		7.3	0.60
86-73-7	Fluorene	37		7.3	0.58
193-39-5	Indeno[1,2,3-cd]pyrene	100		7.3	0.38
91-20-3	Naphthalene	17		7.3	0.90
85-01-8	Phenanthrene	330		7.3	0.80
129-00-0	Pyrene	370		7.3	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	43		36-110
4165-62-2	Phenol-d5 (Surr)	43		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	34		20-110
367-12-4	2-Fluorophenol (Surr)	41		24-110
321-60-8	2-Fluorobiphenyl (Surr)	43		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	4	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-16-2 | Lab Sample ID: 240-54373-4

Matrix: Solid | Lab File ID: 50818023.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:46

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.27(g) | Date Analyzed: 08/18/2015 21:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.86	U	7.6	0.86
208-96-8	Acenaphthylene	0.40	U	7.6	0.40
120-12-7	Anthracene	0.88	U	7.6	0.88
56-55-3	Benzo[a]anthracene	0.71	U	7.6	0.71
50-32-8	Benzo[a]pyrene	0.72	U	7.6	0.72
205-99-2	Benzo[b]fluoranthene	0.67	U	7.6	0.67
191-24-2	Benzo[g,h,i]perylene	0.40	U	7.6	0.40
207-08-9	Benzo[k]fluoranthene	0.77	U	7.6	0.77
218-01-9	Chrysene	1.2	U	7.6	1.2
53-70-3	Dibenz(a,h)anthracene	0.75	U	7.6	0.75
206-44-0	Fluoranthene	0.62	U	7.6	0.62
86-73-7	Fluorene	0.60	U	7.6	0.60
193-39-5	Indeno[1,2,3-cd]pyrene	0.40	U	7.6	0.40
91-20-3	Naphthalene	0.93	U	7.6	0.93
85-01-8	Phenanthrene	0.83	U	7.6	0.83
129-00-0	Pyrene	0.50	U	7.6	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	52		36-110
4165-62-2	Phenol-d5 (Surr)	50		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-17-2 | Lab Sample ID: 240-54373-5

Matrix: Solid | Lab File ID: 50818024.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:48

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.02(g) | Date Analyzed: 08/18/2015 21:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.7	0.88
208-96-8	Acenaphthylene	0.41	U	7.7	0.41
120-12-7	Anthracene	0.90	U	7.7	0.90
56-55-3	Benzo[a]anthracene	16		7.7	0.73
50-32-8	Benzo[a]pyrene	13		7.7	0.74
205-99-2	Benzo[b]fluoranthene	21		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	6.6	J	7.7	0.41
207-08-9	Benzo[k]fluoranthene	8.9		7.7	0.79
218-01-9	Chrysene	18		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.7	0.77
206-44-0	Fluoranthene	36		7.7	0.64
86-73-7	Fluorene	0.61	U	7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	6.6	J	7.7	0.41
91-20-3	Naphthalene	0.95	U	7.7	0.95
85-01-8	Phenanthrene	14		7.7	0.85
129-00-0	Pyrene	30		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		20-110
367-12-4	2-Fluorophenol (Surr)	53		24-110
321-60-8	2-Fluorobiphenyl (Surr)	51		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	9	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-18-2 | Lab Sample ID: 240-54373-6

Matrix: Solid | Lab File ID: 50818025.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:50

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.24(g) | Date Analyzed: 08/18/2015 22:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	6.8	J	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	20		8.2	0.96
56-55-3	Benzo[a]anthracene	110		8.2	0.77
50-32-8	Benzo[a]pyrene	88		8.2	0.79
205-99-2	Benzo[b]fluoranthene	130		8.2	0.72
191-24-2	Benzo[g,h,i]perylene	52		8.2	0.43
207-08-9	Benzo[k]fluoranthene	59		8.2	0.83
218-01-9	Chrysene	120		8.2	1.4
53-70-3	Dibenz(a,h)anthracene	16		8.2	0.81
206-44-0	Fluoranthene	260		8.2	0.68
86-73-7	Fluorene	6.3	J	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	46		8.2	0.43
91-20-3	Naphthalene	5.8	J	8.2	1.0
85-01-8	Phenanthrene	120		8.2	0.90
129-00-0	Pyrene	210		8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	55		36-110
4165-62-2	Phenol-d5 (Surr)	57		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		20-110
367-12-4	2-Fluorophenol (Surr)	56		24-110
321-60-8	2-Fluorobiphenyl (Surr)	54		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	8	X	10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-21-3 | Lab Sample ID: 240-54373-7

Matrix: Solid | Lab File ID: 50818026.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:52

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.21(g) | Date Analyzed: 08/18/2015 22:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.2	0.93
208-96-8	Acenaphthylene	0.43	U	8.2	0.43
120-12-7	Anthracene	0.96	U	8.2	0.96
56-55-3	Benzo[a]anthracene	0.77	U	8.2	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.2	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.2	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.2	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.2	0.83
218-01-9	Chrysene	1.3	U	8.2	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.2	0.81
206-44-0	Fluoranthene	0.67	U	8.2	0.67
86-73-7	Fluorene	0.65	U	8.2	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.2	0.43
91-20-3	Naphthalene	1.0	U	8.2	1.0
85-01-8	Phenanthrene	0.89	U	8.2	0.89
129-00-0	Pyrene	0.54	U	8.2	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	48		36-110
4165-62-2	Phenol-d5 (Surr)	47		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	49		24-110
321-60-8	2-Fluorobiphenyl (Surr)	45		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	11		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-22-2 | Lab Sample ID: 240-54373-8

Matrix: Solid | Lab File ID: 50818027.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:54

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.25(g) | Date Analyzed: 08/18/2015 23:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	9.6		8.0	0.42
120-12-7	Anthracene	44		8.0	0.93
56-55-3	Benzo[a]anthracene	170		8.0	0.75
50-32-8	Benzo[a]pyrene	250		8.0	0.77
205-99-2	Benzo[b]fluoranthene	300		8.0	0.71
191-24-2	Benzo[g,h,i]perylene	110		8.0	0.42
207-08-9	Benzo[k]fluoranthene	140		8.0	0.81
218-01-9	Chrysene	340		8.0	1.3
53-70-3	Dibenz(a,h)anthracene	32		8.0	0.79
206-44-0	Fluoranthene	160		8.0	0.66
86-73-7	Fluorene	5.2	J	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	100		8.0	0.42
91-20-3	Naphthalene	16		8.0	0.98
85-01-8	Phenanthrene	45		8.0	0.87
129-00-0	Pyrene	160		8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	51		36-110
4165-62-2	Phenol-d5 (Surr)	51		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	43		20-110
367-12-4	2-Fluorophenol (Surr)	51		24-110
321-60-8	2-Fluorobiphenyl (Surr)	48		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: D-VB-F-6-2 | Lab Sample ID: 240-54373-1

Matrix: Solid | Lab File ID: 50818020.D

Analysis Method: 8270D | Date Collected: 08/14/2015 11:40

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30.03(g) | Date Analyzed: 08/18/2015 20:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.91	U	8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.94	U	8.0	0.94
56-55-3	Benzo[a]anthracene	0.76	U	8.0	0.76
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	0.71	U	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.0	0.82
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.64	U	8.0	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.99	U	8.0	0.99
85-01-8	Phenanthrene	0.88	U	8.0	0.88
129-00-0	Pyrene	0.53	U	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	50		36-110
4165-62-2	Phenol-d5 (Surr)	49		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	40		20-110
367-12-4	2-Fluorophenol (Surr)	47		24-110
321-60-8	2-Fluorobiphenyl (Surr)	47		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

APPENDIX C

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

1.8 | C28 #30

PROJECT NO.:	SITE NAME:
112IC07483	MRC SOIL REMEDY BLOCK D

SAMPLERS (SIGNATURE): JOSH MULLIS TETRA TECH

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CON-TAINERS	PAH (8270D)	REMARKS
MRC	8/14/15	1140		X	D-VB-F-6-2	1	X	# TESTAMERICA NORTH CANTON
		1142		X	D-VB-F-11-2		X	# SCOTT NESBIT P.M.
		1144		X	D-VB-F-12-2		X	# 3 DAY TAT #
		1146		X	D-VB-F-16-2		X	
		1148		X	D-VB-F-17-2		X	
		1150		X	D-VB-F-18-2		X	
		1152		X	D-VB-F-21-3		X	
		1154		X	D-VB-F-22-2		X	
		—		X	D-DUP04-081415		X	

8/14/15

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1600				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/14/15 1700	8/15/15 0945	—		
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREA F.	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 54373

Client Tetra Tech Site Name MRC ~~AMPE~~ Soil Remedy

Cooler unpacked by: Heather Wagoner

Cooler Received on 8/15/15 Opened on 8/15/15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   - IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 2.8 °C
   - ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~ ☐ See Multiple Cooler Form
   - ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   - IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   - -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   - -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC432654
12. Were VOAs on the COC? Yes (No)
13. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes (No)

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.

Time preserved: Preservative(s) added/Lot number(s):

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54373-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/15/2015 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/17/2015 and analyzed on 08/18/2015.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), and D-VB-F-18-2 (240-54373-6).

2,4,6-Tribromophenol ACID surrogate was out of control in continuing calibration batch 193693 associated with samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9). However, since only BN compounds were requested no corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VB-F-6-2 (240-54373-1), D-VB-F-11-2 (240-54373-2), D-VB-F-12-2 (240-54373-3), D-VB-F-16-2 (240-54373-4), D-VB-F-17-2 (240-54373-5), D-VB-F-18-2 (240-54373-6), D-VB-F-21-3 (240-54373-7), D-VB-F-22-2 (240-54373-8) and D-DUP04-081415 (240-54373-9) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54373-1	D-VB-F-6-2	Solid	08/14/2015 1140	08/15/2015 0940
240-54373-2	D-VB-F-11-2	Solid	08/14/2015 1142	08/15/2015 0940
240-54373-3	D-VB-F-12-2	Solid	08/14/2015 1144	08/15/2015 0940
240-54373-4	D-VB-F-16-2	Solid	08/14/2015 1146	08/15/2015 0940
240-54373-5	D-VB-F-17-2	Solid	08/14/2015 1148	08/15/2015 0940
240-54373-6	D-VB-F-18-2	Solid	08/14/2015 1150	08/15/2015 0940
240-54373-7	D-VB-F-21-3	Solid	08/14/2015 1152	08/15/2015 0940
240-54373-8	D-VB-F-22-2	Solid	08/14/2015 1154	08/15/2015 0940
240-54373-9	D-DUP04-081415	Solid	08/14/2015 0000	08/15/2015 0940

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54373-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

FIELD DUPLICATE PRECISION

ANALYTE	D-VB-F-21-3	QUAL	D-DUP04-081415	QUAL	RPD	DIFFERENCE	RL
BENZO(A)ANTHRACENE	0.77	U	9.6		~~170.30~~	8.83	8.2
BENZO(A)PYRENE	0.78	U	7	J	~~159.90~~	6.22	8.2
BENZO(B)FLUORANTHENE	0.72	U	12		~~177.36~~	11.28	8.2
BENZO(K)FLUORANTHENE	0.83	U	4.3	J	~~135.28~~	3.47	8.2
CHRYSENE	1.3	U	8	J	~~144.09~~	6.70	8.2
FLUORANTHENE	0.67	U	21		~~187.63~~	20.33	8.2
PHENANTHRENE	0.89	U	5.8	J	~~146.79~~	4.91	8.2
PYRENE	0.54	U	18		~~188.35~~	17.46	8.2

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50723001.D DFTPP Injection Date: 07/23/2015

Instrument ID: A4HP10 DFTPP Injection Time: 08:38

Analysis Batch No.: 190307

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.1	
68	Less than 2.0% of mass 69	0.3	(0.7)1
69	Mass 69 relative abundance	38.2	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.7	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	11.7	
442	40.0 - 110.0% of mass 198	75.7	
443	15.0 - 24.0% of mass 442	14.0	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-190307/2	50723002.D	07/23/2015	09:02
	STD8 240-190307/3	50723003.D	07/23/2015	09:26
	STD7 240-190307/4	50723004.D	07/23/2015	09:50
	STD6 240-190307/5	50723005.D	07/23/2015	10:14
	STD5 240-190307/6	50723006.D	07/23/2015	10:39
	STD4 240-190307/7	50723007.D	07/23/2015	11:03
	STD3 240-190307/8	50723008.D	07/23/2015	11:27
	STD2 240-190307/9	50723009.D	07/23/2015	11:51
	STD1 240-190307/10	50723010.D	07/23/2015	12:15
	ICV 240-190307/11	50723011.D	07/23/2015	12:40

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5748	0.5106 0.5856	0.5761 0.5811	0.4402 0.5841	0.5935	Ave		0.5557				9.6		20.0			
N-Nitrosodimethylamine	0.7745	0.7502 0.8105	0.8116 0.7692	0.7542 0.7959	0.7964	Ave		0.7828				3.1		20.0			
Pyridine	1.5142	1.3584 1.5511	1.3590 1.5018	1.5163 1.5228	1.5270	Ave		1.4813				5.2		20.0			
Benzaldehyde	1.2829	1.3956 1.2904	1.3973 1.2202	1.2686 1.2075	1.3230	Ave		1.2982			0.0100	5.5		20.0			
Phenol	1.9182	2.3052 1.9545	1.8943 1.8960	1.8855 1.9046	1.9550	Ave		1.9642			0.8000	7.1		20.0			
Aniline	2.4215	2.5868 2.5033	2.5253 2.4317	2.3223 2.4505	2.4592	Ave		2.4626				3.2		20.0			
Bis(2-chloroethyl)ether	1.6194	1.7470 1.6025	1.5696 1.5475	1.5052 1.5458	1.6063	Ave		1.5929			0.7000	4.6		20.0			
2-Chlorophenol	1.5314	1.6248 1.5753	1.4769 1.5699	1.5296 1.5662	1.5501	Ave		1.5530			0.8000	2.8		20.0			
n-Decane	1.6833	1.9195 1.7406	1.8321 1.6655	1.6715 1.6848	1.7811	Ave		1.7473				5.2		20.0			
1,3-Dichlorobenzene	1.5911	1.7501 1.5757	1.6828 1.5722	1.6170 1.5675	1.5966	Ave		1.6191				4.0		20.0			
1,4-Dichlorobenzene	1.5726	1.7628 1.6429	1.6500 1.5779	1.6329 1.6110	1.6392	Ave		1.6362				3.6		20.0			
Benzyl alcohol	1.0499	1.0710 1.0690	1.0916 1.0395	0.9883 1.0302	1.0320	Ave		1.0464				3.0		20.0			
1,2-Dichlorobenzene	1.5036	1.6421 1.5469	1.5752 1.5037	1.5514 1.4946	1.5591	Ave		1.5471				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4106	1.4903 1.4526	1.3828 1.3962	1.4121 1.4266	1.4200	Ave		1.4239			0.7000	2.4		20.0			
bis (2-chloroisopropyl) ether	1.9622	2.2064 1.9618	2.2072 1.8604	2.1227 1.8140	2.0177	Ave		2.0190				7.4		20.0			
Indene	2.6933	3.0009 2.7155	2.7977 2.5939	2.6736 2.5924	2.7387	Ave		2.7257				4.8		20.0			
3 & 4 Methylphenol	1.4479	1.5833 1.4939	1.5508 1.4563	1.4454 1.4354	1.4663	Ave		1.4849				3.7		20.0			
N-Nitrosodi-n-propylamine	0.9764	1.1048 0.9856	1.1369 0.9144	1.0200 0.9009	0.9874	Ave		1.0033			0.5000	8.3		20.0			
Acetophenone	2.1212	2.3042 2.1158	2.3107 2.0211	2.0546 1.9935	2.1019	Ave		2.1279			0.0100	5.6		20.0			
Hexachloroethane	0.6997	0.7196 0.7037	0.7924 0.7056	0.6555 0.7009	0.6918	Ave		0.7086			0.3000	5.4		20.0			
Nitrobenzene	0.3864	0.3767 0.3912	0.4174 0.4061	0.4062 0.4046	0.4082	Ave		0.3996			0.2000	3.4		20.0			
Isophorone	0.7507	0.8048 0.7289	0.7413 0.7352	0.7564 0.7471	0.7375	Ave		0.7502			0.4000	3.2		20.0			
2-Nitrophenol	0.1861	0.1560 0.1836	0.1508 0.1913	0.1794 0.1916	0.1789	Ave		0.1772			0.1000	8.7		20.0			
2,4-Dimethylphenol	0.3695	0.4165 0.3608	0.3787 0.3612	0.3846 0.3611	0.3723	Ave		0.3756			0.2000	5.0		20.0			
Benzoic acid	0.2059	+++++ 0.2206	0.1674 0.2251	0.1670 0.2353	0.2030	Ave		0.2035				13.3		20.0			
Bis(2-chloroethoxy)methane	0.4493	0.4862 0.4353	0.4781 0.4279	0.4723 0.4331	0.4589	Ave		0.4551			0.3000	4.9		20.0			
2,4-Dichlorophenol	0.2973	0.2937 0.2896	0.2860 0.2886	0.2919 0.2956	0.2829	Ave		0.2907			0.2000	1.7		20.0			
1,2,4-Trichlorobenzene	0.3164	0.3414 0.3091	0.3393 0.3158	0.3308 0.3203	0.3280	Ave		0.3252				3.6		20.0			
Naphthalene	1.2596 1.0523	1.1605 1.0515	1.0865 1.0809	1.0592 1.0954	1.0631	Ave		1.1010			0.7000	6.2		20.0			
4-Chloroaniline	0.4719	0.5175 0.4612	0.4511 0.4620	0.4818 0.4631	0.4830	Ave		0.4739			0.0100	4.4		20.0			
2,6-Dichlorophenol	0.2821	0.2933 0.2798	0.2660 0.2802	0.2820 0.2824	0.2930	Ave		0.2824				3.0		20.0			
Hexachlorobutadiene	0.1915	0.2113 0.1858	0.1940 0.1874	0.2005 0.1919	0.1976	Ave		0.1950			0.0100	4.2		20.0			
Caprolactam	0.1133	0.1157 0.1120	0.1074 0.1138	0.1124 0.1185	0.1148	Ave		0.1135			0.0100	2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3141	0.2858 0.3083	0.3034 0.3086	0.3079 0.3102	0.3227	Ave		0.3076			0.2000	3.4		20.0			
2-Methylnaphthalene	0.8309 0.7132	0.7772 0.6908	0.6909 0.6968	0.7179 0.7098	0.7155	Ave		0.7270			0.4000	6.4		20.0			
1-Methylnaphthalene	0.6181 0.6146	0.6256 0.6062	0.5990 0.6080	0.6040 0.6154	0.6318	Ave		0.6136				1.7		20.0			
Hexachlorocyclopentadiene	0.3226	0.2443 0.3152	0.2547 0.3489	0.2744 0.3546	0.3021	Ave		0.3021			0.0500	13.6		20.0			
1,2,4,5-Tetrachlorobenzene	0.5647	0.6050 0.5273	0.6039 0.5496	0.5154 0.5267	0.5356	Ave		0.5535			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3798	0.3139 0.3526	0.3230 0.3740	0.3354 0.3541	0.3594	Ave		0.3490			0.2000	6.7		20.0			
2,4,5-Trichlorophenol	0.4070	0.3413 0.3674	0.3800 0.3836	0.3419 0.3711	0.3761	Ave		0.3711			0.2000	5.9		20.0			
1,1'-Biphenyl	1.8708 1.5981	1.6906 1.5315	1.6493 1.6100	1.5015 1.5571	1.5369	Ave		1.6162			0.0100	7.0		20.0			
2-Chloronaphthalene	1.4181 1.1998	1.2285 1.1479	1.2218 1.1608	1.1168 1.1459	1.1621	Ave		1.2002			0.8000	7.5		20.0			
2-Nitroaniline	0.3980	0.3519 0.3817	0.3613 0.3976	0.3503 0.3837	0.3940	Ave		0.3773			0.0100	5.3		20.0			
Dimethyl phthalate	1.3816	1.3748 1.3328	1.3759 1.3605	1.2991 1.3265	1.3518	Ave		1.3504			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2201	0.1468 0.2049	0.1782 0.2133	0.1660 0.2167	0.2067	Ave		0.1941				13.9		20.0			
2,6-Dinitrotoluene	0.3105	0.2943 0.2963	0.2908 0.2992	0.2755 0.2907	0.2882	Ave		0.2932				3.4		20.0			
Acenaphthylene	1.9748 1.8437	1.8580 1.7645	1.7749 1.8245	1.6538 1.7907	1.7770	Ave		1.8069			0.9000	4.8		20.0			
3-Nitroaniline	0.3547	0.3262 0.3418	0.3390 0.3575	0.3485 0.3432	0.3340	Ave		0.3431			0.0100	3.0		20.0			
2,4-Dinitrophenol	0.1444	+++++ 0.1371	0.0616 0.1495	0.0752 0.1690	0.1092	Lin1	-0.277	0.1595			0.0100				0.9900		0.9900
Acenaphthene	1.3819 1.2700	1.3280 1.1753	1.2670 1.2142	1.2066 1.1725	1.2095	Ave		1.2472			0.9000	5.7		20.0			
4-Nitrophenol	0.2227	0.1545 0.2108	0.1882 0.2238	0.1913 0.2155	0.2071	Ave		0.2017				11.5		20.0			
2,4-Dinitrotoluene	0.4130	0.2837 0.3855	0.3634 0.4035	0.3578 0.3885	0.3859	Ave		0.3727			0.2000	10.8		20.0			
Dibenzofuran	1.8862 1.6581	1.6595 1.5492	1.6138 1.6301	1.5253 1.5884	1.6195	Ave		1.6367			0.8000	6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3477	0.2688 0.3323	0.3087 0.3394	0.2949 0.3353	0.3179	Ave		0.3181			0.0100	8.3		20.0			
Diethyl phthalate	1.3969	1.4558 1.3106	1.4628 1.3374	1.3077 1.2820	1.4048	Ave		1.3698			0.0100	5.1		20.0			
Hexadecane	0.5382	0.6029 0.5184	0.5764 0.5098	0.5610 0.4958	0.5689	Ave		0.5464				6.8		20.0			
4-Chlorophenyl phenyl ether	0.6680	0.7015 0.6348	0.6597 0.6541	0.6256 0.6278	0.6353	Ave		0.6509			0.4000	3.9		20.0			
4-Nitroaniline	0.3648	0.3168 0.3474	0.3452 0.3486	0.3168 0.3303	0.3458	Ave		0.3395			0.0100	4.9		20.0			
Fluorene	1.5300 1.3919	1.3783 1.2910	1.4591 1.3541	1.3273 1.2899	1.3653	Ave		1.3763			0.9000	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1156	+++++ 0.1184	0.0557 0.1195	0.0807 0.1346	0.1041	Lin1	-0.177	0.1288			0.0100				0.9960		0.9900
N-Nitrosodiphenylamine	0.5540	0.5825 0.5568	0.5988 0.5566	0.5727 0.5635	0.5783	Ave		0.5704			0.0100	2.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.8960	0.9336 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
Azobenzene	0.8960	0.9383 0.8932	0.9173 0.8871	0.8959 0.8878	0.9127	Ave		0.9035				2.0		20.0			
4-Bromophenyl phenyl ether	0.2195	0.2305 0.2148	0.2165 0.2124	0.2174 0.2151	0.2156	Ave		0.2177			0.1000	2.5		20.0			
Hexachlorobenzene	0.2694 0.2419	0.2693 0.2462	0.2553 0.2396	0.2324 0.2430	0.2471	Ave		0.2493			0.1000	5.2		20.0			
Atrazine	0.2263	0.2440 0.2208	0.2478 0.2163	0.2231 0.2170	0.2291	Ave		0.2280			0.0100	5.2		20.0			
Pentachlorophenol	0.1409	+++++ 0.1484	0.1182 0.1516	0.1310 0.1539	0.1440	Ave		0.1412			0.0500	9.0		20.0			
n-Octadecane	0.9708	0.9538 0.8649	1.0028 0.8694	0.9400 0.8259	0.9865	Ave		0.9267				7.0		20.0			
Phenanthrene	1.3669 1.1691	1.2223 1.2003	1.2571 1.1982	1.2025 1.1980	1.1909	Ave		1.2228			0.7000	4.8		20.0			
Anthracene	1.2269 1.2073	1.2265 1.2200	1.1985 1.2188	1.2202 1.2318	1.1918	Ave		1.2157			0.7000	1.1		20.0			
Carbazole	1.0391	1.1263 1.0557	1.1046 1.0548	1.0454 1.0529	1.0665	Ave		1.0682			0.0100	2.9		20.0			
Di-n-butyl phthalate	1.4466	1.4567 1.4598	1.4039 1.4459	1.4100 1.4482	1.4757	Ave		1.4434			0.0100	1.7		20.0			
Fluoranthene	1.3347 1.2883	1.2888 1.3037	1.2814 1.3079	1.2807 1.3301	1.2889	Ave		1.3005			0.6000	1.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.7777	0.5211 0.8148	0.5283 0.7661	0.6196 0.8001	0.7569	Ave		0.6981				17.5		20.0			
Pyrene	1.4793 1.2589	1.2992 1.2964	1.2580 1.3143	1.2647 1.2983	1.2890	Ave		1.3065			0.6000	5.2		20.0			
Butyl benzyl phthalate	0.6332	0.6073 0.6426	0.5822 0.6336	0.6120 0.6239	0.6182	Ave		0.6191			0.0100	3.1		20.0			
3,3'-Dichlorobenzidine	0.4223	0.3857 0.4449	0.3749 0.4563	0.4174 0.4465	0.4178	Ave		0.4207			0.0100	6.9		20.0			
Bis(2-ethylhexyl) phthalate	0.8617	0.8470 0.8479	0.8384 0.8448	0.8395 0.8050	0.8628	Ave		0.8434			0.0100	2.1		20.0			
Benzo[a]anthracene	1.2664 1.1440	1.2305 1.1753	1.1090 1.2018	1.1130 1.1875	1.1422	Ave		1.1744			0.8000	4.5		20.0			
Chrysene	1.2361 1.0882	1.0142 1.0938	1.0532 1.0947	1.0681 1.0832	1.0755	Ave		1.0897			0.7000	5.5		20.0			
Di-n-octyl phthalate	1.8506	1.4170 1.9334	1.5757 1.9244	1.5861 1.9266	1.7684	Ave		1.7478			0.0100	11.3		20.0			
Benzo[b]fluoranthene	1.1157 1.2687	1.1796 1.2714	1.1504 1.3381	1.1258 1.3173	1.2257	Ave		1.2214			0.7000	6.8		20.0			
Benzo[k]fluoranthene	1.3728 1.3539	1.2980 1.3933	1.3307 1.3017	1.3028 1.3292	1.4110	Ave		1.3437			0.7000	3.1		20.0			
Benzo[a]pyrene	1.1140 1.2089	1.1079 1.2605	1.1114 1.2468	1.0749 1.2513	1.1833	Ave		1.1732			0.7000	6.2		20.0			
Indeno[1,2,3-cd]pyrene	0.8823 1.2402	0.9452 1.2732	1.0483 1.3132	1.0493 1.3092	1.2161	Ave		1.1419			0.5000	14.3		20.0			
Dibenz(a,h)anthracene	0.8565 0.9932	0.7547 1.0460	0.7618 1.0554	0.8523 1.0735	0.9154	Ave		0.9232			0.4000	13.5		20.0			
Benzo[g,h,i]perylene	1.0075 1.0370	0.8864 1.0885	0.9622 1.0943	0.9716 1.1036	1.0277	Ave		1.0199			0.5000	7.0		20.0			
2-Fluorophenol (Surr)	1.4876	1.5253 1.5261	1.5198 1.4888	1.4105 1.5310	1.4877	Ave		1.4971				2.7		20.0			
Phenol-d5 (Surr)	1.8248	1.8708 1.8593	1.8294 1.7952	1.7763 1.8327	1.8083	Ave		1.8246				1.7		20.0			
Nitrobenzene-d5 (Surr)	0.5769 0.4480	0.4792 0.4390	0.4385 0.4491	0.4528 0.4498	0.4365	Ave		0.4633				9.6		20.0			
2-Fluorobiphenyl (Surr)	1.4174 1.3214	1.2745 1.2649	1.3040 1.3146	1.2205 1.2729	1.2989	Ave		1.2988				4.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1868	0.1759 0.1752	0.1713 0.1830	0.1629 0.1827	0.1776	Ave		0.1769				4.3		20.0			
Terphenyl-d14 (Surr)	0.9616 0.7699	0.7473 0.8076	0.7630 0.8142	0.7897 0.7915	0.7669	Ave		0.8013				8.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-190307/10	50723010.D
Level 2	STD2 240-190307/9	50723009.D
Level 3	STD3 240-190307/8	50723008.D
Level 4	STD4 240-190307/7	50723007.D
Level 5	STD5 240-190307/6	50723006.D
Level 6	STD6 240-190307/5	50723005.D
Level 7	STD7 240-190307/4	50723004.D
Level 8	STD8 240-190307/3	50723003.D
Level 9	STD9 240-190307/2	50723002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	276553	12800 415328	28072 564271	46323 680163	140786	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	372601	18808 574880	39545 747022	79367 926848	188902	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	728459	34056 1100145	66216 1458358	159569 1773391	362206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1234426	69976 1830401	136170 2369849	266994 2812415	627653	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	922809	57794 1386220	92301 1841184	198422 2217957	463739	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1164962	64854 1775513	123045 2361481	244379 2853779	583328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	779087	43799 1136604	76477 1502758	158399 1800197	381036	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	736767	40736 1117322	71961 1524563	160968 1823895	367690	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	809810	48124 1234525	89269 1617363	175899 1961989	422492	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	765469	43878 1117589	81995 1526765	170160 1825374	378723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	756574	44196 1165226	80395 1532308	171840 1876112	388828	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	505092	26850 758179	53186 1009487	104003 1199709	244806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	723354	41170 1097164	76750 1460265	163259 1740565	369830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	678618	37363 1030271	67378 1355823	148599 1661345	336822	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	944013	55316 1391436	107544 1806676	223374 2112460	478617	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2591406	150470 3852003	272631 5037952	562707 6038052	1299256	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	696576	39696 1059543	75562 1414265	152103 1671564	347824	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	469761	27699 699056	55397 887945	107333 1049125	234228	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1020513	57769 1500622	112591 1962707	216209 2321473	498584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	336626	18040 499075	38612 685205	68979 816284	164097	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	765805	39695 1188161	86723 1612392	172196 1900953	403029	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1487852	84803 2213654	154025 2919420	320690 3510410	728095	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	368833	16434 557482	31340 759436	76054 900304	176624	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	732305	43891 1095811	78682 1434298	163056 1696711	367594	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Ave	816205	+++++ 1340208	69553 1787755	141574 2211526	400838	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	890477	51234 1322148	99353 1699151	200224 2034955	453088	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	589233	30952 879660	59419 1145826	123757 1388890	279311	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	627144	35973 938827	70511 1254197	140255 1505067	323800	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	25122 2085588	122278 3193506	225766 4292032	449067 5146751	1049558	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	935254	54530 1400645	93743 1834630	204264 2175707	476850	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	559095	30905 849891	55271 1112508	119559 1326952	289327	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	379622	22262 564237	40305 744226	85008 901759	195105	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	449264	24377 680462	44633 904089	95329 1113188	226690	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	622477	30115 936245	63034 1225473	130520 1457415	318574	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	16571 1413493	81899 2097945	143555 2766878	304355 3335074	706376	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	12327 1218161	65918 1841064	124463 2414178	256077 2891343	623815	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 340064	14396 525340	28564 743710	66781 931497	163602	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 595293	35647 878904	67726 1171635	125436 1383825	290062	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 400393	18496 587695	36225 797222	81633 930264	194653	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 429059	20112 612332	42625 817775	83206 974935	203683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	20484 1684782	99613 2552784	184979 3432250	365406 4090834	832285	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	15527 1264825	72384 1913379	137031 2474551	271796 3010419	629330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 419596	20735 636306	40525 847664	85252 1008168	213384	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1456516	81004 2221617	154314 2900321	316157 3484950	732059	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 232032	8649 341562	19981 454703	40394 569405	111946	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 327290	17343 493915	32617 637744	67056 763726	156049	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	21623 1943703	109475 2941138	199062 3889375	402490 4704600	962284	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 373930	19219 569786	38024 762020	84815 901775	180884	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 304402	+++++ 456937	13823 637415	36588 888218	118233	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	15131 1338854	78247 1958991	142097 2588489	293658 3080360	654989	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 469557	18205 702843	42216 954275	93116 1132415	224279	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 435411	16715 642531	40755 860149	87085 1020567	208966	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	20653 1748037	97782 2582307	181002 3474969	371212 4172955	877022	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 366535	15836 553934	34627 723551	71772 881013	172157	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1472655	85779 2184612	164059 2851031	318247 3368129	760753	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	PHN	Ave	 992364	57578 1425990	108663 1853657	218706 2167482	514866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	704229	41336 1058153	73988 1394419	152240 1649443	344027	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	384617	18669 578975	38714 743038	77102 867757	187246	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	16752 1467325	81211 2151934	163644 2886623	323028 3388821	739350	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	426404	+++++ 651386	20991 869256	62914 1176959	188421	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2043088	111248 3063524	225783 4047711	446561 4926857	1046817	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1652165	89154 2457274	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1652165	89603 2457224	172929 3225708	349264 3880894	826026	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	404794	22010 590900	40825 772384	84752 940333	195141	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	5018 446045	25717 677190	48125 871251	90598 1062066	223686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	834531	46603 1215006	93440 1572794	173937 1896928	414704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pentachlorophenol	PHN	Ave	519576	+++++ 816671	44567 1102843	102159 1345327	260718	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	ANT	Ave	1023383	56198 1441670	112469 1853461	228757 2169829	534195	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	25464 2155738	116724 3302075	237005 4356905	468782 5237205	1077885	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22856 2226187	117125 3356123	225946 4431695	475691 5384821	1078655	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1916019	107559 2904082	208257 3835600	407552 4602585	965295	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2667345	139112 4015924	264676 5257682	549698 6330991	1335614	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24864 2375455	123080 3586363	241583 4755820	499284 5814737	1166574	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	3013265	104449 4645829	214861 5752068	505499 7427351	1443995	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	28155 2438897	130199 3695921	255829 4934408	515874 6026253	1229634	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1226748	60859 1832137	118389 2378717	249658 2895831	589683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	1636231	77309 2536701	152462 3425793	340488 4145171	797193	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54373-1 Analy Batch No.: 190307

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/23/2015 09:02 Calibration End Date: 07/23/2015 12:15 Calibration ID: 29808

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1669358	84881 2417243	170493 3171709	342463 3736488	823074	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	24103 2216166	123310 3350860	225512 4511758	453998 5512085	1089545	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	23526 2108147	101636 3118312	214181 4109878	435708 5027973	1025994	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2964288	118545 4605551	255699 6087757	541689 7508423	1380551	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	16916 2032157	98688 3028631	186677 4233135	384495 5133897	956843	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	20814 2168630	108592 3319055	215935 4118052	444919 5180273	1101521	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	16890 1936381	92686 3002714	180345 3944256	367111 4876489	923773	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13377 1986504	79079 3032858	170116 4154362	358367 5102213	949405	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	12986 1590831	63143 2491580	123626 3338864	291072 4183693	714613	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	15275 1660947	74156 2592790	156143 3461799	331832 4301108	802289	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	715660	38242 1082403	74052 1445821	148429 1782939	352888	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	877880	46904 1318724	89137 1743338	186929 2134215	428931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11506 888020	50491 1333368	91117 1783461	191977 2113324	430950	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15519 1393078	75099 2108382	146249 2802442	297033 3344088	703383	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	196928	10364 292098	19213 390131	39654 479960	96160	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	18301 1491532	74892 2302320	155162 3056842	322116 3674070	731615	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.5862		10.5	10.0	5.5	30.0
N-Nitrosodimethylamine	Ave	0.7828	0.7145		9.13	10.0	-8.7	30.0
Pyridine	Ave	1.481	1.547		10.4	10.0	4.4	30.0
Benzaldehyde	Ave	1.298	1.330	0.0100	20.5	20.0	2.4	30.0
Phenol	Ave	1.964	1.989	0.8000	10.1	10.0	1.3	30.0
Aniline	Ave	2.463	2.507		10.2	10.0	1.8	30.0
Bis(2-chloroethyl)ether	Ave	1.593	1.605	0.7000	10.1	10.0	0.7	30.0
2-Chlorophenol	Ave	1.553	1.555	0.8000	10.0	10.0	0.1	30.0
n-Decane	Ave	1.747	1.725		9.87	10.0	-1.3	30.0
1,3-Dichlorobenzene	Ave	1.619	1.617		9.99	10.0	-0.1	30.0
1,4-Dichlorobenzene	Ave	1.636	1.658		10.1	10.0	1.4	30.0
Benzyl alcohol	Ave	1.046	1.075		10.3	10.0	2.7	30.0
1,2-Dichlorobenzene	Ave	1.547	1.540		9.96	10.0	-0.4	30.0
2-Methylphenol	Ave	1.424	1.475	0.7000	10.4	10.0	3.6	30.0
bis (2-chloroisopropyl) ether	Ave	2.019	2.001		9.91	10.0	-0.9	30.0
Indene	Ave	2.726	2.656		19.5	20.0	-2.6	30.0
3 & 4 Methylphenol	Ave	1.485	1.506		10.1	10.0	1.4	30.0
N-Nitrosodi-n-propylamine	Ave	1.003	1.000	0.5000	9.97	10.0	-0.3	30.0
Acetophenone	Ave	2.128	2.133	0.0100	10.0	10.0	0.2	30.0
Hexachloroethane	Ave	0.7086	0.7000	0.3000	9.88	10.0	-1.2	30.0
Nitrobenzene	Ave	0.3996	0.3948	0.2000	9.88	10.0	-1.2	30.0
Isophorone	Ave	0.7502	0.7581	0.4000	10.1	10.0	1.0	30.0
2-Nitrophenol	Ave	0.1772	0.1810	0.1000	10.2	10.0	2.2	30.0
2,4-Dimethylphenol	Ave	0.3756	0.3595	0.2000	9.57	10.0	-4.3	30.0
Benzoic acid	Ave	0.2035	0.2215		21.8	20.0	8.9	30.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4402	0.3000	9.67	10.0	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2907	0.2838	0.2000	9.76	10.0	-2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3174		9.76	10.0	-2.4	30.0
Naphthalene	Ave	1.101	1.040	0.7000	9.44	10.0	-5.6	30.0
4-Chloroaniline	Ave	0.4739	0.4528	0.0100	9.55	10.0	-4.5	30.0
2,6-Dichlorophenol	Ave	0.2824	0.2777		9.83	10.0	-1.7	30.0
Hexachlorobutadiene	Ave	0.1950	0.1883	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1135	0.1150	0.0100	20.3	20.0	1.4	30.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3197	0.2000	10.4	10.0	3.9	30.0
2-Methylnaphthalene	Ave	0.7270	0.6675	0.4000	9.18	10.0	-8.2	30.0
1-Methylnaphthalene	Ave	0.6136	0.6318		10.3	10.0	3.0	30.0
Hexachlorocyclopentadiene	Ave	0.3021	0.3074	0.0500	10.2	10.0	1.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5179	0.0100	9.36	10.0	-6.4	30.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3509	0.2000	10.1	10.0	0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3771	0.2000	10.2	10.0	1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.486	0.0100	9.19	10.0	-8.1	30.0
2-Chloronaphthalene	Ave	1.200	1.120	0.8000	9.33	10.0	-6.7	30.0
2-Nitroaniline	Ave	0.3773	0.3843	0.0100	10.2	10.0	1.8	30.0
Dimethyl phthalate	Ave	1.350	1.319	0.0100	9.76	10.0	-2.4	30.0
1,3-Dinitrobenzene	Ave	0.1941	0.2065		10.6	10.0	6.4	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2947		10.1	10.0	0.5	30.0
Acenaphthylene	Ave	1.807	1.709	0.9000	9.46	10.0	-5.4	30.0
3-Nitroaniline	Ave	0.3431	0.3324	0.0100	9.69	10.0	-3.1	30.0
2,4-Dinitrophenol	Lin1	0.1208	0.1396	0.0100	19.2	20.0	-3.8	30.0
Acenaphthene	Ave	1.247	1.195	0.9000	9.58	10.0	-4.2	30.0
4-Nitrophenol	Ave	0.2017	0.2150		21.3	20.0	6.6	30.0
2,4-Dinitrotoluene	Ave	0.3727	0.3915	0.2000	10.5	10.0	5.0	30.0
Dibenzofuran	Ave	1.637	1.556	0.8000	9.51	10.0	-4.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.3177	0.0100	9.99	10.0	-0.1	30.0
Diethyl phthalate	Ave	1.370	1.308	0.0100	9.55	10.0	-4.5	30.0
Hexadecane	Ave	0.5464	0.5185		9.49	10.0	-5.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.6166	0.4000	9.47	10.0	-5.3	30.0
4-Nitroaniline	Ave	0.3395	0.3419	0.0100	10.1	10.0	0.7	30.0
Fluorene	Ave	1.376	1.300	0.9000	9.45	10.0	-5.5	30.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1201	0.0100	20.0	20.0	0.1	30.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5393	0.0100	18.9	20.0	-5.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9197		10.2	10.0	1.9	30.0
Azobenzene	Ave	0.9035	0.9207		10.2	10.0	1.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.2076	0.1000	9.54	10.0	-4.6	30.0
Hexachlorobenzene	Ave	0.2493	0.2365	0.1000	9.48	10.0	-5.2	30.0
Atrazine	Ave	0.2280	0.2142	0.0100	18.8	20.0	-6.1	30.0
Pentachlorophenol	Ave	0.1412	0.1492	0.0500	21.1	20.0	5.7	30.0
n-Octadecane	Ave	0.9267	0.9301		10.0	10.0	0.4	30.0
Phenanthrene	Ave	1.223	1.124	0.7000	9.19	10.0	-8.1	30.0
Anthracene	Ave	1.216	1.170	0.7000	9.62	10.0	-3.8	30.0
Carbazole	Ave	1.068	1.010	0.0100	9.45	10.0	-5.5	30.0
Di-n-butyl phthalate	Ave	1.443	1.409	0.0100	9.76	10.0	-2.4	30.0
Fluoranthene	Ave	1.301	1.260	0.6000	9.69	10.0	-3.1	30.0
Benzidine	Ave	0.6981	0.7226		20.7	20.0	3.5	30.0
Pyrene	Ave	1.306	1.286	0.6000	9.84	10.0	-1.6	30.0
Butyl benzyl phthalate	Ave	0.6191	0.6467	0.0100	10.4	10.0	4.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4139	0.0100	19.7	20.0	-1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8592	0.0100	10.2	10.0	1.9	30.0
Benzo[a]anthracene	Ave	1.174	1.169	0.8000	9.96	10.0	-0.4	30.0
Chrysene	Ave	1.090	1.155	0.7000	10.6	10.0	6.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: ICV 240-190307/11 | Calibration Date: 07/23/2015 12:40

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50723011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.769	0.0100	10.1	10.0	1.2	30.0
Benzo[b]fluoranthene	Ave	1.221	1.200	0.7000	9.82	10.0	-1.8	30.0
Benzo[k]fluoranthene	Ave	1.344	1.310	0.7000	9.75	10.0	-2.5	30.0
Benzo[a]pyrene	Ave	1.173	1.150	0.7000	9.80	10.0	-2.0	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.169	0.5000	10.2	10.0	2.3	30.0
Dibenz(a,h)anthracene	Ave	0.9232	0.9554	0.4000	10.3	10.0	3.5	30.0
Benzo[g,h,i]perylene	Ave	1.020	1.029	0.5000	10.1	10.0	0.9	30.0
2-Fluorophenol (Surr)	Ave	1.497	1.628		10.9	10.0	8.7	30.0
Phenol-d5 (Surr)	Ave	1.825	1.989		10.9	10.0	9.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4579		9.88	10.0	-1.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.317		10.1	10.0	1.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1838		10.4	10.0	3.9	30.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.8489		10.6	10.0	5.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50818001.D DFTPP Injection Date: 08/18/2015

Instrument ID: A4HP10 DFTPP Injection Time: 12:28

Analysis Batch No.: 193693

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.7	
68	Less than 2.0% of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	38.4	
70	Less than 2.0% of mass 69	0.3	(0.9)1
127	25.0 - 75.0% of mass 198	50.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.0	
442	40.0 - 110.0% of mass 198	83.9	
443	15.0 - 24.0% of mass 442	15.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-193693/2	50818002.D	08/18/2015	12:52
	MB 240-193501/23-A	50818018.D	08/18/2015	16:11
	LCS 240-193501/24-A	50818019.D	08/18/2015	16:36
D-VB-F-6-2	240-54373-1	50818020.D	08/18/2015	20:14
D-VB-F-11-2	240-54373-2	50818021.D	08/18/2015	20:38
D-VB-F-12-2	240-54373-3	50818022.D	08/18/2015	21:02
D-VB-F-16-2	240-54373-4	50818023.D	08/18/2015	21:26
D-VB-F-17-2	240-54373-5	50818024.D	08/18/2015	21:50
D-VB-F-18-2	240-54373-6	50818025.D	08/18/2015	22:14
D-VB-F-21-3	240-54373-7	50818026.D	08/18/2015	22:38
D-VB-F-22-2	240-54373-8	50818027.D	08/18/2015	23:02
D-DUP04-081415	240-54373-9	50818028.D	08/18/2015	23:26

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5557	0.4270		7.68	10.0	-23.2*	20.0
N-Nitrosodimethylamine	Ave	0.7828	0.6287		8.03	10.0	-19.7	20.0
Pyridine	Ave	1.481	1.189		8.02	10.0	-19.8	20.0
Benzaldehyde	Ave	1.298	1.340	0.0100	20.6	20.0	3.2	20.0
Phenol	Ave	1.964	2.186	0.8000	11.1	10.0	11.3	20.0
Aniline	Ave	2.463	2.566		10.4	10.0	4.2	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.664	0.7000	10.4	10.0	4.5	20.0
2-Chlorophenol	Ave	1.553	1.587	0.8000	10.2	10.0	2.2	20.0
n-Decane	Ave	1.747	1.909		10.9	10.0	9.3	20.0
1,3-Dichlorobenzene	Ave	1.619	1.600		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.636	1.594		9.74	10.0	-2.6	20.0
Benzyl alcohol	Ave	1.046	0.9073		8.67	10.0	-13.3	20.0
1,2-Dichlorobenzene	Ave	1.547	1.560		10.1	10.0	0.8	20.0
2-Methylphenol	Ave	1.424	1.510	0.7000	10.6	10.0	6.1	20.0
bis (2-chloroisopropyl) ether	Ave	2.019	1.970		9.76	10.0	-2.4	20.0
Indene	Ave	2.726	2.726		20.0	20.0	0.0	20.0
3 & 4 Methylphenol	Ave	1.485	1.410		9.50	10.0	-5.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.003	0.9695	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.128	2.060	0.0100	9.68	10.0	-3.2	20.0
Hexachloroethane	Ave	0.7086	0.7186	0.3000	10.1	10.0	1.4	20.0
Nitrobenzene	Ave	0.3996	0.4109	0.2000	10.3	10.0	2.8	20.0
Isophorone	Ave	0.7502	0.7529	0.4000	10.0	10.0	0.4	20.0
2-Nitrophenol	Ave	0.1772	0.1839	0.1000	10.4	10.0	3.8	20.0
2,4-Dimethylphenol	Ave	0.3756	0.3830	0.2000	10.2	10.0	2.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4551	0.4417	0.3000	9.71	10.0	-2.9	20.0
Benzoic acid	Ave	0.2035	0.1295		12.7	20.0	-36.3*	20.0
2,4-Dichlorophenol	Ave	0.2907	0.2885	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.3252	0.3059		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.101	1.050	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4739	0.4521	0.0100	9.54	10.0	-4.6	20.0
2,6-Dichlorophenol	Ave	0.2824	0.2701		9.57	10.0	-4.3	20.0
Hexachlorobutadiene	Ave	0.1950	0.1726	0.0100	8.85	10.0	-11.5	20.0
Caprolactam	Ave	0.1135	0.1161	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3076	0.3196	0.2000	10.4	10.0	3.9	20.0
2-Methylnaphthalene	Ave	0.7270	0.6775	0.4000	9.32	10.0	-6.8	20.0
1-Methylnaphthalene	Ave	0.6136	0.5859		9.55	10.0	-4.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5535	0.5340	0.0100	9.65	10.0	-3.5	20.0
Hexachlorocyclopentadiene	Ave	0.3021	0.1480	0.0500	4.90	10.0	-51.0*	20.0
2,4,6-Trichlorophenol	Ave	0.3490	0.3271	0.2000	9.37	10.0	-6.3	20.0
2,4,5-Trichlorophenol	Ave	0.3711	0.3593	0.2000	9.68	10.0	-3.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.616	1.547	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.200	1.166	0.8000	9.72	10.0	-2.8	20.0
2-Nitroaniline	Ave	0.3773	0.3990	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.350	1.323	0.0100	9.80	10.0	-2.0	20.0
1,3-Dinitrobenzene	Ave	0.1941	0.2183		11.2	10.0	12.5	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2952		10.1	10.0	0.7	20.0
Acenaphthylene	Ave	1.807	1.806	0.9000	10.0	10.0	-0.0	20.0
3-Nitroaniline	Ave	0.3431	0.3573	0.0100	10.4	10.0	4.1	20.0
2,4-Dinitrophenol	Lin1	0.1208	0.1225	0.0100	17.1	20.0	-14.5	20.0
Acenaphthene	Ave	1.247	1.155	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2017	0.2094		20.8	20.0	3.8	20.0
2,4-Dinitrotoluene	Ave	0.3727	0.3919	0.2000	10.5	10.0	5.2	20.0
Dibenzofuran	Ave	1.637	1.534	0.8000	9.38	10.0	-6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3181	0.2591	0.0100	8.14	10.0	-18.6	20.0
Diethyl phthalate	Ave	1.370	1.254	0.0100	9.15	10.0	-8.5	20.0
Hexadecane	Ave	0.5464	0.5214		9.54	10.0	-4.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6509	0.5916	0.4000	9.09	10.0	-9.1	20.0
4-Nitroaniline	Ave	0.3395	0.3465	0.0100	10.2	10.0	2.1	20.0
Fluorene	Ave	1.376	1.260	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1	0.1041	0.1235	0.0100	20.5	20.0	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5704	0.5617	0.0100	19.7	20.0	-1.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9029	0.9266		10.3	10.0	2.6	20.0
Azobenzene	Ave	0.9035	0.9266		10.3	10.0	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2177	0.1990	0.1000	9.14	10.0	-8.6	20.0
Hexachlorobenzene	Ave	0.2493	0.2100	0.1000	8.42	10.0	-15.8	20.0
Atrazine	Ave	0.2280	0.2224	0.0100	19.5	20.0	-2.5	20.0
n-Octadecane	Ave	0.9267	0.8303		8.96	10.0	-10.4	20.0
Pentachlorophenol	Ave	0.1412	0.0947	0.0500	13.4	20.0	-32.9*	20.0
Phenanthrene	Ave	1.223	1.170	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.216	1.220	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.068	1.072	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.443	1.426	0.0100	9.88	10.0	-1.2	20.0
Fluoranthene	Ave	1.301	1.284	0.6000	9.87	10.0	-1.3	20.0
Benzidine	Ave	0.6981	0.8679		24.9	20.0	24.3*	20.0
Pyrene	Ave	1.306	1.344	0.6000	10.3	10.0	2.9	20.0
Butyl benzyl phthalate	Ave	0.6191	0.6245	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.4207	0.4343	0.0100	20.6	20.0	3.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8434	0.8223	0.0100	9.75	10.0	-2.5	20.0
Benzo[a]anthracene	Ave	1.174	1.172	0.8000	9.98	10.0	-0.2	20.0
Chrysene	Ave	1.090	1.082	0.7000	9.93	10.0	-0.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Lab Sample ID: CCV 240-193693/2 | Calibration Date: 08/18/2015 12:52

Instrument ID: A4HP10 | Calib Start Date: 07/23/2015 09:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 07/23/2015 12:15

Lab File ID: 50818002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.748	1.751	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.221	1.236	0.7000	10.1	10.0	1.2	20.0
Benzo[k]fluoranthene	Ave	1.344	1.230	0.7000	9.15	10.0	-8.5	20.0
Benzo[a]pyrene	Ave	1.173	1.190	0.7000	10.1	10.0	1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.142	1.262	0.5000	11.1	10.0	10.5	20.0
Dibenz(a,h)anthracene	Ave	0.9232	1.029	0.4000	11.1	10.0	11.5	20.0
Benzo[g,h,i]perylene	Ave	1.020	1.109	0.5000	10.9	10.0	8.7	20.0
2-Fluorophenol (Surr)	Ave	1.497	1.568		10.5	10.0	4.7	20.0
Phenol-d5 (Surr)	Ave	1.825	1.902		10.4	10.0	4.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4633	0.4158		8.97	10.0	-10.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.299	1.252		9.64	10.0	-3.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1769	0.1306		7.38	10.0	-26.2*	20.0
Terphenyl-d14 (Surr)	Ave	0.8013	0.7799		9.73	10.0	-2.7	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Lab File ID: 50818018.D Lab Sample ID: MB 240-193501/23-A

Matrix: Solid Date Extracted: 08/17/2015 07:04

Instrument ID: A4HP10 Date Analyzed: 08/18/2015 16:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-193501/24-A	50818019.D	08/18/2015 16:36
D-VB-F-6-2	240-54373-1	50818020.D	08/18/2015 20:14
D-VB-F-11-2	240-54373-2	50818021.D	08/18/2015 20:38
D-VB-F-12-2	240-54373-3	50818022.D	08/18/2015 21:02
D-VB-F-16-2	240-54373-4	50818023.D	08/18/2015 21:26
D-VB-F-17-2	240-54373-5	50818024.D	08/18/2015 21:50
D-VB-F-18-2	240-54373-6	50818025.D	08/18/2015 22:14
D-VB-F-21-3	240-54373-7	50818026.D	08/18/2015 22:38
D-VB-F-22-2	240-54373-8	50818027.D	08/18/2015 23:02
D-DUP04-081415	240-54373-9	50818028.D	08/18/2015 23:26

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54373-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-193501/23-A

Matrix: Solid | Lab File ID: 50818018.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/17/2015 07:04

Sample wt/vol: 30(g) | Date Analyzed: 08/18/2015 16:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 193693 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	62		36-110
4165-62-2	Phenol-d5 (Surr)	67		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		20-110
367-12-4	2-Fluorophenol (Surr)	63		24-110
321-60-8	2-Fluorobiphenyl (Surr)	58		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	13		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50818019.D

Lab ID: LCS 240-193501/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	358	54	38-110	
Acenaphthylene	667	367	55	40-110	
Anthracene	667	379	57	48-110	
Benzo[a]anthracene	667	389	58	50-110	
Benzo[a]pyrene	667	404	61	44-110	
Benzo[b]fluoranthene	667	402	60	43-110	
Benzo[g,h,i]perylene	667	430	64	51-110	
Benzo[k]fluoranthene	667	379	57	38-105	
Chrysene	667	401	60	50-110	
Dibenz(a,h)anthracene	667	458	69	51-110	
Fluoranthene	667	381	57	51-110	
Fluorene	667	356	53	46-110	
Indeno[1,2,3-cd]pyrene	667	455	68	50-110	
Naphthalene	667	357	54	36-110	
Phenanthrene	667	371	56	49-110	
Pyrene	667	389	58	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VB-F-6-2	240-54373-1	47	49	40	47	13	50
D-VB-F-11-2	240-54373-2	48	50	41	47	5 X	49
D-VB-F-12-2	240-54373-3	41	43	34	43	4 X	43
D-VB-F-16-2	240-54373-4	49	50	43	48	8 X	52
D-VB-F-17-2	240-54373-5	53	51	45	51	9 X	55
D-VB-F-18-2	240-54373-6	56	57	47	54	8 X	55
D-VB-F-21-3	240-54373-7	49	47	40	45	11	48
D-VB-F-22-2	240-54373-8	51	51	43	48	18	51
D-DUP04-081415	240-54373-9	59	60	49	55	15	58
	MB 240-193501/23-A	63	67	55	58	13	62
	LCS 240-193501/24-A	60	62	50	56	19	61

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		192437	6.15	792801	7.26	421686	8.77
UPPER LIMIT		384874	6.65	1585602	7.76	843372	9.27
LOWER LIMIT		96219	5.65	396401	6.76	210843	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		213794	6.15	925926	7.26	519111	8.77
CCV 240-193693/2 CCVIS		212198	6.11	880533	7.23	455646	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: STD6 240-190307/5 Date Analyzed: 07/23/2015 10:14

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50723005.D Heated Purge: (Y/N) N

Calibration ID: 29808

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		737567	10.03	774903	12.69	640703	14.84
UPPER LIMIT		1475134	10.53	1549806	13.19	1281406	15.34
LOWER LIMIT		368784	9.53	387452	12.19	320352	14.34
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-190307/11		878886	10.03	895297	12.69	767274	14.84
CCV 240-193693/2 CCVIS		731796	9.99	739480	12.63	656632	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		212198	6.11	880533	7.23	455646	8.73
UPPER LIMIT		424396	6.61	1761066	7.73	911292	9.23
LOWER LIMIT		106099	5.61	440267	6.73	227823	8.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193501/23-A		220827	6.11	984016	7.23	548343	8.73
LCS 240-193501/24-A		240552	6.11	1049643	7.23	575038	8.73
240-54373-1	D-VB-F-6-2	266835	6.11	1153825	7.23	632626	8.73
240-54373-2	D-VB-F-11-2	283885	6.11	1224865	7.23	670948	8.73
240-54373-3	D-VB-F-12-2	271704	6.11	1170378	7.23	630466	8.73
240-54373-4	D-VB-F-16-2	294820	6.11	1244967	7.23	671521	8.73
240-54373-5	D-VB-F-17-2	248099	6.11	1085002	7.23	580837	8.73
240-54373-6	D-VB-F-18-2	246441	6.11	1073942	7.23	575419	8.73
240-54373-7	D-VB-F-21-3	262503	6.11	1132265	7.23	629295	8.73
240-54373-8	D-VB-F-22-2	269869	6.11	1149283	7.23	630223	8.73
240-54373-9	D-DUP04-081415	246583	6.11	1055931	7.23	580629	8.73

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54373-1

SDG No.:

Sample No.: CCV 240-193693/2 Date Analyzed: 08/18/2015 12:52

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 50818002.D Heated Purge: (Y/N) N

Calibration ID: 29890

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731796	9.99	739480	12.63	656632	14.77
UPPER LIMIT		1463592	10.49	1478960	13.13	1313264	15.27
LOWER LIMIT		365898	9.49	369740	12.13	328316	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-193501/23-A		922081	9.99	900632	12.62	752912	14.77
LCS 240-193501/24-A		948118	9.99	955369	12.62	824602	14.77
240-54373-1	D-VB-F-6-2	1045185	9.99	1040017	12.62	868864	14.77
240-54373-2	D-VB-F-11-2	1122661	9.99	1113099	12.62	918733	14.77
240-54373-3	D-VB-F-12-2	1054919	9.99	1053188	12.62	852373	14.77
240-54373-4	D-VB-F-16-2	1102805	9.99	1097445	12.62	907232	14.77
240-54373-5	D-VB-F-17-2	972701	9.99	986733	12.62	781122	14.77
240-54373-6	D-VB-F-18-2	983621	9.99	988451	12.62	791757	14.77
240-54373-7	D-VB-F-21-3	1042632	9.99	1071372	12.62	828526	14.77
240-54373-8	D-VB-F-22-2	1048257	9.99	1067660	12.62	824912	14.77
240-54373-9	D-DUP04-081415	964754	9.99	980049	12.62	757357	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **AUGUST 26, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54467-1

SAMPLES: 6 / Soil / PAHs

D-VB-F-10-2	D-VB-F-13-2	D-VB-F-14-2
D-VB-F-15-2	D-VB-F-19-2	D-VS-F-4-1

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54467-1, consists of seven (7) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). No field duplicate pair is included in this SDG.

The samples were collected by Tetra Tech on August 18, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

Sample D-VB-F-13-2 was analyzed at dilution factor of 6.66.

The matrix spike (MS)/matrix spike duplicate (MSD) analysis included in this data package had MS percent recoveries (%Rs) less than laboratory quality control criteria for fluoranthene and pyrene and MSD %Rs greater than laboratory quality control criteria for benzo(a)pyrene and benzo(b)fluoranthene. No action was necessary because the MS/MSD analysis was performed on a sample that was not part of this SDG.

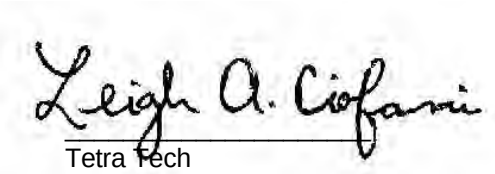
Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

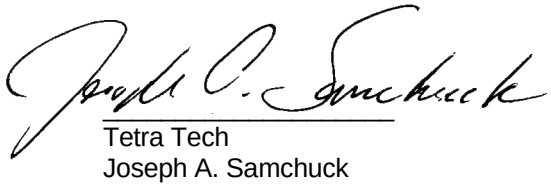
Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-VB-F-10-2			D-VB-F-13-2			D-VB-F-14-2			D-VB-F-15-2		
SDG: 240-54467-1	LAB_ID	240-54467-2			240-54467-3			240-54467-4			240-54467-5		
FRACTION: PAH	SAMP_DATE	8/18/2015			8/18/2015			8/18/2015			8/18/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.9			91.1			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		4.4	J	P	510			0.9	U		7.1	J	P
ACENAPHTHYLENE		6.1	J	P	71			0.42	U		0.4	U	
ANTHRACENE		12			1400			0.93	U		15		
BENZO(A)ANTHRACENE		43			2900			0.75	U		48		
BENZO(A)PYRENE		47			2700			5.8	J	P	50		
BENZO(B)FLUORANTHENE		58			3200			6.4	J	P	65		
BENZO(G,H,I)PERYLENE		36			2000			19			43		
BENZO(K)FLUORANTHENE		32			1600			0.81	U		29		
CHRYSENE		52			2900			11			49		
DIBENZO(A,H)ANTHRACENE		0.7	U		580			0.78	U		10		
FLUORANTHENE		81			6300			4.1	J	P	86		
FLUORENE		6.6	J	P	570			0.63	U		7.8		
INDENO(1,2,3-CD)PYRENE		31			1700			13			35		
NAPHTHALENE		12			47	J	P	0.97	U		7.3	J	P
PHENANTHRENE		47			4700			0.87	U		45		
PYRENE		76			5200			4.7	J	P	75		

PROJ_NO: 07483	NSAMPLE	D-VB-F-19-2			D-VS-F-4-1		
SDG: 240-54467-1	LAB_ID	240-54467-6			240-54467-1		
FRACTION: PAH	SAMP_DATE	8/18/2015			8/18/2015		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	86.3			90.4		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.88	U		10		
ACENAPHTHYLENE		0.41	U		22		
ANTHRACENE		5.9	J	P	39		
BENZO(A)ANTHRACENE		14			200		
BENZO(A)PYRENE		10			230		
BENZO(B)FLUORANTHENE		36			350		
BENZO(G,H,I)PERYLENE		22			260		
BENZO(K)FLUORANTHENE		12			130		
CHRYSENE		42			270		
DIBENZO(A,H)ANTHRACENE		0.77	U		54		
FLUORANTHENE		34			410		
FLUORENE		0.62	U		13		
INDENO(1,2,3-CD)PYRENE		17			190		
NAPHTHALENE		4.1	J	P	12		
PHENANTHRENE		15			180		
PYRENE		30			410		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-10-2 | Lab Sample ID: 240-54467-2

Matrix: Solid | Lab File ID: 50822022.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:30

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.24(g) | Date Analyzed: 08/22/2015 18:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 6.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.4	J	7.1	0.80
208-96-8	Acenaphthylene	6.1	J	7.1	0.37
120-12-7	Anthracene	12		7.1	0.82
56-55-3	Benzo[a]anthracene	43		7.1	0.67
50-32-8	Benzo[a]pyrene	47		7.1	0.68
205-99-2	Benzo[b]fluoranthene	58		7.1	0.62
191-24-2	Benzo[g,h,i]perylene	36		7.1	0.37
207-08-9	Benzo[k]fluoranthene	32		7.1	0.72
218-01-9	Chrysene	52		7.1	1.2
53-70-3	Dibenz(a,h)anthracene	0.70	U	7.1	0.70
206-44-0	Fluoranthene	81		7.1	0.58
86-73-7	Fluorene	6.6	J	7.1	0.56
193-39-5	Indeno[1,2,3-cd]pyrene	31		7.1	0.37
91-20-3	Naphthalene	12		7.1	0.87
85-01-8	Phenanthrene	47		7.1	0.77
129-00-0	Pyrene	76		7.1	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		36-110
4165-62-2	Phenol-d5 (Surr)	65		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		20-110
367-12-4	2-Fluorophenol (Surr)	59		24-110
321-60-8	2-Fluorobiphenyl (Surr)	62		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	51		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-13-2 | Lab Sample ID: 240-54467-3

Matrix: Solid | Lab File ID: 50822023.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:33

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30.02(g) | Date Analyzed: 08/22/2015 19:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 6.667

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	510		49	5.6
208-96-8	Acenaphthylene	71		49	2.6
120-12-7	Anthracene	1400		49	5.7
56-55-3	Benzo[a]anthracene	2900		49	4.6
50-32-8	Benzo[a]pyrene	2700		49	4.7
205-99-2	Benzo[b]fluoranthene	3200		49	4.3
191-24-2	Benzo[g,h,i]perylene	2000		49	2.6
207-08-9	Benzo[k]fluoranthene	1600		49	5.0
218-01-9	Chrysene	2900		49	8.0
53-70-3	Dibenz(a,h)anthracene	580		49	4.8
206-44-0	Fluoranthene	6300		49	4.0
86-73-7	Fluorene	570		49	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	1700		49	2.6
91-20-3	Naphthalene	47	J	49	6.0
85-01-8	Phenanthrene	4700		49	5.3
129-00-0	Pyrene	5200		49	3.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	72		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		20-110
367-12-4	2-Fluorophenol (Surr)	62		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-14-2 | Lab Sample ID: 240-54467-4

Matrix: Solid | Lab File ID: 50822018.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:35

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.94(g) | Date Analyzed: 08/22/2015 17:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.42	U	7.9	0.42
120-12-7	Anthracene	0.93	U	7.9	0.93
56-55-3	Benzo[a]anthracene	0.75	U	7.9	0.75
50-32-8	Benzo[a]pyrene	5.8	J	7.9	0.76
205-99-2	Benzo[b]fluoranthene	6.4	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	19		7.9	0.42
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	11		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	4.1	J	7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.9	0.42
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	0.87	U	7.9	0.87
129-00-0	Pyrene	4.7	J	7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		36-110
4165-62-2	Phenol-d5 (Surr)	58		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		20-110
367-12-4	2-Fluorophenol (Surr)	55		24-110
321-60-8	2-Fluorobiphenyl (Surr)	52		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-15-2 | Lab Sample ID: 240-54467-5

Matrix: Solid | Lab File ID: 50822020.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:37

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.68(g) | Date Analyzed: 08/22/2015 17:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.1	J	7.7	0.87
208-96-8	Acenaphthylene	0.40	U	7.7	0.40
120-12-7	Anthracene	15		7.7	0.90
56-55-3	Benzo[a]anthracene	48		7.7	0.72
50-32-8	Benzo[a]pyrene	50		7.7	0.74
205-99-2	Benzo[b]fluoranthene	65		7.7	0.68
191-24-2	Benzo[g,h,i]perylene	43		7.7	0.40
207-08-9	Benzo[k]fluoranthene	29		7.7	0.78
218-01-9	Chrysene	49		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	10		7.7	0.76
206-44-0	Fluoranthene	86		7.7	0.63
86-73-7	Fluorene	7.8		7.7	0.61
193-39-5	Indeno[1,2,3-cd]pyrene	35		7.7	0.40
91-20-3	Naphthalene	7.3	J	7.7	0.94
85-01-8	Phenanthrene	45		7.7	0.84
129-00-0	Pyrene	75		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	72		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	53		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VB-F-19-2 | Lab Sample ID: 240-54467-6

Matrix: Solid | Lab File ID: 50822019.D

Analysis Method: 8270D | Date Collected: 08/18/2015 10:40

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.91(g) | Date Analyzed: 08/22/2015 17:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	7.8	0.88
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	5.9	J	7.8	0.91
56-55-3	Benzo[a]anthracene	14		7.8	0.73
50-32-8	Benzo[a]pyrene	10		7.8	0.74
205-99-2	Benzo[b]fluoranthene	36		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	22		7.8	0.41
207-08-9	Benzo[k]fluoranthene	12		7.8	0.79
218-01-9	Chrysene	42		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	34		7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	17		7.8	0.41
91-20-3	Naphthalene	4.1	J	7.8	0.95
85-01-8	Phenanthrene	15		7.8	0.85
129-00-0	Pyrene	30		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		36-110
4165-62-2	Phenol-d5 (Surr)	74		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		20-110
367-12-4	2-Fluorophenol (Surr)	70		24-110
321-60-8	2-Fluorobiphenyl (Surr)	67		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: D-VS-F-4-1 | Lab Sample ID: 240-54467-1

Matrix: Solid | Lab File ID: 50822021.D

Analysis Method: 8270D | Date Collected: 08/18/2015 09:30

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 29.83(g) | Date Analyzed: 08/22/2015 18:16

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		7.4	0.85
208-96-8	Acenaphthylene	22		7.4	0.39
120-12-7	Anthracene	39		7.4	0.87
56-55-3	Benzo[a]anthracene	200		7.4	0.70
50-32-8	Benzo[a]pyrene	230		7.4	0.71
205-99-2	Benzo[b]fluoranthene	350		7.4	0.66
191-24-2	Benzo[g,h,i]perylene	260		7.4	0.39
207-08-9	Benzo[k]fluoranthene	130		7.4	0.76
218-01-9	Chrysene	270		7.4	1.2
53-70-3	Dibenz(a,h)anthracene	54		7.4	0.73
206-44-0	Fluoranthene	410		7.4	0.61
86-73-7	Fluorene	13		7.4	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	190		7.4	0.39
91-20-3	Naphthalene	12		7.4	0.91
85-01-8	Phenanthrene	180		7.4	0.81
129-00-0	Pyrene	410		7.4	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	69		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		20-110
367-12-4	2-Fluorophenol (Surr)	60		24-110
321-60-8	2-Fluorobiphenyl (Surr)	64		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

APPENDIX C

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

0.6/C1.6

TEST America North Canton OH

PROJECT NO.: 112IC07483

SITE NAME: LMC MRC

SAMPLERS (SIGNATURE): Thomas M Dickson

STATION NO.	DATE 2015	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	PAHs (8270D)						REMARKS
BLKD Area F	08/18	0930	X		D-VS-F-4-1	1	1						3 Day TAT
		1030		X	D-VB-F-10-2	1	1						
		1033		X	D-VB-F-13-2	1	1						
		1035		X	D-VB-F-14-2	1	1						
		1037		X	D-VB-F-15-2	1	1						
		1040		X	D-VB-F-19-2	1	1						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Thomas M Dickson	18Aug15 1200	Paul Gayleard	[signature]	8-15-2015 1405	
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
		[signature] 8-19-15 920			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	

Order No. 70440 (0693)

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 34467**
Canton Facility

Client Tetratech Site Name _____ Cooler unpacked by:

Cooler Received on 8-19-15 Opened on 8-19-15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.6 °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

☐ See Multiple Cooler Form

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LMC MRC Block D Area F

Report Number: 240-54467-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/19/2015 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F-4-1 (240-54467-1), D-VB-F-10-2 (240-54467-2), D-VB-F-13-2 (240-54467-3), D-VB-F-14-2 (240-54467-4), D-VB-F-15-2 (240-54467-5) and D-VB-F-19-2 (240-54467-6) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/20/2015 and analyzed on 08/22/2015.

Sample D-VB-F-13-2 (240-54467-3)[6.67X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F-4-1 (240-54467-1), D-VB-F-10-2 (240-54467-2), D-VB-F-13-2 (240-54467-3), D-VB-F-14-2 (240-54467-4), D-VB-F-15-2 (240-54467-5) and D-VB-F-19-2 (240-54467-6) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/19/2015.

Percent Moisture exceeded the RPD limit for the duplicate of sample D-VB-F-10-2DU (240-54467-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54467-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54467-1	D-VS-F-4-1	Solid	08/18/2015 0930	08/19/2015 0920
240-54467-2	D-VB-F-10-2	Solid	08/18/2015 1030	08/19/2015 0920
240-54467-3	D-VB-F-13-2	Solid	08/18/2015 1033	08/19/2015 0920
240-54467-4	D-VB-F-14-2	Solid	08/18/2015 1035	08/19/2015 0920
240-54467-5	D-VB-F-15-2	Solid	08/18/2015 1037	08/19/2015 0920
240-54467-6	D-VB-F-19-2	Solid	08/18/2015 1040	08/19/2015 0920

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54467-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54467-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	F3	Duplicate RPD exceeds the control limit

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54467-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50822001.D DFTPP Injection Date: 08/22/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:35

Analysis Batch No.: 194396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	84.4	
70	Less than 2.0% of mass 69	0.5	(0.5)1
127	25.0 - 75.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	23.0	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.4	
442	40.0 - 110.0% of mass 198	50.0	
443	15.0 - 24.0% of mass 442	9.7	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-194396/2	50822002.D	08/22/2015	09:56
	MB 240-194053/12-A	50822003.D	08/22/2015	10:50
	LCS 240-194053/13-A	50822004.D	08/22/2015	11:15
D-VB-F-14-2	240-54467-4	50822018.D	08/22/2015	17:01
D-VB-F-19-2	240-54467-6	50822019.D	08/22/2015	17:26
D-VB-F-15-2	240-54467-5	50822020.D	08/22/2015	17:51
D-VS-F-4-1	240-54467-1	50822021.D	08/22/2015	18:16
D-VB-F-10-2	240-54467-2	50822022.D	08/22/2015	18:41
D-VB-F-13-2	240-54467-3	50822023.D	08/22/2015	19:05
	240-54203-C-19-H MS	50822026.D	08/22/2015	20:19
	240-54203-C-19-I MSD	50822027.D	08/22/2015	20:44

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID (1): CCV 240-194396/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/22/2015 09:56

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.98	100.0
Phenol-d5 (Surr)	5.88	100.0
Nitrobenzene-d5 (Surr)	6.69	100.0
Naphthalene	7.35	100.0
2-Fluorobiphenyl (Surr)	8.23	100.0
Acenaphthylene	8.72	100.0
Acenaphthene	8.86	100.0
Fluorene	9.29	100.0
2,4,6-Tribromophenol (Surr)	9.50	100.0
Phenanthrene	10.11	100.0
Anthracene	10.16	100.0
Fluoranthene	11.12	100.0
Pyrene	11.32	100.0
Terphenyl-d14 (Surr)	11.41	100.0
Benzo[a]anthracene	12.34	100.0
Chrysene	12.37	100.0
Benzo[b]fluoranthene	13.48	35.00
Benzo[k]fluoranthene	13.51	100.0
Benzo[a]pyrene	13.91	100.0
Indeno[1,2,3-cd]pyrene	15.76	100.0
Dibenz(a,h)anthracene	15.76	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 | Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	1.064		10.8	10.0	8.0	20.0
N-Nitrosodimethylamine	Ave	1.693	1.874		11.1	10.0	10.7	20.0
Pyridine	Ave	2.930	3.163		10.8	10.0	7.9	20.0
Benzaldehyde	Ave	2.328	2.313	0.0100	19.9	20.0	-0.6	20.0
Phenol	Ave	2.775	2.972	0.8000	10.7	10.0	7.1	20.0
Aniline	Ave	3.583	3.637		10.2	10.0	1.5	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.662	0.7000	10.6	10.0	6.2	20.0
2-Chlorophenol	Ave	1.523	1.535	0.8000	10.1	10.0	0.8	20.0
n-Decane	Ave	1.999	2.072		10.4	10.0	3.6	20.0
1,3-Dichlorobenzene	Ave	1.630	1.640		10.1	10.0	0.6	20.0
1,4-Dichlorobenzene	Ave	1.666	1.661		9.97	10.0	-0.3	20.0
Benzyl alcohol	Ave	1.232	1.157		9.39	10.0	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.580	1.560		9.87	10.0	-1.3	20.0
2-Methylphenol	Ave	1.706	1.689	0.7000	9.90	10.0	-1.0	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.714		9.09	10.0	-9.1	20.0
Indene	Ave	3.185	3.000		18.8	20.0	-5.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.959	0.5000	9.89	10.0	-1.1	20.0
3 & 4 Methylphenol	Ave	1.799	1.641		9.12	10.0	-8.8	20.0
Acetophenone	Ave	2.817	2.685	0.0100	9.53	10.0	-4.7	20.0
Hexachloroethane	Ave	0.8166	0.7972	0.3000	9.76	10.0	-2.4	20.0
Nitrobenzene	Ave	0.7749	0.7689	0.2000	9.92	10.0	-0.8	20.0
Isophorone	Ave	1.226	1.216	0.4000	9.92	10.0	-0.8	20.0
2-Nitrophenol	Ave	0.1796	0.1897	0.1000	10.6	10.0	5.6	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4672	0.2000	9.55	10.0	-4.5	20.0
Benzoic acid	Lin1		0.1515		13.7	20.0	-31.7*	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6889	0.3000	10.2	10.0	1.9	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2949	0.2000	9.63	10.0	-3.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3218		9.89	10.0	-1.1	20.0
Naphthalene	Ave	1.144	1.071	0.7000	9.36	10.0	-6.4	20.0
4-Chloroaniline	Ave	0.4932	0.4626	0.0100	9.38	10.0	-6.2	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2883		9.72	10.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.2017	0.1912	0.0100	9.48	10.0	-5.2	20.0
Caprolactam	Ave	0.1384	0.1408	0.0100	20.3	20.0	1.7	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.3917	0.2000	9.36	10.0	-6.4	20.0
2-Methylnaphthalene	Ave	0.7006	0.6612	0.4000	9.44	10.0	-5.6	20.0
1-Methylnaphthalene	Ave	0.6168	0.5854		9.49	10.0	-5.1	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.2617	0.0500	7.89	10.0	-21.1*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5731	0.0100	10.1	10.0	0.7	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3742	0.2000	9.99	10.0	-0.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3732	0.2000	9.46	10.0	-5.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.419	0.0100	9.57	10.0	-4.3	20.0
2-Chloronaphthalene	Ave	1.171	1.126	0.8000	9.62	10.0	-3.8	20.0
2-Nitroaniline	Ave	0.6109	0.6459	0.0100	10.6	10.0	5.7	20.0
Dimethyl phthalate	Ave	1.267	1.253	0.0100	9.89	10.0	-1.1	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2152		10.9	10.0	9.1	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2953		10.5	10.0	5.3	20.0
Acenaphthylene	Ave	1.869	1.795	0.9000	9.61	10.0	-3.9	20.0
3-Nitroaniline	Ave	0.3056	0.3136	0.0100	10.3	10.0	2.6	20.0
2,4-Dinitrophenol	Lin1		0.1437	0.0100	19.8	20.0	-1.2	20.0
Acenaphthene	Ave	1.201	1.099	0.9000	9.16	10.0	-8.4	20.0
4-Nitrophenol	Ave	0.2548	0.2595		20.4	20.0	1.8	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.4005	0.2000	10.7	10.0	7.1	20.0
Dibenzofuran	Ave	1.648	1.524	0.8000	9.25	10.0	-7.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3106	0.0100	9.87	10.0	-1.3	20.0
Diethyl phthalate	Ave	1.245	1.167	0.0100	9.38	10.0	-6.2	20.0
Hexadecane	Ave	1.016	0.9637		9.48	10.0	-5.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5927	0.4000	9.66	10.0	-3.4	20.0
4-Nitroaniline	Ave	0.2967	0.3260	0.0100	11.0	10.0	9.9	20.0
Fluorene	Ave	1.379	1.258	0.9000	9.12	10.0	-8.8	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1315	0.0100	21.4	20.0	6.9	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5285	0.0100	18.6	20.0	-7.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.535		9.71	10.0	-2.8	20.0
Azobenzene	Ave	1.580	1.535		9.71	10.0	-2.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2069	0.1000	9.68	10.0	-3.2	20.0
Hexachlorobenzene	Ave	0.2114	0.2042	0.1000	9.66	10.0	-3.4	20.0
Atrazine	Ave	0.2132	0.2163	0.0100	20.3	20.0	1.4	20.0
n-Octadecane	Ave	0.6421	0.6061		9.44	10.0	-5.6	20.0
Pentachlorophenol	Ave	0.1444	0.1228	0.0500	17.0	20.0	-14.9	20.0
Phenanthrene	Ave	1.268	1.165	0.7000	9.18	10.0	-8.2	20.0
Anthracene	Ave	1.261	1.186	0.7000	9.40	10.0	-6.0	20.0
Carbazole	Ave	1.050	1.067	0.0100	10.2	10.0	1.6	20.0
Di-n-butyl phthalate	Ave	1.250	1.294	0.0100	10.4	10.0	3.5	20.0
Fluoranthene	Ave	1.280	1.250	0.6000	9.76	10.0	-2.4	20.0
Benzidine	Lin1		0.6653		21.6	20.0	7.8	20.0
Pyrene	Ave	1.153	1.261	0.6000	10.9	10.0	9.4	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5752	0.0100	10.7	10.0	6.9	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7908	0.0100	10.8	10.0	8.2	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3995	0.0100	22.2	20.0	11.1	20.0
Benzo[a]anthracene	Ave	1.234	1.229	0.8000	9.95	10.0	-0.5	20.0
Chrysene	Ave	1.158	1.170	0.7000	10.1	10.0	1.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Lab Sample ID: CCV 240-194396/2 | Calibration Date: 08/22/2015 09:56

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50822002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.463	0.0100	10.3	10.0	3.1	20.0
Benzo[b]fluoranthene	Ave	1.185	1.138	0.7000	9.60	10.0	-4.0	20.0
Benzo[k]fluoranthene	Ave	1.198	1.248	0.7000	10.4	10.0	4.2	20.0
Benzo[a]pyrene	Ave	1.128	1.152	0.7000	10.2	10.0	2.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.336	0.5000	11.4	10.0	13.9	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.073	0.4000	11.7	10.0	16.7	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.151	0.5000	11.8	10.0	18.2	20.0
2-Fluorophenol (Surr)	Ave	1.750	1.821		10.4	10.0	4.0	20.0
Phenol-d5 (Surr)	Ave	2.475	2.550		10.3	10.0	3.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7618		9.83	10.0	-1.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.234		9.44	10.0	-5.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1295		9.96	10.0	-0.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7745		10.5	10.0	5.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Lab File ID: 50822003.D Lab Sample ID: MB 240-194053/12-A

Matrix: Solid Date Extracted: 08/20/2015 07:47

Instrument ID: A4HP9 Date Analyzed: 08/22/2015 10:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194053/13-A	50822004.D	08/22/2015 11:15
D-VB-F-14-2	240-54467-4	50822018.D	08/22/2015 17:01
D-VB-F-19-2	240-54467-6	50822019.D	08/22/2015 17:26
D-VB-F-15-2	240-54467-5	50822020.D	08/22/2015 17:51
D-VS-F-4-1	240-54467-1	50822021.D	08/22/2015 18:16
D-VB-F-10-2	240-54467-2	50822022.D	08/22/2015 18:41
D-VB-F-13-2	240-54467-3	50822023.D	08/22/2015 19:05
	240-54203-C-19-H MS	50822026.D	08/22/2015 20:19
	240-54203-C-19-I MSD	50822027.D	08/22/2015 20:44

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54467-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194053/12-A

Matrix: Solid | Lab File ID: 50822003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/20/2015 07:47

Sample wt/vol: 30(g) | Date Analyzed: 08/22/2015 10:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 194396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		36-110
4165-62-2	Phenol-d5 (Surr)	77		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	69		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	24		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822004.D

Lab ID: LCS 240-194053/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	529	79	38-110	
Acenaphthylene	667	542	81	40-110	
Anthracene	667	539	81	48-110	
Benzo[a]anthracene	667	595	89	50-110	
Benzo[a]pyrene	667	613	92	44-110	
Benzo[b]fluoranthene	667	596	89	43-110	
Benzo[g,h,i]perylene	667	710	107	51-110	
Benzo[k]fluoranthene	667	640	96	38-105	
Chrysene	667	619	93	50-110	
Dibenz(a,h)anthracene	667	699	105	51-110	
Fluoranthene	667	575	86	51-110	
Fluorene	667	539	81	46-110	
Indeno[1,2,3-cd]pyrene	667	682	102	50-110	
Naphthalene	667	548	82	36-110	
Phenanthrene	667	526	79	49-110	
Pyrene	667	646	97	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822026.D

Lab ID: 240-54203-C-19-H MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Acenaphthene	814	8.8	533	64	22-110	
Acenaphthylene	814	130	579	55	24-110	
Anthracene	814	130	658	65	20-110	
Benzo[a]anthracene	814	650	855	26	10-122	
Benzo[a]pyrene	814	640	869	28	10-110	
Benzo[b]fluoranthene	814	800	946	18	12-118	
Benzo[g,h,i]perylene	814	380	799	52	10-117	
Benzo[k]fluoranthene	814	370	760	49	10-121	
Chrysene	814	630	882	31	10-125	
Dibenz(a,h)anthracene	814	110	719	75	14-113	
Fluoranthene	814	1100	1010	-6	10-110	F1
Fluorene	814	26	589	69	23-110	
Indeno[1,2,3-cd]pyrene	814	360	810	55	10-114	
Naphthalene	814	8.0 J	459	55	10-111	
Phenanthrene	814	270	744	58	10-166	
Pyrene	814	960	990	4	10-147	F1

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50822027.D

Lab ID: 240-54203-C-19-I MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Acenaphthene	817	585	70	9	99	22-110	
Acenaphthylene	817	793	81	31	99	24-110	
Anthracene	817	795	81	19	99	20-110	
Benzo[a]anthracene	817	1540	109	57	99	10-122	
Benzo[a]pyrene	817	1550	111	56	99	10-110	F1
Benzo[b]fluoranthene	817	1810	124	63	99	12-118	F1
Benzo[g,h,i]perylene	817	1230	104	42	99	10-117	
Benzo[k]fluoranthene	817	1160	97	41	99	10-121	
Chrysene	817	1550	112	55	99	10-125	
Dibenz(a,h)anthracene	817	841	89	16	99	14-113	
Fluoranthene	817	1960	110	64	99	10-110	
Fluorene	817	650	76	10	99	23-110	
Indeno[1,2,3-cd]pyrene	817	1190	102	38	99	10-114	
Naphthalene	817	502	60	9	99	10-111	
Phenanthrene	817	1110	103	40	99	10-166	
Pyrene	817	1950	122	65	99	10-147	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F-4-1	240-54467-1	60	69	53	64	37	82
D-VB-F-10-2	240-54467-2	59	65	49	62	51	80
D-VB-F-13-2	240-54467-3	62	72	58	70	37	82
D-VB-F-14-2	240-54467-4	55	58	47	52	45	90
D-VB-F-15-2	240-54467-5	72	79	63	70	53	84
D-VB-F-19-2	240-54467-6	70	74	62	67	41	83
	MB 240-194053/12-A	69	77	69	73	24	93
	LCS 240-194053/13-A	79	80	82	77	42	95
	240-54203-C-19-H MS	54	57	53	57	41	84
	240-54203-C-19-I MSD	57	65	57	62	47	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-194396/2 CCVIS		135257	6.21	533129	7.33	298733	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-194396/2 CCVIS		487262	10.09	505547	12.35	475689	13.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: CCV 240-194396/2 Date Analyzed: 08/22/2015 09:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50822002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135257	6.21	533129	7.33	298733	8.83
UPPER LIMIT		270514	6.71	1066258	7.83	597466	9.33
LOWER LIMIT		67629	5.71	266565	6.83	149367	8.33
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194053/12-A		115019	6.21	436484	7.33	251883	8.83
LCS 240-194053/13-A		120628	6.21	455822	7.33	262856	8.83
240-54467-4	D-VB-F-14-2	126831	6.21	480398	7.33	276285	8.83
240-54467-6	D-VB-F-19-2	134468	6.21	505382	7.33	305107	8.83
240-54467-5	D-VB-F-15-2	131739	6.21	502009	7.33	304478	8.83
240-54467-1	D-VS-F-4-1	144277	6.21	549790	7.33	326731	8.83
240-54467-2	D-VB-F-10-2	138990	6.21	540976	7.33	317759	8.83
240-54467-3	D-VB-F-13-2	141631	6.21	541479	7.33	320636	8.83
240-54203-C-19-H MS		147946	6.21	573602	7.33	334159	8.83
240-54203-C-19-I MSD		138296	6.21	553272	7.33	320380	8.83

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54467-1

SDG No.:

Sample No.: CCV 240-194396/2 Date Analyzed: 08/22/2015 09:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50822002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		487262	10.09	505547	12.35	475689	13.99
UPPER LIMIT		974524	10.59	1011094	12.85	951378	14.49
LOWER LIMIT		243631	9.59	252774	11.85	237845	13.49
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194053/12-A		422637	10.09	444063	12.34	388202	13.98
LCS 240-194053/13-A		446050	10.09	460641	12.34	410624	13.98
240-54467-4	D-VB-F-14-2	470616	10.09	519198	12.35	492581	13.98
240-54467-6	D-VB-F-19-2	521908	10.09	572843	12.35	522934	13.98
240-54467-5	D-VB-F-15-2	501105	10.09	563573	12.35	535663	13.99
240-54467-1	D-VS-F-4-1	544537	10.09	623941	12.34	612570	13.98
240-54467-2	D-VB-F-10-2	544692	10.09	609354	12.34	567194	13.98
240-54467-3	D-VB-F-13-2	542909	10.09	609272	12.35	604197	13.99
240-54203-C-19-H MS		577188	10.09	647367	12.35	632913	13.99
240-54203-C-19-I MSD		547463	10.09	588420	12.35	621592	13.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. NESBIT** **DATE:** **SEPTEMBER 11, 2015**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PAHS**
MRC SOIL REMEDY – BLOCK D – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-54676-1

SAMPLES: 13 / Soil / PAHs

D-DUP05-082415	D-DUP06-082415	D-VB-F1-10-3
D-VB-F1-1-3	D-VB-F1-4-3	D-VB-F1-5-3
D-VB-F-20-2	D-VB-F-23-2	D-VB-F-24-2
D-VB-F-25-2	D-VS-F1-3-2	D-VS-F1-4-2
D-VS-F-3-1		

OVERVIEW

The sample set for MRC Soil Remedy - Block D, SDG 240-54676-1, consists of thirteen (13) soil environmental samples. The samples were analyzed for polycyclic aromatic hydrocarbons (PAHs). Two field duplicate pairs are included in this SDG: D-VS-F1-4-2 / D-DUP05-082415 and D-VB-F-23-2 / D-DUP06-082415.

The samples were collected by Tetra Tech on August 24, 2015 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8270D analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, GC/MS tuning, holding times, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, internal standard areas and recoveries, field duplicate precision, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results greater than the method detection limit (MDL) but less than the RL were qualified as estimated (J).

NOTES

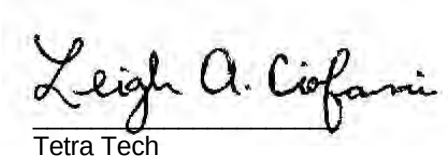
Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

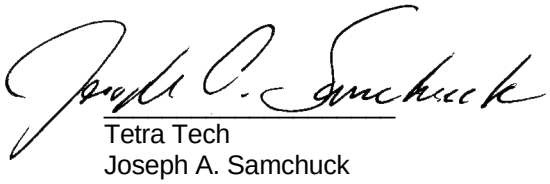
Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results between the MDL and the RL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA National Functional Guidelines for Organic Data Review (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07483	NSAMPLE	D-DUP05-082415			D-DUP06-082415			D-VB-F1-10-3			D-VB-F1-1-3		
SDG: 240-54676-1	LAB_ID	240-54676-6			240-54676-13			240-54676-5			240-54676-2		
FRACTION: OS	SAMP_DATE	8/24/2015			8/24/2015			8/24/2015			8/24/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.5			84.1			85.9			84.8		
	DUP_OF	D-VS-F1-4-2			D-VB-F-23-2								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.85	U		0.92	U		17			5.9	J	P
ACENAPHTHYLENE		0.39	U		0.42	U		15			6.3	J	P
ANTHRACENE		0.87	U		0.94	U		60			16		
BENZO(A)ANTHRACENE		0.7	U		0.76	U		170			65		
BENZO(A)PYRENE		0.72	U		0.77	U		210			72		
BENZO(B)FLUORANTHENE		5.5	J	P	0.71	U		290			120		
BENZO(G,H,I)PERYLENE		0.39	U		0.42	U		180			67		
BENZO(K)FLUORANTHENE		0.76	U		0.82	U		110			38		
CHRYSENE		5.2	J	P	1.3	U		300			81		
DIBENZO(A,H)ANTHRACENE		0.74	U		0.8	U		51			17		
FLUORANTHENE		7	J	P	0.66	U		270			120		
FLUORENE		0.59	U		0.64	U		18			8.6		
INDENO(1,2,3-CD)PYRENE		0.39	U		0.42	U		150			56		
NAPHTHALENE		0.92	U		0.99	U		19			14		
PHENANTHRENE		0.82	U		0.88	U		150			52		
PYRENE		6.8	J	P	4.7	J	P	270			110		

PROJ_NO: 07483	NSAMPLE	D-VB-F1-4-3			D-VB-F1-5-3			D-VB-F-20-2			D-VB-F-23-2		
SDG: 240-54676-1	LAB_ID	240-54676-3			240-54676-4			240-54676-8			240-54676-9		
FRACTION: OS	SAMP_DATE	8/24/2015			8/24/2015			8/24/2015			8/24/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.9			84.3			83.4			81.9		
	DUP_OF												

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE	14			0.9	U		0.9	U		0.93	U	
ACENAPHTHYLENE	9.8			0.41	U		0.41	U		0.43	U	
ANTHRACENE	29			7.5	J	P	0.92	U		0.95	U	
BENZO(A)ANTHRACENE	87			4.3	J	P	15			0.77	U	
BENZO(A)PYRENE	82			0.76	U		14			0.78	U	
BENZO(B)FLUORANTHENE	110			5.1	J	P	36			0.72	U	
BENZO(G,H,I)PERYLENE	57			0.41	U		14			0.43	U	
BENZO(K)FLUORANTHENE	58			0.81	U		12			0.83	U	
CHRYSENE	86			5.8	J	P	30			1.3	U	
DIBENZO(A,H)ANTHRACENE	13			0.78	U		0.78	U		0.81	U	
FLUORANTHENE	200			63			23			0.67	U	
FLUORENE	16			0.63	U		0.63	U		0.65	U	
INDENO(1,2,3-CD)PYRENE	51			0.41	U		13			0.43	U	
NAPHTHALENE	10			0.97	U		0.97	U		1	U	
PHENANTHRENE	110			5.8	J	P	10			0.89	U	
PYRENE	190			48			33			0.54	U	

PROJ_NO: 07483	NSAMPLE	D-VB-F-24-2			D-VB-F-25-2			D-VS-F1-3-2			D-VS-F1-4-2		
SDG: 240-54676-1	LAB_ID	240-54676-10			240-54676-11			240-54676-7			240-54676-1		
FRACTION: OS	SAMP_DATE	8/24/2015			8/24/2015			8/24/2015			8/24/2015		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.0			90.1			82.5			90.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ACENAPHTHENE		0.89	U		16			10			0.85	U	
ACENAPHTHYLENE		0.41	U		0.39	U		0.42	U		0.39	U	
ANTHRACENE		0.91	U		23			9.7			0.87	U	
BENZO(A)ANTHRACENE		0.73	U		75			40			8.2		
BENZO(A)PYRENE		0.75	U		74			44			0.72	U	
BENZO(B)FLUORANTHENE		0.69	U		100			65			15		
BENZO(G,H,I)PERYLENE		0.41	U		53			31			6	J	P
BENZO(K)FLUORANTHENE		0.79	U		39			22			10		
CHRYSENE		1.3	U		79			48			15		
DIBENZO(A,H)ANTHRACENE		0.77	U		13			0.79	U		0.74	U	
FLUORANTHENE		0.64	U		160			63			19		
FLUORENE		0.62	U		9.8			0.63	U		0.59	U	
INDENO(1,2,3-CD)PYRENE		0.41	U		43			26			4.1	J	P
NAPHTHALENE		0.96	U		5.8	J	P	6.1	J	P	5.3	J	P
PHENANTHRENE		0.85	U		95			28			6	J	P
PYRENE		0.51	U		140			61			16		

PROJ_NO: 07483	NSAMPLE	D-VS-F-3-1		
SDG: 240-54676-1	LAB_ID	240-54676-12		
FRACTION: OS	SAMP_DATE	8/24/2015		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	78.1		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ACENAPHTHENE		0.97	U	
ACENAPHTHYLENE		0.45	U	
ANTHRACENE		11		
BENZO(A)ANTHRACENE		75		
BENZO(A)PYRENE		71		
BENZO(B)FLUORANTHENE		110		
BENZO(G,H,I)PERYLENE		54		
BENZO(K)FLUORANTHENE		46		
CHRYSENE		92		
DIBENZO(A,H)ANTHRACENE		13		
FLUORANTHENE		160		
FLUORENE		0.68	U	
INDENO(1,2,3-CD)PYRENE		44		
NAPHTHALENE		1	U	
PHENANTHRENE		44		
PYRENE		140		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-DUP05-082415 | Lab Sample ID: 240-54676-6

Matrix: Solid | Lab File ID: 50828010.D

Analysis Method: 8270D | Date Collected: 08/24/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.32(g) | Date Analyzed: 08/28/2015 12:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	0.87	U	7.5	0.87
56-55-3	Benzo[a]anthracene	0.70	U	7.5	0.70
50-32-8	Benzo[a]pyrene	0.72	U	7.5	0.72
205-99-2	Benzo[b]fluoranthene	5.5	J	7.5	0.66
191-24-2	Benzo[g,h,i]perylene	0.39	U	7.5	0.39
207-08-9	Benzo[k]fluoranthene	0.76	U	7.5	0.76
218-01-9	Chrysene	5.2	J	7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	7.0	J	7.5	0.62
86-73-7	Fluorene	0.59	U	7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	0.39	U	7.5	0.39
91-20-3	Naphthalene	0.92	U	7.5	0.92
85-01-8	Phenanthrene	0.82	U	7.5	0.82
129-00-0	Pyrene	6.8	J	7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	75		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	66		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	69		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-DUP06-082415 | Lab Sample ID: 240-54676-13

Matrix: Solid | Lab File ID: 50828005.D

Analysis Method: 8270D | Date Collected: 08/24/2015 00:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.57(g) | Date Analyzed: 08/28/2015 10:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	8.0	0.92
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	0.94	U	8.0	0.94
56-55-3	Benzo[a]anthracene	0.76	U	8.0	0.76
50-32-8	Benzo[a]pyrene	0.77	U	8.0	0.77
205-99-2	Benzo[b]fluoranthene	0.71	U	8.0	0.71
191-24-2	Benzo[g,h,i]perylene	0.42	U	8.0	0.42
207-08-9	Benzo[k]fluoranthene	0.82	U	8.0	0.82
218-01-9	Chrysene	1.3	U	8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.80	U	8.0	0.80
206-44-0	Fluoranthene	0.66	U	8.0	0.66
86-73-7	Fluorene	0.64	U	8.0	0.64
193-39-5	Indeno[1,2,3-cd]pyrene	0.42	U	8.0	0.42
91-20-3	Naphthalene	0.99	U	8.0	0.99
85-01-8	Phenanthrene	0.88	U	8.0	0.88
129-00-0	Pyrene	4.7	J	8.0	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	84		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	37		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-20-2 | Lab Sample ID: 240-54676-8

Matrix: Solid | Lab File ID: 50828012.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.49(g) | Date Analyzed: 08/28/2015 13:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	0.92	U	7.9	0.92
56-55-3	Benzo[a]anthracene	15		7.9	0.74
50-32-8	Benzo[a]pyrene	14		7.9	0.76
205-99-2	Benzo[b]fluoranthene	36		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	14		7.9	0.41
207-08-9	Benzo[k]fluoranthene	12		7.9	0.80
218-01-9	Chrysene	30		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	23		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	13		7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	10		7.9	0.86
129-00-0	Pyrene	33		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	73		20-110
367-12-4	2-Fluorophenol (Surr)	80		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	22		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-23-2 | Lab Sample ID: 240-54676-9

Matrix: Solid | Lab File ID: 50828006.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:05

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.99(g) | Date Analyzed: 08/28/2015 10:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.93	U	8.1	0.93
208-96-8	Acenaphthylene	0.43	U	8.1	0.43
120-12-7	Anthracene	0.95	U	8.1	0.95
56-55-3	Benzo[a]anthracene	0.77	U	8.1	0.77
50-32-8	Benzo[a]pyrene	0.78	U	8.1	0.78
205-99-2	Benzo[b]fluoranthene	0.72	U	8.1	0.72
191-24-2	Benzo[g,h,i]perylene	0.43	U	8.1	0.43
207-08-9	Benzo[k]fluoranthene	0.83	U	8.1	0.83
218-01-9	Chrysene	1.3	U	8.1	1.3
53-70-3	Dibenz(a,h)anthracene	0.81	U	8.1	0.81
206-44-0	Fluoranthene	0.67	U	8.1	0.67
86-73-7	Fluorene	0.65	U	8.1	0.65
193-39-5	Indeno[1,2,3-cd]pyrene	0.43	U	8.1	0.43
91-20-3	Naphthalene	1.0	U	8.1	1.0
85-01-8	Phenanthrene	0.89	U	8.1	0.89
129-00-0	Pyrene	0.54	U	8.1	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	86		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		20-110
367-12-4	2-Fluorophenol (Surr)	82		24-110
321-60-8	2-Fluorobiphenyl (Surr)	71		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-24-2 | Lab Sample ID: 240-54676-10

Matrix: Solid | Lab File ID: 50828007.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:10

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.27(g) | Date Analyzed: 08/28/2015 11:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	7.8	0.89
208-96-8	Acenaphthylene	0.41	U	7.8	0.41
120-12-7	Anthracene	0.91	U	7.8	0.91
56-55-3	Benzo[a]anthracene	0.73	U	7.8	0.73
50-32-8	Benzo[a]pyrene	0.75	U	7.8	0.75
205-99-2	Benzo[b]fluoranthene	0.69	U	7.8	0.69
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.8	0.41
207-08-9	Benzo[k]fluoranthene	0.79	U	7.8	0.79
218-01-9	Chrysene	1.3	U	7.8	1.3
53-70-3	Dibenz(a,h)anthracene	0.77	U	7.8	0.77
206-44-0	Fluoranthene	0.64	U	7.8	0.64
86-73-7	Fluorene	0.62	U	7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.8	0.41
91-20-3	Naphthalene	0.96	U	7.8	0.96
85-01-8	Phenanthrene	0.85	U	7.8	0.85
129-00-0	Pyrene	0.51	U	7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	96		36-110
4165-62-2	Phenol-d5 (Surr)	91		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	85		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F-25-2 | Lab Sample ID: 240-54676-11

Matrix: Solid | Lab File ID: 50828013.D

Analysis Method: 8270D | Date Collected: 08/24/2015 12:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.74(g) | Date Analyzed: 08/28/2015 13:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	16		7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	23		7.5	0.87
56-55-3	Benzo[a]anthracene	75		7.5	0.71
50-32-8	Benzo[a]pyrene	74		7.5	0.72
205-99-2	Benzo[b]fluoranthene	100		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	53		7.5	0.39
207-08-9	Benzo[k]fluoranthene	39		7.5	0.76
218-01-9	Chrysene	79		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	13		7.5	0.74
206-44-0	Fluoranthene	160		7.5	0.62
86-73-7	Fluorene	9.8		7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	43		7.5	0.39
91-20-3	Naphthalene	5.8	J	7.5	0.92
85-01-8	Phenanthrene	95		7.5	0.82
129-00-0	Pyrene	140		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	76		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	26		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-1-3 | Lab Sample ID: 240-54676-2

Matrix: Solid | Lab File ID: 50828011.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:10

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.34(g) | Date Analyzed: 08/28/2015 12:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.9	J	7.8	0.89
208-96-8	Acenaphthylene	6.3	J	7.8	0.41
120-12-7	Anthracene	16		7.8	0.91
56-55-3	Benzo[a]anthracene	65		7.8	0.74
50-32-8	Benzo[a]pyrene	72		7.8	0.75
205-99-2	Benzo[b]fluoranthene	120		7.8	0.69
191-24-2	Benzo[g,h,i]perylene	67		7.8	0.41
207-08-9	Benzo[k]fluoranthene	38		7.8	0.79
218-01-9	Chrysene	81		7.8	1.3
53-70-3	Dibenz(a,h)anthracene	17		7.8	0.77
206-44-0	Fluoranthene	120		7.8	0.64
86-73-7	Fluorene	8.6		7.8	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	56		7.8	0.41
91-20-3	Naphthalene	14		7.8	0.96
85-01-8	Phenanthrene	52		7.8	0.85
129-00-0	Pyrene	110		7.8	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		36-110
4165-62-2	Phenol-d5 (Surr)	83		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	74		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	15		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-10-3 | Lab Sample ID: 240-54676-5

Matrix: Solid | Lab File ID: 50828016.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:25

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.53(g) | Date Analyzed: 08/28/2015 14:38

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	17		7.9	0.90
208-96-8	Acenaphthylene	15		7.9	0.41
120-12-7	Anthracene	60		7.9	0.92
56-55-3	Benzo[a]anthracene	170		7.9	0.74
50-32-8	Benzo[a]pyrene	210		7.9	0.76
205-99-2	Benzo[b]fluoranthene	290		7.9	0.70
191-24-2	Benzo[g,h,i]perylene	180		7.9	0.41
207-08-9	Benzo[k]fluoranthene	110		7.9	0.80
218-01-9	Chrysene	300		7.9	1.3
53-70-3	Dibenz(a,h)anthracene	51		7.9	0.78
206-44-0	Fluoranthene	270		7.9	0.65
86-73-7	Fluorene	18		7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	150		7.9	0.41
91-20-3	Naphthalene	19		7.9	0.97
85-01-8	Phenanthrene	150		7.9	0.86
129-00-0	Pyrene	270		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	64		20-110
367-12-4	2-Fluorophenol (Surr)	74		24-110
321-60-8	2-Fluorobiphenyl (Surr)	76		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	38		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-4-3 | Lab Sample ID: 240-54676-3

Matrix: Solid | Lab File ID: 50828015.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.07(g) | Date Analyzed: 08/28/2015 14:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	14		7.7	0.88
208-96-8	Acenaphthylene	9.8		7.7	0.41
120-12-7	Anthracene	29		7.7	0.91
56-55-3	Benzo[a]anthracene	87		7.7	0.73
50-32-8	Benzo[a]pyrene	82		7.7	0.74
205-99-2	Benzo[b]fluoranthene	110		7.7	0.69
191-24-2	Benzo[g,h,i]perylene	57		7.7	0.41
207-08-9	Benzo[k]fluoranthene	58		7.7	0.79
218-01-9	Chrysene	86		7.7	1.3
53-70-3	Dibenz(a,h)anthracene	13		7.7	0.77
206-44-0	Fluoranthene	200		7.7	0.64
86-73-7	Fluorene	16		7.7	0.62
193-39-5	Indeno[1,2,3-cd]pyrene	51		7.7	0.41
91-20-3	Naphthalene	10		7.7	0.95
85-01-8	Phenanthrene	110		7.7	0.85
129-00-0	Pyrene	190		7.7	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	78		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	58		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VB-F1-5-3 | Lab Sample ID: 240-54676-4

Matrix: Solid | Lab File ID: 50828009.D

Analysis Method: 8270D | Date Collected: 08/24/2015 09:20

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.05(g) | Date Analyzed: 08/28/2015 11:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.90	U	7.9	0.90
208-96-8	Acenaphthylene	0.41	U	7.9	0.41
120-12-7	Anthracene	7.5	J	7.9	0.92
56-55-3	Benzo[a]anthracene	4.3	J	7.9	0.75
50-32-8	Benzo[a]pyrene	0.76	U	7.9	0.76
205-99-2	Benzo[b]fluoranthene	5.1	J	7.9	0.70
191-24-2	Benzo[g,h,i]perylene	0.41	U	7.9	0.41
207-08-9	Benzo[k]fluoranthene	0.81	U	7.9	0.81
218-01-9	Chrysene	5.8	J	7.9	1.3
53-70-3	Dibenz(a,h)anthracene	0.78	U	7.9	0.78
206-44-0	Fluoranthene	63		7.9	0.65
86-73-7	Fluorene	0.63	U	7.9	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	0.41	U	7.9	0.41
91-20-3	Naphthalene	0.97	U	7.9	0.97
85-01-8	Phenanthrene	5.8	J	7.9	0.86
129-00-0	Pyrene	48		7.9	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		36-110
4165-62-2	Phenol-d5 (Surr)	90		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	75		20-110
367-12-4	2-Fluorophenol (Surr)	86		24-110
321-60-8	2-Fluorobiphenyl (Surr)	75		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F-3-1 | Lab Sample ID: 240-54676-12

Matrix: Solid | Lab File ID: 50828014.D

Analysis Method: 8270D | Date Collected: 08/24/2015 11:30

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.10(g) | Date Analyzed: 08/28/2015 13:50

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.97	U	8.5	0.97
208-96-8	Acenaphthylene	0.45	U	8.5	0.45
120-12-7	Anthracene	11		8.5	1.0
56-55-3	Benzo[a]anthracene	75		8.5	0.80
50-32-8	Benzo[a]pyrene	71		8.5	0.82
205-99-2	Benzo[b]fluoranthene	110		8.5	0.75
191-24-2	Benzo[g,h,i]perylene	54		8.5	0.45
207-08-9	Benzo[k]fluoranthene	46		8.5	0.87
218-01-9	Chrysene	92		8.5	1.4
53-70-3	Dibenz(a,h)anthracene	13		8.5	0.84
206-44-0	Fluoranthene	160		8.5	0.70
86-73-7	Fluorene	0.68	U	8.5	0.68
193-39-5	Indeno[1,2,3-cd]pyrene	44		8.5	0.45
91-20-3	Naphthalene	1.0	U	8.5	1.0
85-01-8	Phenanthrene	44		8.5	0.93
129-00-0	Pyrene	140		8.5	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	92		36-110
4165-62-2	Phenol-d5 (Surr)	79		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	69		20-110
367-12-4	2-Fluorophenol (Surr)	81		24-110
321-60-8	2-Fluorobiphenyl (Surr)	74		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F1-3-2 | Lab Sample ID: 240-54676-7

Matrix: Solid | Lab File ID: 50828017.D

Analysis Method: 8270D | Date Collected: 08/24/2015 14:00

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30.49(g) | Date Analyzed: 08/28/2015 15:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	10		8.0	0.91
208-96-8	Acenaphthylene	0.42	U	8.0	0.42
120-12-7	Anthracene	9.7		8.0	0.93
56-55-3	Benzo[a]anthracene	40		8.0	0.75
50-32-8	Benzo[a]pyrene	44		8.0	0.76
205-99-2	Benzo[b]fluoranthene	65		8.0	0.70
191-24-2	Benzo[g,h,i]perylene	31		8.0	0.42
207-08-9	Benzo[k]fluoranthene	22		8.0	0.81
218-01-9	Chrysene	48		8.0	1.3
53-70-3	Dibenz(a,h)anthracene	0.79	U	8.0	0.79
206-44-0	Fluoranthene	63		8.0	0.66
86-73-7	Fluorene	0.63	U	8.0	0.63
193-39-5	Indeno[1,2,3-cd]pyrene	26		8.0	0.42
91-20-3	Naphthalene	6.1	J	8.0	0.98
85-01-8	Phenanthrene	28		8.0	0.87
129-00-0	Pyrene	61		8.0	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		36-110
4165-62-2	Phenol-d5 (Surr)	82		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		20-110
367-12-4	2-Fluorophenol (Surr)	75		24-110
321-60-8	2-Fluorobiphenyl (Surr)	70		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: D-VS-F1-4-2 | Lab Sample ID: 240-54676-1

Matrix: Solid | Lab File ID: 50828008.D

Analysis Method: 8270D | Date Collected: 08/24/2015 10:15

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 29.68(g) | Date Analyzed: 08/28/2015 11:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.85	U	7.5	0.85
208-96-8	Acenaphthylene	0.39	U	7.5	0.39
120-12-7	Anthracene	0.87	U	7.5	0.87
56-55-3	Benzo[a]anthracene	8.2		7.5	0.70
50-32-8	Benzo[a]pyrene	0.72	U	7.5	0.72
205-99-2	Benzo[b]fluoranthene	15		7.5	0.66
191-24-2	Benzo[g,h,i]perylene	6.0	J	7.5	0.39
207-08-9	Benzo[k]fluoranthene	10		7.5	0.76
218-01-9	Chrysene	15		7.5	1.2
53-70-3	Dibenz(a,h)anthracene	0.74	U	7.5	0.74
206-44-0	Fluoranthene	19		7.5	0.62
86-73-7	Fluorene	0.59	U	7.5	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	4.1	J	7.5	0.39
91-20-3	Naphthalene	5.3	J	7.5	0.92
85-01-8	Phenanthrene	6.0	J	7.5	0.82
129-00-0	Pyrene	16		7.5	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	97		36-110
4165-62-2	Phenol-d5 (Surr)	80		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	67		20-110
367-12-4	2-Fluorophenol (Surr)	74		24-110
321-60-8	2-Fluorobiphenyl (Surr)	73		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	30		10-110

APPENDIX C

SUPPORT DOCUMENTATION

06/C16

Chain of Custody Record

#33 016179

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 8/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FEDEX	1 of 2 COCs
Address: 20251 CENTURY BLVD STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week 30 DAYS ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: MRC SOIL REMEDY				Job / SDG No.:
Site: MRC BLOCK D				
PO # 112IC07483				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
D-VS-F1-4-2	8/24/15	1015	C	SOIL	1			K	
D-VB-F1-1-3		0910						K	
D-VB-F1-4-3		0915						K	
D-VB-F1-5-3		0920						K	
D-VB-F1-10-3		0925						K	
D-DUP05-082415		—						K	
D-VS-F1-3-2		1400						K	
D-VB-F-20-2		1200						K	
D-VB-F-23-2		1205						K	
D-VB-F-24-2		1210						K	
D-VB-F-25-2		1215						K	
~~D-VB~~ D-VS-F-3-1		1130						K	

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Preservation Used: ~~1=Ice~~, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MRC SOIL REMEDY VERIFICATION SAMPLES BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by:	Company: TETRA TECH	Date/Time: 8/24/15 1630	Received by:	Company: TestAmerica	Date/Time: 8/24/15 1635
Relinquished by:	Company: TestAmerica	Date/Time: 8/24/15 1720	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA Canton	Date/Time: 8-25-15 9:30am

Chain of Custody Record #33

016178

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: SCOTT NESBIT	Site Contact: J. MULLIS	Date: 6/24/15	COC No:
Company Name: TETRA TECH	Tel/Fax: 412 559 8133	Lab Contact: J. MCFADDEN	Carrier: FEDEX	2 of 2 COCs
Address: 20251 CENTURY BLVD. STE. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: GERMANTOWN, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3000	TAT if different from Below ____			Walk-in Client:
Fax: 301-528-3000	☐ 2 weeks ☐ 1 week 3 DAYS ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: MRL SOIL REMEDY				Job / SDG No.:
Site: MRL Block D				
P O # 112IL07487				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PAH 8270D	Sample Specific Notes:
D-DVB06-082415	6/24/15	—	C	SOIL	1			X	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: MRL SOIL REMEDY VERIFICATION SAMPLES, BLOCK D AREAS F1 AND F

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by:	Company: Tetra Tech	Date/Time: 6/24/15 1630	Received by:	Company: TestAmerica	Date/Time: 6/24/15 1635
Relinquished by:	Company: TestAmerica	Date/Time: 6/24/15 1720	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA Canton	Date/Time: 6-25-15 9:30 am

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 5M6X6
Canton Facility

Client Tetra Tech Site Name MRC Block D Cooler unpacked by: Jenny Stillee
Cooler Received on 8-25-15 Opened on 8-25-15
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other
Receipt After-hours: Drop-off Date/Time Storage Location
TestAmerica Cooler # No# Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.6 °C Corrected Cooler Temp. 1.6 °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~ ☐ See Multiple Cooler Form
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC432654**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes No

Contacted PM Date by via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION
Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION
Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC Soil Remedy Block D

Report Number: 240-54676-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % soilds value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 8/25/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12) and D-DUP06-082415 (240-54676-13) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/26/2015 and analyzed on 08/28/2015.

The continuing calibration verification (CCV) for analytical batch 195245 had an Rf for the acid surrogate 2,4,6-tribromophenol below method recommendations. The samples associated with this CCV, D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12), D-DUP06-082415 (240-54676-13), (LCS 240-194855/24-A) and (MB 240-194855/23-A), have only BN analytes, therefore, no corrective action was required.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples D-VS-F1-4-2 (240-54676-1), D-VB-F1-1-3 (240-54676-2), D-VB-F1-4-3 (240-54676-3), D-VB-F1-5-3 (240-54676-4), D-VB-F1-10-3 (240-54676-5), D-DUP05-082415 (240-54676-6), D-VS-F1-3-2 (240-54676-7), D-VB-F-20-2 (240-54676-8), D-VB-F-23-2 (240-54676-9), D-VB-F-24-2 (240-54676-10), D-VB-F-25-2 (240-54676-11), D-VS-F-3-1 (240-54676-12) and D-DUP06-082415 (240-54676-13) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/25/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-54676-1	D-VS-F1-4-2	Solid	08/24/2015 1015	08/25/2015 0930
240-54676-2	D-VB-F1-1-3	Solid	08/24/2015 0910	08/25/2015 0930
240-54676-3	D-VB-F1-4-3	Solid	08/24/2015 0915	08/25/2015 0930
240-54676-4	D-VB-F1-5-3	Solid	08/24/2015 0920	08/25/2015 0930
240-54676-5	D-VB-F1-10-3	Solid	08/24/2015 0925	08/25/2015 0930
240-54676-6	D-DUP05-082415	Solid	08/24/2015 0000	08/25/2015 0930
240-54676-7	D-VS-F1-3-2	Solid	08/24/2015 1400	08/25/2015 0930
240-54676-8	D-VB-F-20-2	Solid	08/24/2015 1200	08/25/2015 0930
240-54676-9	D-VB-F-23-2	Solid	08/24/2015 1205	08/25/2015 0930
240-54676-10	D-VB-F-24-2	Solid	08/24/2015 1210	08/25/2015 0930
240-54676-11	D-VB-F-25-2	Solid	08/24/2015 1215	08/25/2015 0930
240-54676-12	D-VS-F-3-1	Solid	08/24/2015 1130	08/25/2015 0930
240-54676-13	D-DUP06-082415	Solid	08/24/2015 0000	08/25/2015 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Percent Moisture	TAL CAN	EPA Moisture	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-54676-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

FIELD DUPLICATE PRECISION							
ANALYTE	**D-VS-F1-4-2**	**QUAL**	**D-DUP05-082415**	**QUAL**	**RPD**	**DIFFERENCE**	**RL**
BENZO(A)ANTHRACENE	8.2		0.7	U	~~168.54~~	7.50 ✓	7.5
BENZO(B)FLUORANTHENE	15		5.5	J	~~92.68~~	9.50 ✓	7.5
BENZO(G,H,I)PERYLENE	6	J	0.39	U	~~175.59~~	5.61 ✓	7.5
BENZO(K)FLUORANTHENE	10		0.76	U	~~171.75~~	9.24 ✓	7.5
CHRYSENE	15		5.2	J	~~97.03~~	9.80 ✓	7.5
FLUORANTHENE	19		7	J	~~92.31~~	12.00 ✓	7.5
INDENO(1,2,3-CD)PYRENE	4.1	J	0.39	U	~~165.26~~	3.71 ✓	7.5
NAPHTHALENE	5.3	J	0.92	U	~~140.84~~	4.38 ✓	7.5
PHENANTHRENE	6	J	0.82	U	~~151.91~~	5.18 ✓	7.5
PYRENE	16		6.8	J	~~80.70~~	9.20 ✓	7.5

FIELD DUPLICATE PRECISION							
ANALYTE	**D-VB-F-23-2**	**QUAL**	**D-DUP06-082415**	**QUAL**	**RPD**	**DIFFERENCE**	**RL**
PYRENE	0.54	U	4.7	J	~~158.78~~	4.16 ✓	8.1

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50808001.D DFTPP Injection Date: 08/08/2015

Instrument ID: A4HP9 DFTPP Injection Time: 15:10

Analysis Batch No.: 192437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.7	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	58.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	54.1	
443	15.0 - 24.0% of mass 442	10.6	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-192437/2	50808002.D	08/08/2015	15:32
	STD4 240-192437/3	50808003.D	08/08/2015	15:57
	STD3 240-192437/4	50808004.D	08/08/2015	16:23
	STD2 240-192437/5	50808005.D	08/08/2015	16:48
	STD1 240-192437/6	50808006.D	08/08/2015	17:14
	STD9 240-192437/7	50808007.D	08/08/2015	17:39
	STD8 240-192437/8	50808008.D	08/08/2015	18:05
	STD7 240-192437/9	50808009.D	08/08/2015	18:31
	STD6 240-192437/10	50808010.D	08/08/2015	18:56
	ICV 240-192437/11	50808011.D	08/08/2015	19:22

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	1.0507	1.0101 0.9685	0.9471 1.0138	1.0009 0.9693	0.9249	Ave		0.9857				4.1		20.0			
N-Nitrosodimethylamine	1.7386	1.8315 1.7326	1.5666 1.7166	1.5534 1.7479	1.6593	Ave		1.6933				5.6		20.0			
Pyridine	2.9419	2.9094 3.0680	2.8523 3.0926	2.6739 2.9843	2.9183	Ave		2.9301				4.5		20.0			
Benzaldehyde	2.2917	2.5527 2.2130	2.5031 2.1901	2.4424 2.0331	2.3995	Ave		2.3282			0.0100	7.6		20.0			
Phenol	2.7275	2.9756 2.6612	2.8714 2.6659	2.8437 2.5576	2.8985	Ave		2.7752			0.8000	5.2		20.0			
Aniline	3.5763	3.7383 3.4794	3.5853 3.5131	3.6458 3.3653	3.7586	Ave		3.5828				3.7		20.0			
Bis(2-chloroethyl)ether	2.4774	2.5427 2.4989	2.5784 2.4791	2.5305 2.3625	2.5783	Ave		2.5060			0.7000	2.8		20.0			
2-Chlorophenol	1.5316	1.4972 1.4855	1.5701 1.5094	1.5501 1.4666	1.5705	Ave		1.5226			0.8000	2.6		20.0			
n-Decane	1.9666	2.1363 1.8867	2.0257 1.9038	2.0886 1.8419	2.1458	Ave		1.9994				5.9		20.0			
1,3-Dichlorobenzene	1.6224	1.6665 1.5684	1.6896 1.5824	1.6854 1.5264	1.6984	Ave		1.6300				4.0		20.0			
1,4-Dichlorobenzene	1.6376	1.7641 1.6199	1.7435 1.6210	1.7045 1.5624	1.6714	Ave		1.6655				4.1		20.0			
Benzyl alcohol	1.2261	1.3291 1.2041	1.2424 1.2382	1.2485 1.1684	1.2032	Ave		1.2325				3.8		20.0			
1,2-Dichlorobenzene	1.5461	1.7892 1.5149	1.6099 1.5504	1.5321 1.4800	1.6158	Ave		1.5798				6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.6778	1.7862 1.6579	1.7153 1.6608	1.7706 1.6037	1.7790	Ave		1.7064			0.7000	3.9		20.0			
bis (2-chloroisopropyl) ether	1.8241	2.0866 1.8215	1.9553 1.7810	1.9534 1.7239	1.9382	Ave		1.8855				6.3		20.0			
Indene	3.0628	3.6792 2.9729	3.4079 3.0008	3.2094 2.8634	3.2873	Ave		3.1855				8.4		20.0			
3 & 4 Methylphenol	1.7521	2.0690 1.7210	1.8102 1.7328	1.7782 1.6651	1.8596	Ave		1.7985				6.9		20.0			
N-Nitrosodi-n-propylamine	1.9356	2.0231 1.9041	2.1439 1.8963	2.0189 1.8320	2.0827	Ave		1.9796			0.5000	5.3		20.0			
Acetophenone	2.7454	3.0582 2.7045	2.9563 2.6982	2.8686 2.6085	2.8967	Ave		2.8170			0.0100	5.4		20.0			
Hexachloroethane	0.7975	0.9610 0.7784	0.8106 0.7900	0.7949 0.7619	0.8389	Ave		0.8166			0.3000	7.7		20.0			
Nitrobenzene	0.7803	0.8598 0.7596	0.7891 0.7476	0.7677 0.7296	0.7655	Ave		0.7749			0.2000	5.0		20.0			
Isophorone	1.2170	1.3027 1.1961	1.2727 1.1901	1.2585 1.1478	1.2232	Ave		1.2260			0.4000	4.1		20.0			
2-Nitrophenol	0.1773	0.1870 0.1798	0.1659 0.1765	0.1874 0.1793	0.1832	Ave		0.1796			0.1000	3.8		20.0			
2,4-Dimethylphenol	0.4834	0.4969 0.4729	0.5427 0.4697	0.5110 0.4506	0.4866	Ave		0.4892			0.2000	5.8		20.0			
Benzoic acid	0.2250	0.1082 0.2329	0.1365 0.2332	0.1754 0.2243	0.2232	Lin1	-0.154	0.2330							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.6898	0.7394 0.6548	0.7082 0.6300	0.6916 0.6178	0.6768	Ave		0.6760			0.3000	6.0		20.0			
2,4-Dichlorophenol	0.3023	0.3059 0.3052	0.3323 0.2990	0.3166 0.2872	0.3006	Ave		0.3062			0.2000	4.4		20.0			
1,2,4-Trichlorobenzene	0.3237	0.3409 0.3215	0.3384 0.3142	0.3348 0.3048	0.3243	Ave		0.3253				3.8		20.0			
Naphthalene	1.2895 1.1112	1.2438 1.0758	1.1943 1.0696	1.1432 1.0303	1.1350	Ave		1.1436			0.7000	7.4		20.0			
4-Chloroaniline	0.4978	0.5301 0.4656	0.5168 0.4704	0.4929 0.4514	0.5206	Ave		0.4932			0.0100	5.8		20.0			
2,6-Dichlorophenol	0.2984	0.3287 0.2852	0.3199 0.2854	0.2918 0.2746	0.2894	Ave		0.2967				6.2		20.0			
Hexachlorobutadiene	0.1960	0.2204 0.1980	0.2035 0.1944	0.2119 0.1900	0.1997	Ave		0.2017			0.0100	5.0		20.0			
Caprolactam	0.1409	0.1388 0.1419	0.1438 0.1399	0.1391 0.1358	0.1273	Ave		0.1384			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4150	0.4399 0.4083	0.4273 0.4081	0.4332 0.3935	0.4207	Ave		0.4183			0.2000	3.6		20.0			
2-Methylnaphthalene	0.7486 0.6820	0.7015 0.6737	0.7581 0.6645	0.7282 0.6449	0.7039	Ave		0.7006			0.4000	5.5		20.0			
1-Methylnaphthalene	0.6596 0.5979	0.6779 0.5840	0.6307 0.5827	0.6421 0.5707	0.6052	Ave		0.6168				6.1		20.0			
Hexachlorocyclopentadiene	0.3238	0.3380 0.3269	0.3225 0.3409	0.3187 0.3517	0.3315	Ave		0.3318			0.0500	3.3		20.0			
1,2,4,5-Tetrachlorobenzene	0.5616	0.6348 0.5335	0.6020 0.5242	0.5925 0.5456	0.5583	Ave		0.5690			0.0100	6.6		20.0			
2,4,6-Trichlorophenol	0.3844	0.3754 0.3748	0.3601 0.3621	0.3970 0.3570	0.3860	Ave		0.3746			0.2000	3.8		20.0			
2,4,5-Trichlorophenol	0.4033	0.3823 0.3828	0.4219 0.3708	0.4237 0.3696	0.4014	Ave		0.3945			0.2000	5.4		20.0			
1,1'-Biphenyl	1.7643 1.4326	1.6040 1.3867	1.4991 1.3481	1.5191 1.3409	1.4484	Ave		1.4826			0.0100	9.1		20.0			
2-Chloronaphthalene	1.3410 1.1199	1.2638 1.1029	1.1879 1.0803	1.2179 1.0709	1.1507	Ave		1.1706			0.8000	7.8		20.0			
2-Nitroaniline	0.6374	0.6182 0.6225	0.6254 0.5863	0.5910 0.5991	0.6070	Ave		0.6109			0.0100	2.9		20.0			
Dimethyl phthalate	1.2435	1.3807 1.2070	1.3523 1.1575	1.3573 1.1581	1.2815	Ave		1.2672			0.0100	7.1		20.0			
1,3-Dinitrobenzene	0.2104	0.1968 0.2006	0.1670 0.2037	0.1943 0.2080	0.1969	Ave		0.1972				6.8		20.0			
2,6-Dinitrotoluene	0.2951	0.2578 0.2887	0.2674 0.2782	0.2866 0.2779	0.2919	Ave		0.2804				4.6		20.0			
Acenaphthylene	2.3046 1.7995	1.8987 1.7585	1.9144 1.7238	1.8632 1.7180	1.8393	Ave		1.8689			0.9000	9.5		20.0			
3-Nitroaniline	0.3007	0.3219 0.2974	0.2899 0.2966	0.3270 0.3019	0.3095	Ave		0.3056			0.0100	4.2		20.0			
2,4-Dinitrophenol	0.1275	0.0478 0.1453	0.0820 0.1525	0.1022 0.1586	0.1261	Lin1	-0.141	0.1525			0.0100				0.9950		0.9900
Acenaphthene	1.4417 1.1296	1.3255 1.1034	1.2507 1.0685	1.2562 1.0642	1.1657	Ave		1.2006			0.9000	10.7		20.0			
4-Nitrophenol	0.2697	0.2366 0.2711	0.2372 0.2635	0.2449 0.2662	0.2494	Ave		0.2548				5.7		20.0			
2,4-Dinitrotoluene	0.3776	0.3163 0.3774	0.3726 0.3832	0.3789 0.3913	0.3949	Ave		0.3740			0.2000	6.6		20.0			
Dibenzofuran	1.9190 1.5833	1.7636 1.5544	1.7289 1.5014	1.6857 1.4906	1.6088	Ave		1.6484			0.8000	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3121	0.3049 0.3031	0.3349 0.2962	0.3137 0.3100	0.3430	Ave		0.3147			0.0100	5.1		20.0			
Diethyl phthalate	1.1298	1.4244 1.1521	1.3346 1.1522	1.2916 1.2021	1.2694	Ave		1.2445			0.0100	8.3		20.0			
Hexadecane	0.9788	1.0965 0.9490	1.0959 0.8654	1.0927 +++++	1.0362	Ave		1.0164				8.8		20.0			
4-Chlorophenyl phenyl ether	0.6021	0.6905 0.5919	0.6487 0.5640	0.6285 0.5648	0.6192	Ave		0.6137			0.4000	7.0		20.0			
4-Nitroaniline	0.2980	0.2961 0.3174	0.3130 0.2948	0.3125 0.2917	0.2505	Ave		0.2967			0.0100	7.1		20.0			
Fluorene	1.5806 1.3013	1.5036 1.2654	1.4004 1.1824	1.4416 +++++	1.3531	Ave		1.3785			0.9000	9.5		20.0			
4,6-Dinitro-2-methylphenol	0.1291	0.0642 0.1274	0.0732 0.1279	0.0863 0.1215	0.1102	Lin1	-0.090	0.1272			0.0100				0.9970		0.9900
N-Nitrosodiphenylamine	0.5765	0.6364 0.5142	0.6152 0.5061	0.5960 0.5069	0.6007	Ave		0.5690			0.0100	9.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.7542	1.6534 1.5590	1.5970 1.4512	1.6020 1.3703	1.6476	Ave		1.5800				7.6		20.0			
Azobenzene	1.7542	1.6474 1.5602	1.6046 1.4524	1.6031 1.3703	1.6476	Ave		1.5800				7.6		20.0			
4-Bromophenyl phenyl ether	0.2327	0.2342 0.2004	0.2240 0.1903	0.2122 0.1886	0.2270	Ave		0.2137			0.1000	8.7		20.0			
Hexachlorobenzene	0.2109 0.2214	0.2358 0.2039	0.2114 0.1957	0.2132 0.1967	0.2138	Ave		0.2114			0.1000	5.9		20.0			
Atrazine	0.2217	0.2420 0.2031	0.2157 0.2014	0.1996 0.1987	0.2233	Ave		0.2132			0.0100	7.2		20.0			
n-Octadecane	0.6457	0.7028 0.5618	0.6904 0.5210	0.6859 +++++	0.6869	Ave		0.6421				11.2		20.0			
Pentachlorophenol	0.1596	0.1256 0.1561	0.1322 0.1531	0.1366 0.1525	0.1391	Ave		0.1444			0.0500	8.7		20.0			
Phenanthrene	1.6010 1.2026	1.3549 1.1551	1.3323 1.1486	1.2514 1.1327	1.2373	Ave		1.2684			0.7000	11.6		20.0			
Anthracene	1.4811 1.2278	1.3662 1.1789	1.2617 1.1841	1.2599 1.1455	1.2471	Ave		1.2614			0.7000	8.3		20.0			
Carbazole	1.1671	1.1870 1.0407	1.1117 0.9644	0.9657 0.9369	1.0273	Ave		1.0501			0.0100	9.1		20.0			
Di-n-butyl phthalate	1.3893	1.3052 1.2898	1.0910 1.2754	1.0298 1.2661	1.3521	Ave		1.2498			0.0100	10.0		20.0			
Fluoranthene	1.5229 1.4101	1.3508 1.2779	1.2101 1.2357	1.0121 1.2101	1.2931	Ave		1.2803			0.6000	11.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.6304	0.2490 0.6216	0.3249 0.6673	0.3821 0.6196	0.5157	Lin1	-0.578	0.6441							0.9960		0.9900
Pyrene	1.2205 1.1449	1.2607 1.1346	1.0971 1.1825	1.0044 1.1744	1.1547	Ave		1.1526			0.6000	6.4		20.0			
Butyl benzyl phthalate	0.5428	0.5166 0.5480	0.5172 0.5578	0.5234 0.5537	0.5436	Ave		0.5379			0.0100	3.1		20.0			
Bis(2-ethylhexyl) phthalate	0.7521	0.6275 0.7586	0.6944 0.7769	0.7240 0.7630	0.7525	Ave		0.7311			0.0100	6.7		20.0			
3,3'-Dichlorobenzidine	0.3584	0.3299 0.3685	0.3491 0.3827	0.3479 0.3840	0.3553	Ave		0.3595			0.0100	5.1		20.0			
Benzo[a]anthracene	1.4667 1.1955	1.2606 1.1964	1.2234 1.2062	1.1893 1.1844	1.1862	Ave		1.2343			0.8000	7.3		20.0			
Chrysene	1.3263 1.1277	1.2357 1.1063	1.1615 1.1229	1.1457 1.0988	1.0973	Ave		1.1580			0.7000	6.6		20.0			
Di-n-octyl phthalate	1.4642	1.2441 1.4703	1.3797 1.4649	1.4025 1.4554	1.4745	Ave		1.4194			0.0100	5.6		20.0			
Benzo[b]fluoranthene	1.3115 1.2229	1.2013 1.1232	1.1713 1.1953	1.1449 1.1248	1.1720	Ave		1.1853			0.7000	4.9		20.0			
Benzo[k]fluoranthene	1.1150 1.2186	1.1611 1.2437	1.1963 1.1915	1.2015 1.2110	1.2457	Ave		1.1983			0.7000	3.4		20.0			
Benzo[a]pyrene	1.0899 1.1727	1.1494 1.1321	1.0877 1.1487	1.0932 1.1211	1.1581	Ave		1.1281			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2603 1.1716	1.1389 1.1670	1.1614 1.1641	1.1628 1.1363	1.1899	Ave		1.1725			0.5000	3.1		20.0			
Dibenz(a,h)anthracene	0.7487 0.9560	0.8988 0.9381	0.9165 0.9526	0.9580 0.9384	0.9657	Ave		0.9192			0.4000	7.3		20.0			
Benzo[g,h,i]perylene	0.9778 0.9594	0.9898 0.9330	1.0456 0.9373	0.9872 0.9254	1.0110	Ave		0.9741			0.5000	4.1		20.0			
2-Fluorophenol (Surr)	1.7370	1.7310 1.7444	1.6988 1.8010	1.7526 1.7445	1.7940	Ave		1.7504				1.9		20.0			
Phenol-d5 (Surr)	2.4673	2.4948 2.3930	2.4936 2.4296	2.5993 2.3282	2.5976	Ave		2.4754				3.8		20.0			
Nitrobenzene-d5 (Surr)	0.9162 0.7602	0.7659 0.7503	0.7791 0.7458	0.7895 0.7151	0.7492	Ave		0.7746				7.4		20.0			
2-Fluorobiphenyl (Surr)	1.7007 1.2314	1.3876 1.2143	1.3225 1.1723	1.2754 1.1999	1.2545	Ave		1.3065				12.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1238	0.1244 0.1280	0.1246 0.1279	0.1370 0.1362	0.1388	Ave		0.1301				4.8		20.0			
Terphenyl-d14 (Surr)	0.7886 0.7441	0.7476 0.7224	0.7023 0.7506	0.7065 0.7417	0.7219	Ave		0.7362				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-192437/6	50808006.D
Level 2	STD2 240-192437/5	50808005.D
Level 3	STD3 240-192437/4	50808004.D
Level 4	STD4 240-192437/3	50808003.D
Level 5	STD5 240-192437/2	50808002.D
Level 6	STD6 240-192437/10	50808010.D
Level 7	STD7 240-192437/9	50808009.D
Level 8	STD8 240-192437/8	50808008.D
Level 9	STD9 240-192437/7	50808007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	348735	14748 480066	28651 626504	60904 736046	126971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	577074	26741 858844	47391 1060851	94518 1327269	227788	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	976486	42479 1520777	86283 1911219	162701 2266197	400630	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1521346	74541 2193924	151440 2706938	297231 3087783	658809	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	905305	43446 1319142	86861 1647547	173035 1942126	397911	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1187061	54582 1724712	108459 2171115	221840 2555455	515980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	822301	37125 1238678	78000 1532066	153973 1793963	353959	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	508374	21860 736363	47497 932802	94318 1113647	215606	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	652751	31191 935207	61280 1176546	127088 1398650	294584	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	538509	24332 777467	51113 977962	102552 1159112	233158	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	543537	25757 802952	52742 1001801	103712 1186440	229456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	406965	19405 596882	37583 765211	75967 887274	165174	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	513185	26123 750941	48700 958149	93223 1123840	221813	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	556910	26079 821807	51889 1026399	107735 1217774	244222	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCB	Ave	605450	30466 902898	59150 1100642	118862 1309092	266080	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	2033188	107438 2947267	206181 3708975	390567 4348792	902569	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	581570	30208 853109	54759 1070876	108201 1264425	255293	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	642468	29538 943832	64855 1171918	122845 1391133	285919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	911256	44651 1340610	89429 1667471	174546 1980829	397661	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	264717	14031 385831	24521 488197	48367 578528	115168	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1009143	49716 1464660	91825 1834318	180479 2179651	429634	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1573975	75328 2306320	148099 2919990	295838 3429080	686479	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	229330	10815 346748	19303 432947	44063 535538	102806	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	625159	28732 911837	63152 1152376	120125 1346298	273113	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	582032	12518 898025	31759 1144225	82463 1340080	250489	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	892137	42755 1262519	82411 1545742	162584 1845741	379807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	390996	17690 588409	38673 733732	74427 858054	168722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	418611	19714 619932	39376 770941	78697 910611	182005	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	15946 1437139	71923 2074304	138972 2624301	268744 3078018	636998	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	643800	30653 897699	60135 1154207	115864 1348642	292166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	385861	19008 549819	37223 700348	68597 820504	162413	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	253431	12745 381768	23685 477023	49817 567647	112094	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	364519	16055 547038	33462 686532	65379 811192	142931	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	536692	25435 787190	49724 1001319	101835 1175721	236131	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	9257 882085	40564 1298906	88221 1630365	171176 1926631	395021	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8157 773268	39197 1126003	73395 1429672	150940 1704865	339675	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 239630	10961 367546	21658 493493	42153 599379	105526	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 415553	20586 599829	40424 758872	78376 929873	177692	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 284421	12174 421463	24184 524144	52518 608453	122851	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 298400	12398 430387	28330 536814	56043 629967	127748	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	11953 1060081	52017 1559237	100669 1951610	200935 2285357	461017	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	9085 828709	40984 1240138	79773 1563926	161094 1825114	366260	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 471683	20049 699945	41994 848780	78176 1021102	193207	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 920174	44777 1357116	90809 1675648	179540 1973816	407874	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 155700	6381 225531	11213 294859	25707 354552	62669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 218340	8359 324625	17954 402682	37915 473719	92898	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	15613 1331535	61576 1977218	128554 2495399	246450 2928044	585443	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 222522	10440 334378	19469 429409	43252 514581	98521	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 188749	3098 326751	11014 441587	27041 540489	80255	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	9767 835839	42985 1240644	83990 1546784	166162 1813794	371031	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 399082	15348 609637	31856 762923	64800 907419	158751	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 279426	10256 424364	25022 554784	50118 666967	125683	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	13001 1171581	57195 1747724	116101 2173433	222974 2540447	512071	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 230954	9889 340807	22489 428726	41501 528287	109169	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 836034	46193 1295386	89620 1667974	170844 2048863	404042	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 724284	35559 1067022	73591 1252765	144537 +++++	329826	 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	445560	22392 665512	43559 816441	83133 962626	197069	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	220506	9601 356918	21022 426732	41338 497107	79723	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	10708 962937	48762 1422802	94043 1711668	190687 +++++	430663	0.100 10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	277821	6783 443487	15869 576383	37229 676095	108301	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	1240178	67183 1789467	133421 2280789	257163 2821761	590399	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1886924	87274 2712639	173185 3269697	345638 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1886926	86959 2714607	174004 3272463	345872 3813755	809713	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	250357	12360 348656	24289 428730	45785 524932	111567	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2373 238135	12449 354699	22930 440914	45997 547412	105048	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	477053	25545 706687	46773 907748	86109 1106294	219502	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
n-Octadecane	PHN	Ave	694572	37098 977433	74873 1173913	147982 +++++	337589	10.0	0.500 15.0	1.00 20.0	2.00 +++++	5.00
Pentachlorophenol	PHN	Ave	343376	13264 543286	28669 689714	58963 848987	136704	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	18018 1293560	71518 2009766	144477 2587934	269978 3152575	608063	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16669 1320738	72119 2051174	136819 2668003	271831 3188107	612851	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1255417	62656 1810711	120555 2172873	208338 2607546	504871	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1494397	68898 2244190	118309 2873656	222183 3523798	664456	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	17139 1516770	71303 2223508	131229 2784263	218365 3367991	635495	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	1689679	30025 2544524	80286 3332794	171667 3772367	612312	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	15075 1534256	75998 2322510	135569 2953172	225647 3575435	685510	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	727479	31142 1121736	63909 1393012	117594 1685604	322729	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1007968	37831 1552760	85802 1940282	162649 2323018	446737	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-54676-1 Analy Batch No.: 192437

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/08/2015 15:32 Calibration End Date: 08/08/2015 18:56 Calibration ID: 30010

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	960742	39775 1508689	86282 1911470	156321 2337877	421935	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	18116 1602133	75992 2448834	151178 3012133	267203 3605677	704257	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16381 1511250	74494 2264544	143530 2804338	257394 3345108	651460	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1738665	64439 2759211	144523 3394385	282293 4145293	762125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14418 1452053	62224 2107890	122697 2769607	230451 3203877	605774	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	12257 1447013	60142 2333981	125321 2760832	241847 3449294	643840	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	11982 1392471	59536 2124661	113938 2661689	220045 3193194	598596	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13855 1391143	58989 2190149	121662 2697489	234046 3236554	615026	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	8231 1135235	46557 1760496	96008 2207341	192826 2672732	499134	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	10749 1139184	51266 1750849	109534 2171925	198700 2635895	522578	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	576535	25274 864684	51389 1112998	106639 1324714	246277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	818935	36426 1186192	75432 1501529	158160 1767921	356600	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	11330 983191	44288 1446708	90660 1829936	185604 2136296	420480	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	11522 911203	45001 1365327	88812 1697107	168703 2045135	399288	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	91642	4033 143962	8365 185109	18116 232182	44194	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	9740 997147	45071 1478623	86783 1874579	158736 2258159	428610	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.9857	0.9275		9.41	10.0	-5.9	30.0
N-Nitrosodimethylamine	Ave	1.693	1.412		8.34	10.0	-16.6	30.0
Pyridine	Ave	2.930	2.785		9.51	10.0	-4.9	30.0
Benzaldehyde	Ave	2.328	2.175	0.0100	18.7	20.0	-6.6	30.0
Phenol	Ave	2.775	2.554	0.8000	9.20	10.0	-8.0	30.0
Aniline	Ave	3.583	3.360		9.38	10.0	-6.2	30.0
Bis(2-chloroethyl)ether	Ave	2.506	2.342	0.7000	9.35	10.0	-6.5	30.0
2-Chlorophenol	Ave	1.523	1.456	0.8000	9.57	10.0	-4.3	30.0
n-Decane	Ave	1.999	1.851		9.26	10.0	-7.4	30.0
1,3-Dichlorobenzene	Ave	1.630	1.511		9.27	10.0	-7.3	30.0
1,4-Dichlorobenzene	Ave	1.666	1.549		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.232	1.156		9.38	10.0	-6.2	30.0
1,2-Dichlorobenzene	Ave	1.580	1.452		9.19	10.0	-8.1	30.0
2-Methylphenol	Ave	1.706	1.603	0.7000	9.40	10.0	-6.0	30.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.734		9.20	10.0	-8.0	30.0
Indene	Ave	3.185	2.775		17.4	20.0	-12.9	30.0
3 & 4 Methylphenol	Ave	1.799	1.691		9.40	10.0	-6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.980	1.832	0.5000	9.26	10.0	-7.4	30.0
Acetophenone	Ave	2.817	2.606	0.0100	9.25	10.0	-7.5	30.0
Hexachloroethane	Ave	0.8166	0.7562	0.3000	9.26	10.0	-7.4	30.0
Nitrobenzene	Ave	0.7749	0.7514	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.226	1.229	0.4000	10.0	10.0	0.2	30.0
2-Nitrophenol	Ave	0.1796	0.1768	0.1000	9.85	10.0	-1.5	30.0
2,4-Dimethylphenol	Ave	0.4892	0.4595	0.2000	9.39	10.0	-6.1	30.0
Benzoic acid	Lin1		0.2310		20.5	20.0	2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.6699	0.3000	9.91	10.0	-0.9	30.0
2,4-Dichlorophenol	Ave	0.3062	0.2971	0.2000	9.70	10.0	-3.0	30.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.3171		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.144	1.113	0.7000	9.73	10.0	-2.7	30.0
4-Chloroaniline	Ave	0.4932	0.4594	0.0100	9.31	10.0	-6.9	30.0
2,6-Dichlorophenol	Ave	0.2967	0.2905		9.79	10.0	-2.1	30.0
Hexachlorobutadiene	Ave	0.2017	0.1950	0.0100	9.66	10.0	-3.4	30.0
Caprolactam	Ave	0.1384	0.1411	0.0100	20.4	20.0	1.9	30.0
4-Chloro-3-methylphenol	Ave	0.4183	0.4140	0.2000	9.90	10.0	-1.0	30.0
2-Methylnaphthalene	Ave	0.7006	0.6322	0.4000	9.02	10.0	-9.8	30.0
1-Methylnaphthalene	Ave	0.6168	0.5963		9.67	10.0	-3.3	30.0
Hexachlorocyclopentadiene	Ave	0.3318	0.3310	0.0500	9.98	10.0	-0.2	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5404	0.0100	9.50	10.0	-5.0	30.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3775	0.2000	10.1	10.0	0.8	30.0
2,4,5-Trichlorophenol	Ave	0.3945	0.4015	0.2000	10.2	10.0	1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.483	1.376	0.0100	9.28	10.0	-7.2	30.0
2-Chloronaphthalene	Ave	1.171	1.122	0.8000	9.58	10.0	-4.2	30.0
2-Nitroaniline	Ave	0.6109	0.6343	0.0100	10.4	10.0	3.8	30.0
Dimethyl phthalate	Ave	1.267	1.251	0.0100	9.87	10.0	-1.3	30.0
1,3-Dinitrobenzene	Ave	0.1972	0.2069		10.5	10.0	4.9	30.0
2,6-Dinitrotoluene	Ave	0.2804	0.2980		10.6	10.0	6.2	30.0
Acenaphthylene	Ave	1.869	1.715	0.9000	9.18	10.0	-8.2	30.0
3-Nitroaniline	Ave	0.3056	0.3020	0.0100	9.88	10.0	-1.2	30.0
2,4-Dinitrophenol	Lin1		0.1298	0.0100	17.9	20.0	-10.3	30.0
Acenaphthene	Ave	1.201	1.120	0.9000	9.33	10.0	-6.7	30.0
4-Nitrophenol	Ave	0.2548	0.2733		21.5	20.0	7.3	30.0
2,4-Dinitrotoluene	Ave	0.3740	0.3636	0.2000	9.72	10.0	-2.8	30.0
Dibenzofuran	Ave	1.648	1.530	0.8000	9.28	10.0	-7.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.3025	0.0100	9.61	10.0	-3.9	30.0
Diethyl phthalate	Ave	1.245	1.122	0.0100	9.01	10.0	-9.9	30.0
Hexadecane	Ave	1.016	0.9587		9.43	10.0	-5.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5942	0.4000	9.68	10.0	-3.2	30.0
4-Nitroaniline	Ave	0.2967	0.3197	0.0100	10.8	10.0	7.7	30.0
Fluorene	Ave	1.379	1.273	0.9000	9.23	10.0	-7.7	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1259	0.0100	20.5	20.0	2.5	30.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5442	0.0100	19.1	20.0	-4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.770		11.2	10.0	12.1	30.0
Azobenzene	Ave	1.580	1.770		11.2	10.0	12.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.2183	0.1000	10.2	10.0	2.1	30.0
Hexachlorobenzene	Ave	0.2114	0.2155	0.1000	10.2	10.0	1.9	30.0
Atrazine	Ave	0.2132	0.2144	0.0100	20.1	20.0	0.5	30.0
n-Octadecane	Ave	0.6421	0.6157		9.59	10.0	-4.1	30.0
Pentachlorophenol	Ave	0.1444	0.1645	0.0500	22.8	20.0	13.9	30.0
Phenanthrene	Ave	1.268	1.145	0.7000	9.03	10.0	-9.7	30.0
Anthracene	Ave	1.261	1.182	0.7000	9.37	10.0	-6.3	30.0
Carbazole	Ave	1.050	1.113	0.0100	10.6	10.0	6.0	30.0
Di-n-butyl phthalate	Ave	1.250	1.342	0.0100	10.7	10.0	7.4	30.0
Fluoranthene	Ave	1.280	1.325	0.6000	10.4	10.0	3.5	30.0
Benzidine	Lin1		0.5963		19.4	20.0	-2.9	30.0
Pyrene	Ave	1.153	1.127	0.6000	9.78	10.0	-2.2	30.0
Butyl benzyl phthalate	Ave	0.5379	0.5437	0.0100	10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7396	0.0100	10.1	10.0	1.2	30.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3420	0.0100	19.0	20.0	-4.9	30.0
Benzo[a]anthracene	Ave	1.234	1.176	0.8000	9.53	10.0	-4.7	30.0
Chrysene	Ave	1.158	1.138	0.7000	9.83	10.0	-1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: ICV 240-192437/11 | Calibration Date: 08/08/2015 19:22

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50808011.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Di-n-octyl phthalate	Ave	1.419	1.449	0.0100	10.2	10.0	2.1	30.0
Benzo[b]fluoranthene	Ave	1.185	1.165	0.7000	9.83	10.0	-1.7	30.0
Benzo[k]fluoranthene	Ave	1.198	1.236	0.7000	10.3	10.0	3.2	30.0
Benzo[a]pyrene	Ave	1.128	1.119	0.7000	9.92	10.0	-0.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.136	0.5000	9.68	10.0	-3.2	30.0
Dibenz(a,h)anthracene	Ave	0.9192	0.9455	0.4000	10.3	10.0	2.9	30.0
Benzo[g,h,i]perylene	Ave	0.9741	0.9528	0.5000	9.78	10.0	-2.2	30.0
2-Fluorophenol (Surr)	Ave	1.750	1.759		10.1	10.0	0.5	30.0
Phenol-d5 (Surr)	Ave	2.475	2.500		10.1	10.0	1.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7826		10.1	10.0	1.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.304		9.98	10.0	-0.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.1340		10.3	10.0	3.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7881		10.7	10.0	7.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50828001.D DFTPP Injection Date: 08/28/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:25

Analysis Batch No.: 195245

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.2	
70	Less than 2.0% of mass 69	0.5	(0.6)1
127	25.0 - 75.0% of mass 198	55.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.9	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	7.8	
442	40.0 - 110.0% of mass 198	45.9	
443	15.0 - 24.0% of mass 442	8.7	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-195245/2	50828002.D	08/28/2015	07:46
	MB 240-194855/23-A	50828003.D	08/28/2015	08:35
	LCS 240-194855/24-A	50828004.D	08/28/2015	08:59
D-DUP06-082415	240-54676-13	50828005.D	08/28/2015	10:11
D-VB-F-23-2	240-54676-9	50828006.D	08/28/2015	10:36
D-VB-F-24-2	240-54676-10	50828007.D	08/28/2015	11:00
D-VS-F1-4-2	240-54676-1	50828008.D	08/28/2015	11:24
D-VB-F1-5-3	240-54676-4	50828009.D	08/28/2015	11:49
D-DUP05-082415	240-54676-6	50828010.D	08/28/2015	12:13
D-VB-F1-1-3	240-54676-2	50828011.D	08/28/2015	12:37
D-VB-F-20-2	240-54676-8	50828012.D	08/28/2015	13:01
D-VB-F-25-2	240-54676-11	50828013.D	08/28/2015	13:26
D-VS-F-3-1	240-54676-12	50828014.D	08/28/2015	13:50
D-VB-F1-4-3	240-54676-3	50828015.D	08/28/2015	14:14
D-VB-F1-10-3	240-54676-5	50828016.D	08/28/2015	14:38
D-VS-F1-3-2	240-54676-7	50828017.D	08/28/2015	15:03

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID (1): CCV 240-195245/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 08/28/2015 07:46

ANALYTE	RT	RESOLUTION (%)
2-Fluorophenol (Surr)	4.90	100.0
Phenol-d5 (Surr)	5.84	100.0
Nitrobenzene-d5 (Surr)	6.65	100.0
Naphthalene	7.31	100.0
2-Fluorobiphenyl (Surr)	8.19	100.0
Acenaphthylene	8.67	100.0
Acenaphthene	8.82	100.0
Fluorene	9.25	100.0
2,4,6-Tribromophenol (Surr)	9.46	100.0
Phenanthrene	10.07	100.0
Anthracene	10.11	100.0
Fluoranthene	11.08	100.0
Pyrene	11.28	100.0
Terphenyl-d14 (Surr)	11.37	100.0
Benzo[a]anthracene	12.29	100.0
Chrysene	12.32	100.0
Benzo[b]fluoranthene	13.41	41.10
Benzo[k]fluoranthene	13.44	100.0
Benzo[a]pyrene	13.83	100.0
Indeno[1,2,3-cd]pyrene	15.64	100.0
Dibenz(a,h)anthracene	15.65	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 | Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.693	2.052		12.1	10.0	21.2*	20.0
Pyridine	Ave	2.930	3.337		11.4	10.0	13.9	20.0
Benzaldehyde	Ave	2.328	2.329	0.0100	20.0	20.0	0.0	20.0
Phenol	Ave	2.775	3.020	0.8000	10.9	10.0	8.8	20.0
Aniline	Ave	3.583	3.722		10.4	10.0	3.9	20.0
Bis(2-chloroethyl)ether	Ave	2.506	2.610	0.7000	10.4	10.0	4.1	20.0
2-Chlorophenol	Ave	1.523	1.470	0.8000	9.65	10.0	-3.5	20.0
n-Decane	Ave	1.999	2.285		11.4	10.0	14.3	20.0
1,3-Dichlorobenzene	Ave	1.630	1.549		9.50	10.0	-5.0	20.0
1,4-Dichlorobenzene	Ave	1.666	1.608		9.65	10.0	-3.5	20.0
Benzyl alcohol	Ave	1.232	1.128		9.16	10.0	-8.4	20.0
1,2-Dichlorobenzene	Ave	1.580	1.493		9.45	10.0	-5.5	20.0
2-Methylphenol	Ave	1.706	1.608	0.7000	9.42	10.0	-5.8	20.0
bis (2-chloroisopropyl) ether	Ave	1.886	1.736		9.21	10.0	-7.9	20.0
Indene	Ave	3.185	2.943		18.5	20.0	-7.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.980	2.055	0.5000	10.4	10.0	3.8	20.0
Acetophenone	Ave	2.817	2.625	0.0100	9.32	10.0	-6.8	20.0
3 & 4 Methylphenol	Ave	1.799	1.694		9.42	10.0	-5.8	20.0
Hexachloroethane	Ave	0.8166	0.7566	0.3000	9.27	10.0	-7.3	20.0
Nitrobenzene	Ave	0.7749	0.7918	0.2000	10.2	10.0	2.2	20.0
Isophorone	Ave	1.226	1.248	0.4000	10.2	10.0	1.8	20.0
2-Nitrophenol	Ave	0.1796	0.1777	0.1000	9.90	10.0	-1.0	20.0
2,4-Dimethylphenol	Ave	0.4892	0.4612	0.2000	9.43	10.0	-5.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.6760	0.7060	0.3000	10.4	10.0	4.4	20.0
Benzoic acid	Lin1		0.1312		11.9	20.0	-40.4*	20.0
2,4-Dichlorophenol	Ave	0.3062	0.2742	0.2000	8.96	10.0	-10.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3253	0.2973		9.14	10.0	-8.6	20.0
Naphthalene	Ave	1.144	1.045	0.7000	9.14	10.0	-8.6	20.0
4-Chloroaniline	Ave	0.4932	0.4550	0.0100	9.23	10.0	-7.7	20.0
2,6-Dichlorophenol	Ave	0.2967	0.2698		9.09	10.0	-9.1	20.0
Hexachlorobutadiene	Ave	0.2017	0.1672	0.0100	8.29	10.0	-17.1	20.0
Caprolactam	Ave	0.1384	0.1443	0.0100	20.9	20.0	4.3	20.0
4-Chloro-3-methylphenol	Ave	0.4183	0.3854	0.2000	9.21	10.0	-7.9	20.0
2-Methylnaphthalene	Ave	0.7006	0.6381	0.4000	9.11	10.0	-8.9	20.0
1-Methylnaphthalene	Ave	0.6168	0.5532		8.97	10.0	-10.3	20.0
Hexachlorocyclopentadiene	Ave	0.3318	0.1841	0.0500	5.55	10.0	-44.5*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5690	0.5160	0.0100	9.07	10.0	-9.3	20.0
2,4,6-Trichlorophenol	Ave	0.3746	0.3404	0.2000	9.09	10.0	-9.1	20.0
2,4,5-Trichlorophenol	Ave	0.3945	0.3438	0.2000	8.72	10.0	-12.8	20.0
1,1'-Biphenyl	Ave	1.483	1.352	0.0100	9.12	10.0	-8.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 | Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 | Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.171	1.080	0.8000	9.23	10.0	-7.7	20.0
2-Nitroaniline	Ave	0.6109	0.6635	0.0100	10.9	10.0	8.6	20.0
Dimethyl phthalate	Ave	1.267	1.177	0.0100	9.29	10.0	-7.1	20.0
1,3-Dinitrobenzene	Ave	0.1972	0.2199		11.1	10.0	11.5	20.0
2,6-Dinitrotoluene	Ave	0.2804	0.2938		10.5	10.0	4.8	20.0
Acenaphthylene	Ave	1.869	1.721	0.9000	9.21	10.0	-7.9	20.0
3-Nitroaniline	Ave	0.3056	0.3060	0.0100	10.0	10.0	0.1	20.0
2,4-Dinitrophenol	Lin1		0.1164	0.0100	16.2	20.0	-19.1	20.0
Acenaphthene	Ave	1.201	1.064	0.9000	8.87	10.0	-11.3	20.0
4-Nitrophenol	Ave	0.2548	0.2414		18.9	20.0	-5.3	20.0
2,4-Dinitrotoluene	Ave	0.3740	0.3756	0.2000	10.0	10.0	0.4	20.0
Dibenzofuran	Ave	1.648	1.481	0.8000	8.98	10.0	-10.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3147	0.2559	0.0100	8.13	10.0	-18.7	20.0
Diethyl phthalate	Ave	1.245	1.102	0.0100	8.85	10.0	-11.5	20.0
Hexadecane	Ave	1.016	0.9935		9.78	10.0	-2.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6137	0.5504	0.4000	8.97	10.0	-10.3	20.0
4-Nitroaniline	Ave	0.2967	0.3280	0.0100	11.1	10.0	10.5	20.0
Fluorene	Ave	1.379	1.188	0.9000	8.62	10.0	-13.8	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1244	0.0100	20.3	20.0	1.3	20.0
N-Nitrosodiphenylamine	Ave	0.5690	0.5102	0.0100	17.9	20.0	-10.3	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.579	1.580		10.0	10.0	0.0	20.0
Azobenzene	Ave	1.580	1.583		10.0	10.0	0.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2137	0.1874	0.1000	8.77	10.0	-12.3	20.0
Hexachlorobenzene	Ave	0.2114	0.1775	0.1000	8.40	10.0	-16.0	20.0
Atrazine	Ave	0.2132	0.2115	0.0100	19.8	20.0	-0.8	20.0
n-Octadecane	Ave	0.6421	0.6731		10.5	10.0	4.8	20.0
Pentachlorophenol	Ave	0.1444	0.0950	0.0500	13.2	20.0	-34.2*	20.0
Phenanthrene	Ave	1.268	1.135	0.7000	8.95	10.0	-10.5	20.0
Anthracene	Ave	1.261	1.145	0.7000	9.08	10.0	-9.2	20.0
Carbazole	Ave	1.050	1.055	0.0100	10.0	10.0	0.4	20.0
Di-n-butyl phthalate	Ave	1.250	1.291	0.0100	10.3	10.0	3.3	20.0
Fluoranthene	Ave	1.280	1.213	0.6000	9.47	10.0	-5.3	20.0
Benzidine	Lin1		0.7251		23.4	20.0	17.1	20.0
Pyrene	Ave	1.153	1.210	0.6000	10.5	10.0	4.9	20.0
Butyl benzyl phthalate	Ave	0.5379	0.5793	0.0100	10.8	10.0	7.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7311	0.7835	0.0100	10.7	10.0	7.2	20.0
3,3'-Dichlorobenzidine	Ave	0.3595	0.3886	0.0100	21.6	20.0	8.1	20.0
Benzo[a]anthracene	Ave	1.234	1.177	0.8000	9.53	10.0	-4.7	20.0
Chrysene	Ave	1.158	1.123	0.7000	9.70	10.0	-3.0	20.0
Di-n-octyl phthalate	Ave	1.419	1.603	0.0100	11.3	10.0	13.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab Sample ID: CCV 240-195245/2 Calibration Date: 08/28/2015 07:46

Instrument ID: A4HP9 Calib Start Date: 08/08/2015 15:32

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 08/08/2015 18:56

Lab File ID: 50828002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.185	1.169	0.7000	9.87	10.0	-1.3	20.0
Benzo[k]fluoranthene	Ave	1.198	1.281	0.7000	10.7	10.0	6.9	20.0
Benzo[a]pyrene	Ave	1.128	1.152	0.7000	10.2	10.0	2.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.172	1.239	0.5000	10.6	10.0	5.6	20.0
Dibenz(a,h)anthracene	Ave	0.9192	1.011	0.4000	11.0	10.0	10.0	20.0
Benzo[g,h,i]perylene	Ave	0.9741	1.028	0.5000	10.6	10.0	5.5	20.0
1,4-Dioxane	Ave	0.9857			0.000490	10.0		
2-Fluorophenol (Surr)	Ave	1.750	1.823		10.4	10.0	4.1	20.0
Phenol-d5 (Surr)	Ave	2.475	2.547		10.3	10.0	2.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7746	0.7673		9.91	10.0	-0.9	20.0
2-Fluorobiphenyl (Surr)	Ave	1.307	1.178		9.02	10.0	-9.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1301	0.0953		7.33	10.0	-26.7*	20.0
Terphenyl-d14 (Surr)	Ave	0.7362	0.7349		9.98	10.0	-0.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Lab File ID: 50828003.D Lab Sample ID: MB 240-194855/23-A

Matrix: Solid Date Extracted: 08/26/2015 08:52

Instrument ID: A4HP9 Date Analyzed: 08/28/2015 08:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-194855/24-A	50828004.D	08/28/2015 08:59
D-DUP06-082415	240-54676-13	50828005.D	08/28/2015 10:11
D-VB-F-23-2	240-54676-9	50828006.D	08/28/2015 10:36
D-VB-F-24-2	240-54676-10	50828007.D	08/28/2015 11:00
D-VS-F1-4-2	240-54676-1	50828008.D	08/28/2015 11:24
D-VB-F1-5-3	240-54676-4	50828009.D	08/28/2015 11:49
D-DUP05-082415	240-54676-6	50828010.D	08/28/2015 12:13
D-VB-F1-1-3	240-54676-2	50828011.D	08/28/2015 12:37
D-VB-F-20-2	240-54676-8	50828012.D	08/28/2015 13:01
D-VB-F-25-2	240-54676-11	50828013.D	08/28/2015 13:26
D-VS-F-3-1	240-54676-12	50828014.D	08/28/2015 13:50
D-VB-F1-4-3	240-54676-3	50828015.D	08/28/2015 14:14
D-VB-F1-10-3	240-54676-5	50828016.D	08/28/2015 14:38
D-VS-F1-3-2	240-54676-7	50828017.D	08/28/2015 15:03

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-54676-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-194855/23-A

Matrix: Solid | Lab File ID: 50828003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 08/26/2015 08:52

Sample wt/vol: 30(g) | Date Analyzed: 08/28/2015 08:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 195245 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
120-12-7	Anthracene	0.78	U	6.7	0.78
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68
218-01-9	Chrysene	1.1	U	6.7	1.1
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
91-20-3	Naphthalene	0.82	U	6.7	0.82
85-01-8	Phenanthrene	0.73	U	6.7	0.73
129-00-0	Pyrene	0.44	U	6.7	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	99		36-110
4165-62-2	Phenol-d5 (Surr)	90		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	79		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	80		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-110

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50828004.D

Lab ID: LCS 240-194855/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Acenaphthene	667	515	77	38-110	
Acenaphthylene	667	535	80	40-110	
Anthracene	667	538	81	48-110	
Benzo[a]anthracene	667	544	82	50-110	
Benzo[a]pyrene	667	578	87	44-110	
Benzo[b]fluoranthene	667	573	86	43-110	
Benzo[g,h,i]perylene	667	610	92	51-110	
Benzo[k]fluoranthene	667	619	93	38-105	
Chrysene	667	566	85	50-110	
Dibenz(a,h)anthracene	667	632	95	51-110	
Fluoranthene	667	561	84	51-110	
Fluorene	667	509	76	46-110	
Indeno[1,2,3-cd]pyrene	667	610	91	50-110	
Naphthalene	667	522	78	36-110	
Phenanthrene	667	534	80	49-110	
Pyrene	667	597	90	49-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
D-VS-F1-4-2	240-54676-1	74	80	67	73	30	97
D-VB-F1-1-3	240-54676-2	81	83	74	73	15	82
D-VB-F1-4-3	240-54676-3	78	85	69	74	58	91
D-VB-F1-5-3	240-54676-4	86	90	75	75	41	88
D-VB-F1-10-3	240-54676-5	74	82	64	76	38	91
D-DUP05-082415	240-54676-6	75	75	66	69	23	91
D-VS-F1-3-2	240-54676-7	75	82	65	70	46	86
D-VB-F-20-2	240-54676-8	80	85	73	73	22	89
D-VB-F-23-2	240-54676-9	82	86	70	71	44	96
D-VB-F-24-2	240-54676-10	85	91	79	80	40	96
D-VB-F-25-2	240-54676-11	83	85	72	76	26	91
D-VS-F-3-1	240-54676-12	81	79	69	74	36	92
D-DUP06-082415	240-54676-13	75	84	64	74	37	92
	MB 240-194855/23-A	83	90	79	80	32	99
	LCS 240-194855/24-A	86	89	81	75	56	90

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		132768	6.38	517319	7.49	295987	9.00
UPPER LIMIT		265536	6.88	1034638	7.99	591974	9.50
LOWER LIMIT		66384	5.88	258660	6.99	147994	8.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		140419	6.38	526526	7.49	301734	8.99
CCV 240-195245/2 CCVIS		146011	6.16	578820	7.29	319166	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: STD6 240-192437/10 Date Analyzed: 08/08/2015 18:56

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50808010.D Heated Purge: (Y/N) N

Calibration ID: 30010

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430270	10.27	536054	12.56	474969	14.33
UPPER LIMIT		860540	10.77	1072108	13.06	949938	14.83
LOWER LIMIT		215135	9.77	268027	12.06	237485	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-192437/11		447684	10.26	545931	12.56	484066	14.34
CCV 240-195245/2 CCVIS		514024	10.05	528635	12.30	451296	13.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: CCV 240-195245/2 Date Analyzed: 08/28/2015 07:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50828002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		146011	6.16	578820	7.29	319166	8.79
UPPER LIMIT		292022	6.66	1157640	7.79	638332	9.29
LOWER LIMIT		73006	5.66	289410	6.79	159583	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194855/23-A		123267	6.17	479781	7.29	265586	8.79
LCS 240-194855/24-A		120304	6.17	485464	7.29	268310	8.79
240-54676-13	D-DUP06-082415	120981	6.17	505988	7.29	274379	8.79
240-54676-9	D-VB-F-23-2	120079	6.17	500408	7.29	273321	8.79
240-54676-10	D-VB-F-24-2	115278	6.17	466209	7.29	255697	8.79
240-54676-1	D-VS-F1-4-2	121433	6.16	476475	7.29	265252	8.79
240-54676-4	D-VB-F1-5-3	124072	6.17	511501	7.29	288766	8.79
240-54676-6	D-DUP05-082415	117267	6.16	475174	7.29	260811	8.79
240-54676-2	D-VB-F1-1-3	128060	6.17	508781	7.29	287048	8.79
240-54676-8	D-VB-F-20-2	128909	6.17	497452	7.29	284616	8.79
240-54676-11	D-VB-F-25-2	124735	6.17	495822	7.29	278659	8.79
240-54676-12	D-VS-F-3-1	134122	6.17	532177	7.29	296348	8.79
240-54676-3	D-VB-F1-4-3	137157	6.17	556585	7.29	315518	8.79
240-54676-5	D-VB-F1-10-3	142591	6.17	556878	7.29	316402	8.79
240-54676-7	D-VS-F1-3-2	145403	6.17	570650	7.29	332525	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-54676-1

SDG No.:

Sample No.: CCV 240-195245/2 Date Analyzed: 08/28/2015 07:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50828002.D Heated Purge: (Y/N) N

Calibration ID: 30014

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		514024	10.05	528635	12.30	451296	13.90
UPPER LIMIT		1028048	10.55	1057270	12.80	902592	14.40
LOWER LIMIT		257012	9.55	264318	11.80	225648	13.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-194855/23-A		427363	10.05	454807	12.30	368357	13.90
LCS 240-194855/24-A		442589	10.05	481637	12.29	400900	13.90
240-54676-13	D-DUP06-082415	462688	10.05	485435	12.30	384284	13.90
240-54676-9	D-VB-F-23-2	454269	10.05	480952	12.30	391633	13.90
240-54676-10	D-VB-F-24-2	417508	10.05	429768	12.29	362776	13.90
240-54676-1	D-VS-F1-4-2	420181	10.05	436755	12.29	371035	13.90
240-54676-4	D-VB-F1-5-3	469855	10.05	495792	12.29	401146	13.90
240-54676-6	D-DUP05-082415	424923	10.05	429171	12.30	371394	13.90
240-54676-2	D-VB-F1-1-3	475049	10.05	518073	12.29	457145	13.91
240-54676-8	D-VB-F-20-2	467463	10.05	498732	12.29	446232	13.90
240-54676-11	D-VB-F-25-2	462960	10.05	505699	12.29	438615	13.90
240-54676-12	D-VS-F-3-1	491239	10.05	529017	12.30	460188	13.90
240-54676-3	D-VB-F1-4-3	520310	10.05	568705	12.30	503755	13.90
240-54676-5	D-VB-F1-10-3	525919	10.05	577379	12.30	542613	13.90
240-54676-7	D-VS-F1-3-2	536498	10.05	592441	12.30	527894	13.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

ATTACHMENT C

TABLE 3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Block D Excluding Panhandle	Benzo(a)pyrene Equivalents	mg/kg	0.196	0.408 (NP)	4.21	0.408	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL 5.0.00
	Naphthalene	mg/kg	0.027	0.039 (L)	0.69 J	0.039	mg/kg	95% KM (BCA) UCL	ProUCL 5.0.00
	Lead	mg/kg	14.9	43.0 (G)	75 K	14.9	mg/kg	Arithmetic Mean Concentration	(1)
	Nickel	mg/kg	6.35	9.25 (N)	15 K	9.25	mg/kg	95% Student's-t UCL	ProUCL 5.0.00
	Hexavalent Chromium	mg/kg	0.764	0.974 (AL)	1.8	0.974	mg/kg	95% Student's-t UCL	ProUCL 5.0.00

AL = Approximate lognormal
G = Gamma
L = Lognormal
N = Normal
NP = Non-parametric

1 - Mean concentration is used as exposure point concentration for evaluating exposures to lead.
U.S. EPA, 1994:Guidance Manual for the Integrated Exposure Uptake Biokinetic Model for lead in Children.

TABLE 3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Subsurface Soil
Exposure Medium: Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Block D Excluding Panhandle	Benzo(a)pyrene Equivalents	mg/kg	0.136	0.296 (L)	1.8	0.296	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL 5.0.00
	Naphthalene	mg/kg	0.027	0.045 (AL)	0.45	0.045	mg/kg	95% KM (BCA) UCL	ProUCL 5.0.00
	Mercury	mg/kg	0.097	0.181 (AG)	0.38	0.181	mg/kg	95% Adjusted Gamma KM-UCL	ProUCL 5.0.00

AG = Approximate gamma
AL = Approximatge lognormal
L = Lognormal

TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Workers	Adult	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	50	mg/day	USEPA, 2014	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	$\frac{CS \times IRS \times CF3 \times FI \times EF \times ED}{BW \times AT}$
				FI	Fraction Ingested	1	unitless	USEPA, 2014	
				EF	Exposure Frequency	250	days/year	USEPA, 2014	
				ED	Exposure Duration	25	years	USEPA, 2014	
				BW	Body Weight	80	kg	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 2014	
Dermal	Industrial Workers	Adult	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3,527	cm2	USEPA, 2014	$\frac{CS \times CF3 \times SA \times SSAF \times DABS \times EV \times EF \times ED}{BW \times AT}$
				SSAF	Soil to Skin Adherence Factor	0.12	mg/cm2/event	USEPA, 2014	
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2014	
				EF	Exposure Frequency	250	days/year	USEPA, 2014	
				ED	Exposure Duration	25	years	USEPA, 2014	
				BW	Body Weight	80	kg	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 2014	

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Block D Excluding Panhandle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	250	days/year	USEPA, 2014	
				ED	Exposure Duration	25	years	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 2014	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA, 2016	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2016	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2016	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2016	
				V	Fraction of vegetative cover	0.5	unitless	USEPA, 2016	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA, 2016	

Notes:

1 - Length of typical work day.

Sources:

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

USEPA, 2016: Regional Screening Level Internet site at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. Site-specific values for Philadelphia, PA.

TABLE 4.3.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS - SOILS

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Child	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	200	mg/day	USEPA, 2014	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 2014	BW x AT
				EF	Exposure Frequency	350	days/year	USEPA, 2014	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 2005, 2014	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 2005, 2014	
				BW	Body Weight	15	kg	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 2014	
Dermal	Resident	Child	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	2,373	cm2	USEPA, 2014	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2014	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2014	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 2005, 2014	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 2005, 2014	
				BW	Body Weight	15	kg	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 2014	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

TABLE 4.4.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS SOILS TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Child	Block D Excluding Panhandle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 2014	$\frac{CA \times ET \times EF \times ED}{AT \times 24 \text{ hours/day}}$
				EF	Exposure Frequency	350	days/year	USEPA, 2014	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 2005, 2014	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 2005, 2014	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 2014	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2016	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2016	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2016	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2016	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2016	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2016	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

USEPA, 2016: Regional Screening Level Internet site at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. Site-specific values for Philadelphia, PA.

TABLE 4.5.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RESIDENTS - SOILS

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adolescent	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 2014	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 2014	BW x AT
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 2005, 2014	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), USEPA, 2005, 2014	
				BW	Body Weight	40	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 2014	
Dermal	Resident	Adolescent	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	4,320	cm2	MDE, 2008	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.1	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 2005, 2014	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), USEPA, 2005, 2014	
				BW	Body Weight	40	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 2014	

Notes:

1 - For chemicals that act via the mutagenic mode of action the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

MDE, 2008: Cleanup Standards for Soil and Groudnwater. Interim Final Guidance, June.

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

TABLE 4.6.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RESIDENTS SOILS TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adolescent	Block D Excluding Panhandle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 2014	$\frac{CA \times ET \times EF \times ED}{AT \times 24 \text{ hours/day}}$
				EF	Exposure Frequency	350	days/year	USEPA, 2002a	
				ED	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 2005, 2014)	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), USEPA, 2005, 2014)	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 2014	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2016	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2016	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2016	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2016	
				V	Fraction of vegetative cover	0.5	unitless	USEPA, 2016	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA, 2016	

Notes:

1 - For chemicals that act via the mutagenic mode of action the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

USEPA, 2016: Regional Screening Level Internet site at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. Site-specific values for Philadelphia, PA.

TABLE 4.7.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - SOILS

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 2014	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 2014	BW x AT
				EF	Exposure Frequency	350	days/year	USEPA, 2014	
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), USEPA, 2005, 2014)	
				BW	Body Weight	80	kg	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 2014	
Dermal	Resident	Adult	Block D Excluding Panhandle	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	6,032	cm2	USEPA, 2014	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.07	mg/cm2/event	USEPA, 2014	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2014	
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), USEPA, 2005, 2014)	
				BW	Body Weight	80	kg	USEPA, 2014	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 2014	

Notes:

1 - Adults will be evaluated as one age group (7 - 26 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, adults will be evaluated as two age groups, 7 - 16 years and 16 - 26 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

TABLE 4.8.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Block D Excluding Panhandle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 2014	$\frac{CA \times ET \times EF \times ED}{AT \times 24 \text{ hours/day}}$
				EF	Exposure Frequency	350	days/year	USEPA, 2014	
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), USEPA, 2005, 2014)	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 2014	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 2014	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2016	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2016	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2016	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2016	
				V	Fraction of vegetative cover	0.5	unitless	USEPA, 2016	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA, 2016	

Notes:

1 - For chemicals that act via the mutagenic mode of action the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

USEPA, 2014: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER 9200.1-120.

USEPA, 2016: Regional Screening Level Internet site at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. Site-specific values for Philadelphia, PA.

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK D EXCLUDING PANHANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons										
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	3/28/2016
Metals										
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury[3]	Chronic	3.0E-04	mg/kg/day	0.07	2.1E-05	mg/kg/day	Autoimmune	1000/1	IRIS	3/28/2016
Nickel	Chronic	2.0E-02	mg/kg/day	0.04	8.0E-04	mg/kg/day	Body Weight	300/1	IRIS	3/28/2016
Miscellaneous Parameters										
Hexavalent Chromium	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	None Reported	300/3	IRIS	3/28/2016

Notes:

1 - U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.

2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.

3 - Values are for mercuric chloride.

Definitions:

IRIS = Integrated Risk Information System.

NA = Not available.

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
BLOCK D EXCLUDING PANHANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[(1)]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons									
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	3/28/2016
Metals									
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury[(2)]	Chronic	3.0E-04	mg/m^3	8.6E-05	(mg/kg/day)	Central Nervous System	NA	Cal EPA	9/2009
Nickel	Chronic	9.0E-05	mg/m^3	2.6E-05	(mg/kg/day)	Respiratory	NA	ASTDR	9/2005
Miscellaneous Parameters									
Hexavalent Chromium	Chronic	1.0E-04	mg/m^3	2.9E-05	(mg/kg/day)	Lungs	300/1	IRIS	3/28/2016

Notes:
1 - Extrapolated RfD = RfC *20m^3/day / 70 kg
2 - Value is for mercuric chloride.
Definitions:
ATSDR = Agency for Toxic Substances and Disease Registry.
Cal EPA = California Environmental Protection Agency.
IRIS = Integrated Risk Information System.
NA = Not available.

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK D EXCLUDING PANHANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons								
Benzo(a)pyrene[3]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	3/28/2016
Naphthalene	NA	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	3/28/2016
Metals								
Lead	NA	NA	NA	NA	NA	B2 (Probable human carcinogen)	IRIS	3/28/2016
Mercury	NA	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	3/28/2016
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters								
Hexavalent Chromium[3]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	NJ	4/8/2009

Notes:

1 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.

2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral Absorption Efficiency for Dermal.

3 - Several PAHs and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

IRIS = Integrated Risk Information System.

NA = Not available.

NJ = New Jersey.

TABLE 6.2
CANCER TOXICITY DATA -- INHALATION
BLOCK D EXCLUDING PANHANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons							
Benzo(a)pyrene[2]	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	NA	Cal EPA	9/2009
Naphthalene	3.4E-05	$(ug/m3)^{-1}$	1.2E-01	$(mg/kg/day)^{-1}$	C / Possible Human Carcinogen	Cal EPA	8/2004
Metals							
Lead	NA	NA	NA	NA	B2 (Probable human carcinogen)	IRIS	3/28/2016
Mercury	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	3/28/2016
Nickel	2.6E-04	$(ug/m^3)^{-1}$	9.1E-01	$(mg/kg/day)^{-1}$	NA	Cal EPA	9/2009
Miscellaneous Parameters							
Hexavalent Chromium[2]	8.4E-02	$(ug/m^3)^{-1}$	2.9E+02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	3/28/2016

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

2 - Several PAHs and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Definitions:

Cal EPA = California Environmental Protection Agency.

IRIS = Integrated Risk Information System.

NA = Not available.

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.408	mg/kg	6.2E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5E-07	1.7E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	6.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0000009
				Lead	14.9	mg/kg	2.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	1.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Hexavalent Chromium	0.974	mg/kg	1.5E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	8E-08	4.2E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
			Exp. Route Total								6E-07					0.0003
			Dermal	Benzo(a)pyrene Equivalents	0.408	mg/kg	6.8E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5E-07	1.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	6.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0000009
				Lead	14.9	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.0004
				Hexavalent Chromium	0.974	mg/kg	1.3E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3E-07	3.5E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0005
			Exp. Route Total								8E-07					0.0009
		Exposure Point Total									1E-06					0.001
	Exposure Medium Total										1E-06					0.001
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	1.2E-10	mg/m^3	9.8E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1E-11	2.7E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	6.6E-07	mg/m^3	5.4E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2E-09	1.5E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.00005
				Lead	4.5E-09	mg/m^3	3.7E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-09	(mg/m^3)	NA	(mg/m^3)	--
				Nickel	2.8E-09	mg/m^3	2.3E-10	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	6E-11	6.4E-10	(mg/m^3)	9.0E-05	(mg/m^3)	0.000007
				Hexavalent Chromium	3.0E-10	mg/m^3	2.4E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2E-09	6.8E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000007
			Exp. Route Total								4E-09					0.00006
		Exposure Point Total									4E-09					0.00006
	Exposure Medium Total										4E-09					0.00006
Medium Total											1E-06					0.001
Subsurface Soil	Subsurface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.296	mg/kg	4.5E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3E-07	1.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	6.9E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000001
				Mercury	0.181	mg/kg	2.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.7E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0003
			Exp. Route Total								3E-07					0.000001
			Dermal	Benzo(a)pyrene Equivalents	0.296	mg/kg	5.0E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4E-07	1.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	7.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000001
				Mercury	0.181	mg/kg	2.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-09	(mg/kg/day)	2.1E-05	(mg/kg/day)	0.0003
			Exp. Route Total								4E-07					0.000001
		Exposure Point Total									7E-07					0.000002
	Exposure Medium Total										7E-07					0.000002
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	9.0E-11	mg/m^3	7.3E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	8E-12	2.1E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	7.6E-07	mg/m^3	6.2E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2E-09	1.7E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.00006
				Mercury	5.5E-11	mg/m^3	4.5E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	3.0E-04	(mg/m^3)	4E-8
			Exp. Route Total								2E-09					0.00006
		Exposure Point Total									2E-09					0.00006
	Exposure Medium Total										2E-09					0.00006
Medium Total											7E-07					0.0001

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.408	mg/kg	2.4E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2E-05	5.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	4.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.0E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Lead	14.9	mg/kg	1.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-04	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	1.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-04	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.006
				Hexavalent Chromium	0.974	mg/kg	5.7E-06	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3E-06	1.2E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.004
			Exp. Route Total								2E-05					0.01
			Dermal	Benzo(a)pyrene Equivalents	0.408	mg/kg	7.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5E-06	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	1.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000008
				Lead	14.9	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	2.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-06	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.004
				Hexavalent Chromium	0.974	mg/kg	1.3E-07	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3E-06	3.0E-07	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.004
			Exp. Route Total								8E-06					0.008
		Exposure Point Total									3E-05					0.02
	Exposure Medium Total										3E-05					0.02
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	1.3E-10	mg/m^3	5.7E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	6E-11	1.2E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	6.6E-07	mg/m^3	5.4E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2E-09	6.3E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Lead	4.6E-09	mg/m^3	3.8E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Nickel	2.9E-09	mg/m^3	2.4E-10	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	6E-11	2.8E-09	(mg/m^3)	9.0E-05	(mg/m^3)	0.00003
				Hexavalent Chromium	3.0E-10	mg/m^3	1.3E-10	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1E-08	2.9E-10	(mg/m^3)	1.0E-04	(mg/m^3)	0.000003
			Exp. Route Total								1E-08					0.0002
		Exposure Point Total									1E-08					0.0002
	Exposure Medium Total										1E-08					0.0002
Medium Total											3E-05					0.02
Subsurface Soil	Subsurface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.296	mg/kg	1.7E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1E-05	3.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	4.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.8E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Mercury	0.181	mg/kg	2.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.008
			Exp. Route Total								1E-05					0.00003
			Dermal	Benzo(a)pyrene Equivalents	0.296	mg/kg	5.3E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4E-06	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	1.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000009
				Mercury	0.181	mg/kg	4.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-08	(mg/kg/day)	2.1E-05	(mg/kg/day)	0.003
			Exp. Route Total								4E-06					0.000009
		Exposure Point Total									1E-05					0.00004
	Exposure Medium Total										1E-05					0.00004
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	9.2E-11	mg/m^3	4.0E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	4E-11	8.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	7.6E-07	mg/m^3	6.2E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2E-09	7.3E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Mercury	5.6E-11	mg/m^3	4.6E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.4E-11	(mg/m^3)	3.0E-04	(mg/m^3)	0.0000002
			Exp. Route Total								2E-09					0.0002
		Exposure Point Total									2E-09					0.0002
	Exposure Medium Total										2E-09					0.0002
Medium Total											1E-05					0.0002

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.408	mg/kg	5.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4E-06	9.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	1.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.4E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000005
				Lead	14.9	mg/kg	6.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	3.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.001
				Hexavalent Chromium	0.974	mg/kg	1.2E-06	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	6E-07	2.3E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0008
			Exp. Route Total								5E-06					0.002
			Dermal	Benzo(a)pyrene Equivalents	0.408	mg/kg	2.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1E-06	3.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	6.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000002
				Lead	14.9	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.7E-07	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.0008
				Hexavalent Chromium	0.974	mg/kg	3.6E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	7E-07	7.1E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0009
			Exp. Route Total								2E-06					0.002
		Exposure Point Total									7E-06					0.004
	Exposure Medium Total										7E-06					0.004
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	1.3E-10	mg/m^3	6.4E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	7E-11	1.2E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	6.6E-07	mg/m^3	1.1E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	4E-09	6.3E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Lead	4.6E-09	mg/m^3	7.6E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Nickel	2.9E-09	mg/m^3	4.8E-10	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	1E-10	2.8E-09	(mg/m^3)	9.0E-05	(mg/m^3)	0.00003
				Hexavalent Chromium	3.0E-10	mg/m^3	1.5E-10	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1E-08	2.9E-10	(mg/m^3)	1.0E-04	(mg/m^3)	0.000003
			Exp. Route Total								1E-08					0.0002
		Exposure Point Total									1E-08					0.0002
	Exposure Medium Total										1E-08					0.0002
Medium Total											7E-06					0.004
Subsurface Soil	Subsurface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.296	mg/kg	3.6E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3E-06	7.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	1.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000006
				Mercury	0.181	mg/kg	7.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.3E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
			Exp. Route Total								3E-06					0.000006
			Dermal	Benzo(a)pyrene Equivalents	0.296	mg/kg	1.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1E-06	2.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	7.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000002
				Mercury	0.181	mg/kg	2.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-08	(mg/kg/day)	2.1E-05	(mg/kg/day)	0.0006
			Exp. Route Total								1E-06					0.000002
		Exposure Point Total									4E-06					0.000008
	Exposure Medium Total										4E-06					0.000008
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	9.2E-11	mg/m^3	4.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	5E-11	8.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	7.6E-07	mg/m^3	1.2E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	4E-09	7.3E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Mercury	5.6E-11	mg/m^3	9.2E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.4E-11	(mg/m^3)	3.0E-04	(mg/m^3)	0.0000002
			Exp. Route Total								4E-09					0.0002
		Exposure Point Total									4E-09					0.0002
	Exposure Medium Total										4E-09					0.0002
Medium Total											4E-06					0.0002

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.408	mg/kg	8.4E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6E-07	4.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	8.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000002
				Lead	14.9	mg/kg	3.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	1.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0006
				Hexavalent Chromium	0.974	mg/kg	2.0E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1E-07	1.2E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0004
			Exp. Route Total								7E-07					0.001
			Dermal	Benzo(a)pyrene Equivalents	0.408	mg/kg	4.6E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3E-07	2.7E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.039	mg/kg	4.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000001
				Lead	14.9	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Nickel	9.25	mg/kg	8.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-07	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.0006
				Hexavalent Chromium	0.974	mg/kg	8.5E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2E-07	4.9E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0007
			Exp. Route Total								5E-07					0.001
		Exposure Point Total									1E-06					0.002
	Exposure Medium Total										1E-06					0.002
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	1.3E-10	mg/m^3	2.1E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2E-11	1.2E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	6.6E-07	mg/m^3	1.1E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	4E-09	6.3E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Lead	4.6E-09	mg/m^3	7.5E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Nickel	2.9E-09	mg/m^3	4.8E-10	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	1E-10	2.8E-09	(mg/m^3)	9.0E-05	(mg/m^3)	0.00003
				Hexavalent Chromium	3.0E-10	mg/m^3	4.9E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	4E-09	2.9E-10	(mg/m^3)	1.0E-04	(mg/m^3)	0.000003
			Exp. Route Total								8E-09					0.0002
		Exposure Point Total									8E-09					0.0002
	Exposure Medium Total										8E-09					0.0002
Medium Total											1E-06					0.002
Subsurface Soil	Subsurface Soil	Block D	Ingestion	Benzo(a)pyrene Equivalents	0.296	mg/kg	6.1E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4E-07	3.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	9.2E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.4E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000003
				Mercury	0.181	mg/kg	3.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0007
			Exp. Route Total								4E-07					0.000003
			Dermal	Benzo(a)pyrene Equivalents	0.296	mg/kg	3.3E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2E-07	1.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.045	mg/kg	5.1E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000002
				Mercury	0.181	mg/kg	1.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.2E-09	(mg/kg/day)	2.1E-05	(mg/kg/day)	0.0004
			Exp. Route Total								2E-07					0.000002
		Exposure Point Total									6E-07					0.000005
	Exposure Medium Total										6E-07					0.000005
	Air	Block D	Inhalation	Benzo(a)pyrene Equivalents	9.2E-11	mg/m^3	1.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2E-11	8.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	7.6E-07	mg/m^3	1.2E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	4E-09	7.3E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0002
				Mercury	5.6E-11	mg/m^3	9.2E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.4E-11	(mg/m^3)	3.0E-04	(mg/m^3)	0.0000002
			Exp. Route Total								4E-09					0.0002
		Exposure Point Total									4E-09					0.0002
	Exposure Medium Total										4E-09					0.0002
Medium Total											6E-07					0.0002

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D	Benzo(a)pyrene Equivalents	5E-07	--	5E-07	--	1E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.0000009	--	0.0000009	0.000002
			Lead	- -	--	- -	--	- -	NA	--	--	--	--
			Nickel	- -	--	- -	--	- -	Body Weight	0.0002	--	0.0004	0.0006
			Hexavalent Chromium	8E-08	--	3E-07	--	4E-07	None Specified	0.0001	--	0.0005	0.0006
			Chemical Total	6E-07	--	8E-07	--	1E-06		0.0003	--	0.0009	0.001
		Exposure Point Total						1E-06					0.001
	Exposure Medium Total							1E-06					0.001
	Air	Block D	Benzo(a)pyrene Equivalents	--	1E-11	--	--	1E-11	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.00005	--	0.00005
			Lead	--	- -	--	--	- -	NA	--	--	--	--
			Nickel	--	6E-11	--	--	6E-11	Respiratory	--	0.000007	--	0.000007
			Hexavalent Chromium	--	2E-09	--	--	2E-09	Respiratory	--	0.0000007	--	0.0000007
			Chemical Total	--	4E-09	--	--	4E-09		- -	0.00006	- -	0.00006
		Exposure Point Total						4E-09					0.00006
	Exposure Medium Total							4E-09					0.00006
Medium Total								1E-06					0.001
Subsurface Soil	Subsurface Soil	Block D	Benzo(a)pyrene Equivalents	3E-07	--	4E-07	--	7E-07	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000001	--	0.000001	0.000002
			Mercury	- -	--	- -	--	- -	CNS	0.0003	--	0.0003	0.0006
			Chemical Total	3E-07	--	4E-07	--	7E-07		0.000001	--	0.000001	0.0006
		Exposure Point Total						7E-07					0.0006
	Exposure Medium Total							7E-07					0.0006
	Air	Block D	Benzo(a)pyrene Equivalents	--	8E-12	--	--	8E-12	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.00006	--	0.00006
			Mercury	--	- -	--	--	- -	CNS	--	0.00000004	--	0.00000004
			Chemical Total	--	2E-09	--	--	2E-09		- -	0.00006	- -	0.00006
		Exposure Point Total						2E-09					0.00006
	Exposure Medium Total							2E-09					0.00006
Medium Total								7E-07					0.0007

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D	Benzo(a)pyrene Equivalents	2E-05	--	5E-06	--	3E-05	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.00003	--	0.000008	0.00004
			Lead	- -	--	- -	--	- -	NA	--	--	--	--
			Nickel	- -	--	- -	--	- -	Body Weight	0.006	--	0.004	0.01
			Hexavalent Chromium	3E-06	--	3E-06	--	6E-06	None Specified	0.004	--	0.004	0.008
			Chemical Total	2E-05	--	8E-06	--	3E-05		0.01	--	0.008	0.02
		Exposure Point Total						3E-05					0.02
	Exposure Medium Total							3E-05					0.02
	Air	Block D	Benzo(a)pyrene Equivalents	--	6E-11	--	--	6E-11	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.0002	--	0.0002
			Lead	--	- -	--	--	- -	NA	--	--	--	--
			Nickel	--	6E-11	--	--	6E-11	Respiratory	--	0.00003	--	0.00003
			Hexavalent Chromium	--	1E-08	--	--	1E-08	Respiratory	--	0.000003	--	0.000003
			Chemical Total	--	1E-08	--	--	1E-08		- -	0.0002	- -	0.0002
		Exposure Point Total						1E-08					0.0002
	Exposure Medium Total							1E-08					0.0002
Medium Total								3E-05					0.02
Subsurface Soil	Subsurface Soil	Block D	Benzo(a)pyrene Equivalents	1E-05	--	4E-06	--	1E-05	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.00003	--	0.000009	0.00004
			Mercury	- -	--	- -	--	- -	CNS	0.008	--	0.003	0.01
			Chemical Total	1E-05	--	4E-06	--	1E-05		0.00003	--	0.000009	0.00004
		Exposure Point Total						1E-05					0.00004
	Exposure Medium Total							1E-05					0.00004
	Air	Block D	Benzo(a)pyrene Equivalents	--	4E-11	--	--	4E-11	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.0002	--	0.0002
			Mercury	--	- -	--	--	- -	CNS	--	0.0000002	--	0.0000002
			Chemical Total	--	2E-09	--	--	2E-09		- -	0.0002	- -	0.0002
		Exposure Point Total						2E-09					0.0002
	Exposure Medium Total							2E-09					0.0002
Medium Total								1E-05					0.0002

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D	Benzo(a)pyrene Equivalents	4E-06	--	1E-06	--	5E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000005	--	0.000002	0.000007
			Lead	- -	--	- -	--	- -	NA	--	--	--	--
			Nickel	- -	--	- -	--	- -	Body Weight	0.001	--	0.0008	0.002
			Hexavalent Chromium	6E-07	--	7E-07	--	1E-06	None Specified	0.0008	--	0.0009	0.002
			Chemical Total	5E-06	--	2E-06	--	7E-06		0.002	--	0.002	0.004
		Exposure Point Total						7E-06					0.004
	Exposure Medium Total							7E-06					0.004
	Air	Block D	Benzo(a)pyrene Equivalents	--	7E-11	--	--	7E-11	NA	--	--	--	--
			Naphthalene	--	4E-09	--	--	4E-09	Respiratory	--	0.0002	--	0.0002
			Lead	--	- -	--	--	- -	NA	--	--	--	--
			Nickel	--	1E-10	--	--	1E-10	Respiratory	--	0.00003	--	0.00003
			Hexavalent Chromium	--	1E-08	--	--	1E-08	Respiratory	--	0.000003	--	0.000003
			Chemical Total	--	1E-08	--	--	1E-08		- -	0.0002	- -	0.0002
		Exposure Point Total						1E-08					0.0002
	Exposure Medium Total							1E-08					0.0002
Medium Total								7E-06					0.004
Subsurface Soil	Subsurface Soil	Block D	Benzo(a)pyrene Equivalents	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000006	--	0.000002	0.000008
			Mercury	- -	--	- -	--	- -	CNS	0.001	--	0.0006	0.002
			Chemical Total	3E-06	--	1E-06	--	4E-06		0.000006	--	0.000002	0.000008
		Exposure Point Total						4E-06					0.000008
	Exposure Medium Total							4E-06					0.000008
	Air	Block D	Benzo(a)pyrene Equivalents	--	5E-11	--	--	5E-11	NA	--	--	--	--
			Naphthalene	--	4E-09	--	--	4E-09	Respiratory	--	0.0002	--	0.0002
			Mercury	--	- -	--	--	- -	CNS	--	0.0000002	--	0.0000002
			Chemical Total	--	4E-09	--	--	4E-09		- -	0.0002	- -	0.0002
		Exposure Point Total						4E-09					0.0002
	Exposure Medium Total							4E-09					0.0002
Medium Total								4E-06					0.0002

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D	Benzo(a)pyrene Equivalents	6E-07	--	3E-07	--	9E-07	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000002	--	0.000001	0.000003
			Lead	- -	--	- -	--	- -	NA	--	--	--	--
			Nickel	- -	--	- -	--	- -	Body Weight	0.0006	--	0.0006	0.001
			Hexavalent Chromium	1E-07	--	2E-07	--	3E-07	None Specified	0.0004	--	0.0007	0.001
			Chemical Total	7E-07	--	5E-07	--	1E-06		0.001	--	0.001	0.002
		Exposure Point Total						1E-06					0.002
	Exposure Medium Total							1E-06					0.002
	Air	Block D	Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Naphthalene	--	4E-09	--	--	4E-09	Respiratory	--	0.0002	--	0.0002
			Lead	--	- -	--	--	- -	NA	--	--	--	--
			Nickel	--	1E-10	--	--	1E-10	Respiratory	--	0.00003	--	0.00003
			Hexavalent Chromium	--	4E-09	--	--	4E-09	Respiratory	--	0.000003	--	0.000003
			Chemical Total	--	8E-09	--	--	8E-09		- -	0.0002	- -	0.0002
		Exposure Point Total						8E-09					0.0002
	Exposure Medium Total							8E-09					0.0002
Medium Total								1E-06					0.002
Subsurface Soil	Subsurface Soil	Block D	Benzo(a)pyrene Equivalents	4E-07	--	2E-07	--	6E-07	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000003	--	0.000002	0.000005
			Mercury	- -	--	- -	--	- -	CNS	0.0007	--	0.0004	0.001
			Chemical Total	4E-07	--	2E-07	--	6E-07		0.000003	--	0.000002	0.000005
		Exposure Point Total						6E-07					0.000005
	Exposure Medium Total							6E-07					0.000005
	Air	Block D	Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Naphthalene	--	4E-09	--	--	4E-09	Respiratory	--	0.0002	--	0.0002
			Mercury	--	- -	--	--	- -	CNS	--	0.0000002	--	0.0000002
			Chemical Total	--	4E-09	--	--	4E-09		- -	0.0002	- -	0.0002
		Exposure Point Total						4E-09					0.0002
	Exposure Medium Total							4E-09					0.0002
Medium Total								6E-07					0.0002

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong (Child and Adult)

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D	Benzo(a)pyrene Equivalents	2E-05	--	6E-06	--	3E-05					
			Naphthalene	- -	--	- -	--	- -					
			Lead	- -	--	- -	--	- -					
			Nickel	- -	--	- -	--	- -					
			Hexavalent Chromium	4E-06	--	4E-06	--	8E-06					
			Chemical Total	2E-05	--	1E-05	--	3E-05					
		Exposure Point Total						3E-05					
	Exposure Medium Total							3E-05					
	Air	Block D	Benzo(a)pyrene Equivalents	--	2E-10	--	--	2E-10					
			Naphthalene	--	1E-08	--	--	1E-08					
			Lead	--	- -	--	--	- -					
			Nickel	--	3E-10	--	--	3E-10					
			Hexavalent Chromium	--	2E-08	--	--	2E-08					
			Chemical Total	--	3E-08	--	--	3E-08					
		Exposure Point Total						3E-08					
	Exposure Medium Total							3E-08					
Medium Total								3E-05					
Subsurface Soil	Subsurface Soil	Block D	Benzo(a)pyrene Equivalents	1E-05	--	5E-06	--	2E-05					
			Naphthalene	- -	--	- -	--	- -					
			Mercury	- -	--	- -	--	- -					
			Chemical Total	1E-05	--	5E-06	--	2E-05					
		Exposure Point Total						2E-05					
	Exposure Medium Total							2E-05					
	Air	Block D	Benzo(a)pyrene Equivalents	--	1E-10	--	--	1E-10					
			Naphthalene	--	1E-08	--	--	1E-08					
			Mercury	--	- -	--	--	- -					
			Chemical Total	--	1E-08	--	--	1E-08					
		Exposure Point Total						1E-08					
	Exposure Medium Total							1E-08					
Medium Total								2E-05					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

ATTACHMENT D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB - 6 2014

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

OSWER Directive 9200.1-120

MEMORANDUM

SUBJECT: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors

FROM: Dana Stalcup, Acting Director
Assessment and Remediation Division
Office of Superfund Remediation and Technology Innovation

TO: Superfund National Policy Managers, Regions 1 - 10

Purpose

The mission of the Superfund program is to protect human health and the environment consistent with the Comprehensive Environmental Response, Compensation and Liability Act, as amended, (CERCLA) and as implemented by the National Oil and Hazardous Substances Pollution Contingency Plan. The purpose of this directive is to update the Interim Final Standard Exposure Factors Guidance (1991), which is reflected in the attached table and is to be used:

- in the CERCLA remedial investigation and feasibility study process (e.g., assessing baseline health risks, developing preliminary remediation goals, evaluating risks of remedial alternatives),
- to evaluate health risks in the CERCLA removal program, and
- in the process of five-year reviews of selected remedies.

This guidance update supplements the *Risk Assessment Guidance for Superfund: Human Health Evaluation Manual, Part A* (RAGS, Part A) that was issued October 13, 1989. This guidance supersedes and replaces certain portions of OSWER Directive 9285.6-03, issued March 25, 1991 and updates the *Risk Assessment Guidance for Superfund, Part E,* issued July 2004 (RAGS, Part E). Other cleanup programs in the Office of Solid Waste and Emergency Response (OSWER) are welcome and encouraged to adopt the recommended exposure factors, much as they have historically adopted other aspects of the *Risk Assessment Guidance for Superfund* (RAGS).

Background

In September 2011, EPA's National Center for Environmental Assessment, Office of Research and Development (ORD/NCEA) issued a substantive update to its exposure assessment recommendations. *Exposure Factors Handbook – 2011 Edition*, referred to as EFH 2011 herein, provides information and recommendations on various physiological and behavioral factors commonly used in assessing exposure of adults and children to environmental chemicals. ORD/NCEA's recommended values for exposure factors are based on the results of studies deemed to be the most up-to-date and scientifically sound, based upon data available up to July 2011, and incorporates revisions made to the *Child-Specific Exposure Factors Handbook*, which was last updated and published in 2008. EFH 2011 is not a Superfund-specific document; rather, it provides a summary of the latest developments in exposure science and provides recommendations for a broad range of EPA programs.

Following the publication of EFH 2011, regional risk assessors received inquiries from other EPA program offices, states, the regulated community, and other interested parties regarding the applicability of the ORD/NCEA's recommendations for use in human health risk assessments. During the October 2011 to August 2012 period, the OSWER Human Health Regional Risk Assessors Forum (OHHRRAF) reviewed the recommendations in EFH 2011 in the context of the default exposure factors used in the Superfund program and to derive Regional screening levels. As a result of a consensus-driven process, the OHHRRAF identified several Superfund-specific default exposure factors that warranted updating, based upon recommendations from ORD/NCEA in EFH 2011. This guidance incorporates and adopts the updates recommended by the OHHRRAF.

Objective

This guidance has been developed to reduce variability and uncertainty in the exposure assumptions used by Regional Superfund staff to characterize exposures to human populations for human health risk assessments.

Implementation

This guidance supplements the *Risk Assessment Guidance for Superfund: Human Health Evaluation Manual* (RAGS), Part A through E. Where numerical values differ from those presented in Part A or E, the factors presented in this guidance should be considered updates to the older values. As new data become available, this Directive may be modified accordingly.

This report can be found at www.epa.gov/oswer/riskassessment/superfund_hh_exposure.htm Please contact Richard Kapuscinski at (703) 305-7411 if you have questions or concerns.

Attachment

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OSWER/OSRTI Human Health Regional Risk Assessors Forum

CITATIONS

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Attachment 1. Recommended Default Exposure Factors (2014)

Symbol	Definition (units)	Previous Default Value	Currently Recommended Value	Source of current recommendation	Source of previous recommendation
Ingestion and Dermal Contact Rates					
IRW_c	Resident Drinking Water Ingestion Rate - Child (L/day)	1	0.78	U.S. EPA 2011a, Tables 3-15 and 3-33; weighted average of 90th percentile consumer-only ingestion of drinking water (birth to <6 years)	U.S. EPA 1989 (Exhibit 6-11)
IRW_a	Resident Drinking Water Ingestion Rate - Adult (L/day)	2	2.5	U.S. EPA 2011a, Table 3-33; 90th percentile of consumer-only ingestion of drinking water (≥ 21 years)	U.S. EPA 1989 (Exhibit 6-11)
IRS_c	Resident Soil Ingestion Rate - Child (mg/day)	200	200	U.S. EPA 2011a (Table 5-1); "upper-bound values" accounting for both soil and dust ingestion	U.S. EPA 1991a (pg. 15)
IRS_a	Resident Soil Ingestion Rate - Adult (mg/day)	100	100	U.S. EPA 1991a (pp. 6 and 15); EFH 2011 only provides a central tendency value	U.S. EPA 1991a (pg. 15)
IR_{iw}	Indoor Worker Soil Ingestion Rate (mg/day)	50	50	U.S. EPA 1991a (pp. 9-10, 15); EFH 2011 values not provided	U.S. EPA 1991a (pg. 15)
IR_{ow}	Outdoor Worker Soil Ingestion Rate (mg/day)	100	100	U.S. EPA 1991a (pg. 15), same as adult resident; EFH 2011 value not provided	U.S. EPA 1991a (pg. 15)
SA_{sc}	Resident skin surface area - child (cm^2)	2,800	2,373	U.S. EPA 2011a, Tables 7-2 and 7-8; weighted average of mean values for head, hands, forearms, lower legs, and feet (male and female, birth to < 6 years)(forearm and lower leg-specific data used when available, ratios for nearest available age group used elsewhere (per EPA 2011b))	U.S. EPA 2002 (Exhibit 1-2)
SA_{sa}	Resident skin surface area - adult (cm^2)	5,700	6,032	U.S. EPA 2011a, Tables 7-2 and 7-12; weighted average of mean values for head, hands, forearms, and lower legs (male and female, 21+ years)(forearm and lower leg-specific data used for males and female lower leg; ratio of male forearm to arm applied to female arm data).	U.S. EPA 2002 (Exhibit 1-2)
SA_{sow}	Worker skin surface area - adult (cm^2)	3,300	3,527	US EPA 2011a, Table 7-2; weighted average of mean values for head, hands, and forearms (male and female, 21+years) (similar assumptions for forearms as used in EPA 2011b)	U.S. EPA 2002 (Exhibit 1-2)
SA_{wc}	Resident Water Surface area - child (cm^2)	6,600	6,365	U.S. EPA 2011a, Table 7.9; weighted average of mean values for male and female children <6 years.	U.S. EPA 2004 (Exhibit 3-2)
SA_{wa}	Resident Water Surface area - adult (cm^2)	18,000	19,652	U.S. EPA 2011a, Table 7.9; weighted average of mean values for male and female adults, 21-78.	U.S. EPA 2004 (Exhibit 3-2)
AF_c	Resident soil adherence factor - child (mg/cm^2)	0.2	0.2	U.S. EPA 2004 (Exhibit 3-5), RAGS Part E	U.S. EPA 2002 (Exhibit 1-2)
AF_a	Resident soil adherence factor - adult (mg/cm^2)	0.07	0.07	U.S. EPA 2004 (Exhibit 3-5), RAGS Part E	U.S. EPA 2002 (Exhibit 1-2)
AF_{ow}	Worker soil adherence factor - adult (mg/cm^2)	0.2	0.12	U.S. EPA 2011a, Table 7-20 and Section 7.2.2; arithmetic mean of weighted average of body part-specific (hands, forearms, and face) mean adherence factors for adult commercial/industrial activities	U.S. EPA 2002 (Exhibit 1-2)
BW_c	Resident Body Weight - child (kg)	15	15	U.S. EPA 2011a, Table 8-1; weighted average of mean body weights (birth to <6 years)	U.S. EPA 1991a (pg. 15)
BW_a	Resident Body Weight - adult (kg)	70	80	U.S. EPA 2011a, Table 8-3; weighted mean values for adults 21 – 78	U.S. EPA 1991a (pg. 15)
BW_w	Worker Body Weight (kg)	70	80	U.S. EPA 2011a, Table 8-3; weighted mean values for adults 21 – 78	U.S. EPA 1991a (pg. 15)
Exposure Frequency, Exposure Duration, and Exposure Time Variables					

Attachment 1. Recommended Default Exposure Factors (2014)

Symbol	Definition (units)	Previous Default Value	Currently Recommended Value	Source of current recommendation	Source of previous recommendation
EF_r	Resident Exposure Frequency (days/yr)	350	350	U.S. EPA 1991a (pg. 15); value not provided in EFH 2011	U.S. EPA 1991a (pg. 15)
EF_w	Worker Exposure Frequency (days/yr)	250	250	U.S. EPA 1991a (pg. 15); value not provided in EFH 2011	U.S. EPA 1991a (pg. 15)
EF_{iw}	Indoor Worker Exposure Frequency (days/yr)	250	250	U.S. EPA 1991a (pg. 15); value not provided in EFH 2011	U.S. EPA 1991a (pg. 15)
EF_{ow}	Outdoor Worker Exposure Frequency (days/yr)	225	225	U.S. EPA 2002; value not provided in EFH 2011	U.S. EPA 1991a (pg. 15)
ED_r	Resident Exposure Duration (yr)	30	26	EPA 2011a, Table 16-108; 90th percentile for current residence time.	U.S. EPA 1991a (pg. 15)
ED_c	Resident Exposure Duration - child (yr)	6	6	U.S. EPA 1991a, Pages 6 and 15	U.S. EPA 1991a (pg. 15)
ED_a	Resident Exposure Duration - adult (yr)	24	20	EDr (26 years) - EDc (6 years)	U.S. EPA 1991a (pg. 15)
ED_w	Worker Exposure Duration - (yr)	25	25	U.S. EPA 1991a (pg. 15); EFH 2011 only provides a central tendency value	U.S. EPA 1991a (pg. 15)
ED_{iw}	Indoor Worker Exposure Duration - (yr)	25	25	U.S. EPA 1991a (pg. 15); EFH 2011 only provides a central tendency value	U.S. EPA 1991a (pg. 15)
ED_{ow}	Outdoor Worker Exposure Duration (yr)	25	25	U.S. EPA 1991a (pg. 15); EFH 2011 only provides a central tendency value	U.S. EPA 1991a (pg. 15)
ET_{ra}	Resident Air Exposure Time (hours/day)	24	24	The whole day	The whole day
ET_{rs}	Resident Soil Exposure Time (hours/day)	24	24	The whole day	The whole day
ET_w	Worker Air Exposure Time (hr/hr)	8	8	The work day	The work day
ET_{ws}	Worker Soil Exposure Time (hours/day)	8	8	The work day	The work day
ET_{rw}	Resident Water Exposure Time (hours/day)	24	24	The whole day	The whole day
ET_{rwc}	Resident Water Exposure Time - child (hours/event)	1	0.54	U.S. EPA 2011a, Table 16-28; weighted average of 90th percentile time spent bathing (birth to <6 years)	U.S. EPA 2004
ET_{rwa}	Resident Water Exposure Time - adult (hours/event)	0.58	0.71	U.S. EPA 2011a, Tables 16-30 and 16-31; weighted average of adult (21 to 78) 90th percentile of time spent bathing/ showering in a day, divided by mean number of baths/showers taken in a day.	U.S. EPA 2004
Miscellaneous Variables; values not provided in EFH 2011					
AT_r	Averaging time - resident (days/year)	365	365	U.S. EPA 1989 (pg. 6-23)	U.S. EPA 1989 (pg. 6-23)
AT_w	Averaging time - composite worker (days/year)	365	365	U.S. EPA 1989 (pg. 6-23)	U.S. EPA 1989 (pg. 6-23)
AT_{iw}	Averaging time - indoor worker (days/year)	365	365	U.S. EPA 1989 (pg. 6-23)	U.S. EPA 1989 (pg. 6-23)
AT_{ow}	Averaging time - outdoor worker (days/year)	365	365	U.S. EPA 1989 (pg. 6-23)	U.S. EPA 1989 (pg. 6-23)

Attachment 1. Recommended Default Exposure Factors (2014)

Symbol	Definition (units)	Previous Default Value	Currently Recommended Value	Source of current recommendation	Source of previous recommendation
LT	Lifetime (years)	70	70	U.S. EPA 1989 (pg. 6-22), pending additional input from NCEA	U.S. EPA 1989 (pg. 6-22)
IR_{fish}	Fish Ingestion Rate (mg/day)	5.4×10^4	**	Recommend using site-specific values	U.S. EPA 1991a (pg. 15)
$IR_{produce}$	Consumption of homegrown produce (g/day)	42 (fruit); 80 (veg)	**	Recommend using site-specific values	U.S. EPA 1990

References for Cited Sources:

U.S. EPA 1989. Risk assessment guidance for Superfund. Volume I: Human health evaluation manual (Part A). Interim Final. Office of Emergency and Remedial Response. EPA/540/1-89/002.

U.S. EPA 1990. Exposure Factors Handbook. Office of Health and Environmental Assessment. EPA / 8-89 / 043, March 1990.

U.S. EPA 1991a. Human health evaluation manual, supplemental guidance: "Standard default exposure factors". OSWER Directive 9285.6-03.

U.S. EPA 1991b. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals). Office of Emergency and Remedial Response. EPA/540/R-92/003. December 1991

U.S. EPA. 1996a. Soil Screening Guidance: User's Guide. Office of Emergency and Remedial Response. Washington, DC. OSWER No. 9355.4-23http://www.epa.gov/superfund/health/conmedia/soil/index.htm#user

U.S. EPA. 1996b. Soil Screening Guidance: Technical Background Document. Office of Emergency and Remedial Response. Washington, DC. OSWER No. 9355.4-17Ahttp://www.epa.gov/superfund/health/conmedia/soil/introtbd.htm

U.S. EPA. 1997a. Exposure Factors Handbook. Office of Research and Development, Washington, DC. EPA/600/P-95/002Fa.

U.S. EPA 2000. Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds. Part I: Estimating Exposure to Dioxin-Like Compounds. Volume 3--Properties, Environmental Levels, and Background Exposures. Draft Fi

U.S. EPA, 2001. WATER9. Version 1.0.0. Office of Air Quality Planning and Standards, Research Triangle Park, NC.

U.S. EPA 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December 2002.http://www.epa.gov/superfund/health/conmedia/soil/index.htm

U.S. EPA 2004. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. OSWER 9285.7-02EP.July 2004. Document and website http://www.epa.gov/oswer/riskassessment/rags

U.S. EPA, 2005. Guidance on Selecting Age Groupsfor Monitoring and Assessing Childhood Exposures to Environmental Contaminants. EPA/630/P-03/003F, November, 2005.

U.S. EPA 2009. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Final. OSWER 9285.7-82.2009.

U.S. EPA 2011a. Exposure Factors Handbook: 2011 Edition. EPA/ 600/ R-090/052F, September 2011.

EPA. 2011b. "Regional Screening Levels (Formerly PRGs), User's Guide." November. On-Line Address: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm

Footnote: Users are directed to the *Exposure Factors Handbook* (2011) as a source for specific age-group exposure factors as described in EPA, 2005.

ATTACHMENT E

Surface Soil

PROUCL OUTPUT SURFACE SOIL BLOCK D EXCLUDING THE PANHANDLE

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	12/22/2015 1:06:23 PM
From File	ProUCL Data - Surface Soil.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

BAP EQUIVALENT-HALFND

General Statistics

Total Number of Observations	185	Number of Distinct Observations	113
Number of Detects	162	Number of Non-Detects	23
Number of Distinct Detects	97	Number of Distinct Non-Detects	16
Minimum Detect	0.06	Minimum Non-Detect	0.73
Maximum Detect	4207	Maximum Non-Detect	4200
Variance Detects	305269	Percent Non-Detects	12.43%
Mean Detects	186.9	SD Detects	552.5
Median Detects	14.31	CV Detects	2.956
Skewness Detects	5.051	Kurtosis Detects	28.15
Mean of Logged Detects	3.403	SD of Logged Detects	1.793

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.372	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.368	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0696	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	166.5	Standard Error of Mean	38.67
SD	521.5	95% KM (BCA) UCL	235.9
95% KM (t) UCL	230.4	95% KM (Percentile Bootstrap) UCL	236
95% KM (z) UCL	230.1	95% KM Bootstrap t UCL	259.1
90% KM Chebyshev UCL	282.5	95% KM Chebyshev UCL	335.1
97.5% KM Chebyshev UCL	408	99% KM Chebyshev UCL	551.3

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	15.86	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.853	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.225	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0791	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.365	k star (bias corrected MLE)	0.363
Theta hat (MLE)	511.6	Theta star (bias corrected MLE)	515.3
nu hat (MLE)	118.4	nu star (bias corrected)	117.5
MLE Mean (bias corrected)	186.9	MLE Sd (bias corrected)	310.4

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.102	nu hat (KM)	37.71
Approximate Chi Square Value (37.71, α)	24.65	Adjusted Chi Square Value (37.71, β)	24.57
95% Gamma Approximate KM-UCL (use when n>=50)	254.7	95% Gamma Adjusted KM-UCL (use when n<50)	255.5

BAP EQUIVALENT-HALFND (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	163.7
Maximum	4207	Median	9.82
SD	520.5	CV	3.18
k hat (MLE)	0.262	k star (bias corrected MLE)	0.261
Theta hat (MLE)	624.8	Theta star (bias corrected MLE)	626.3
nu hat (MLE)	96.95	nu star (bias corrected)	96.71
MLE Mean (bias corrected)	163.7	MLE Sd (bias corrected)	320.2
		Adjusted Level of Significance (β)	0.0487
Approximate Chi Square Value (96.71, α)	75.02	Adjusted Chi Square Value (96.71, β)	74.88
95% Gamma Approximate UCL (use when n>=50)	211	95% Gamma Adjusted UCL (use when n<50)	211.4

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.215	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0696	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	164.3	Mean in Log Scale	3.045
SD in Original Scale	520.3	SD in Log Scale	1.982
95% t UCL (assumes normality of ROS data)	227.5	95% Percentile Bootstrap UCL	231.6
95% BCA Bootstrap UCL	254.1	95% Bootstrap t UCL	255
95% H-UCL (Log ROS)	239		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	196	Mean in Log Scale	3.132
SD in Original Scale	564.5	SD in Log Scale	2.094
95% t UCL (Assumes normality)	264.7	95% H-Stat UCL	342.8

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	408

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

NAPHTHALENE			
General Statistics			
Total Number of Observations	127	Number of Distinct Observations	61
		Number of Missing Observations	58
Number of Detects	53	Number of Non-Detects	74
Number of Distinct Detects	43	Number of Distinct Non-Detects	19
Minimum Detect	4.2	Minimum Non-Detect	0.45
Maximum Detect	690	Maximum Non-Detect	163
Variance Detects	11395	Percent Non-Detects	58.27%
Mean Detects	61.55	SD Detects	106.7
Median Detects	37	CV Detects	1.734
Skewness Detects	4.633	Kurtosis Detects	24.63
Mean of Logged Detects	3.443	SD of Logged Detects	1.128
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.49	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.296	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.122	Detected Data Not Normal at 5% Significance Level	
Detected Data Not Normal at 5% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	26.23	Standard Error of Mean	6.698
SD	74.67	95% KM (BCA) UCL	39.23
95% KM (t) UCL	37.32	95% KM (Percentile Bootstrap) UCL	38.49
95% KM (z) UCL	37.24	95% KM Bootstrap t UCL	48.8
90% KM Chebyshev UCL	46.32	95% KM Chebyshev UCL	55.42
97.5% KM Chebyshev UCL	68.05	99% KM Chebyshev UCL	92.87
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	1.396	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.787	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.136	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.126	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.868	k star (bias corrected MLE)	0.831
Theta hat (MLE)	70.91	Theta star (bias corrected MLE)	74.03
nu hat (MLE)	92	nu star (bias corrected)	88.13
MLE Mean (bias corrected)	61.55	MLE Sd (bias corrected)	67.5
Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.123	nu hat (KM)	31.33
Approximate Chi Square Value (31.33, α)	19.54	Adjusted Chi Square Value (31.33, β)	19.44
95% Gamma Approximate KM-UCL (use when n>=50)	42.05	95% Gamma Adjusted KM-UCL (use when n<50)	42.28

NAPHTHALENE (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	25.69
Maximum	690	Median	0.01
SD	75.04	CV	2.921
k hat (MLE)	0.168	k star (bias corrected MLE)	0.169
Theta hat (MLE)	152.7	Theta star (bias corrected MLE)	151.6
nu hat (MLE)	42.73	nu star (bias corrected)	43.05
MLE Mean (bias corrected)	25.69	MLE Sd (bias corrected)	62.4
		Adjusted Level of Significance (β)	0.0481
Approximate Chi Square Value (43.05, α)	29.01	Adjusted Chi Square Value (43.05, β)	28.87
95% Gamma Approximate UCL (use when n>=50)	38.13	95% Gamma Adjusted UCL (use when n<50)	38.3

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0853	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.122	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	26.98	Mean in Log Scale	1.692
SD in Original Scale	74.61	SD in Log Scale	1.813
95% t UCL (assumes normality of ROS data)	37.95	95% Percentile Bootstrap UCL	38.25
95% BCA Bootstrap UCL	43.75	95% Bootstrap t UCL	50.87
95% H-UCL (Log ROS)	45.84		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	1.009	95% H-UCL (KM -Log)	63.77
KM SD (logged)	2.214	95% Critical H Value (KM-Log)	3.518
KM Standard Error of Mean (logged)	0.2		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	27.5	Mean in Log Scale	1.252
SD in Original Scale	75.09	SD in Log Scale	2.167
95% t UCL (Assumes normality)	38.54	95% H-Stat UCL	71.33

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	39.23

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	12/22/2015 1:08:29 PM
From File	ProUCL Data - Surface Soil.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

NICKEL

General Statistics

Total Number of Observations	12	Number of Distinct Observations	9
		Number of Missing Observations	98
Minimum	0.21	Mean	6.345
Maximum	15	Median	6.5
SD	5.606	Std. Error of Mean	1.618
Coefficient of Variation	0.884	Skewness	0.288

Normal GOF Test

Shapiro Wilk Test Statistic	0.884	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.196	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.256	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	9.251	95% Adjusted-CLT UCL (Chen-1995)	9.151
		95% Modified-t UCL (Johnson-1978)	9.274

Gamma GOF Test

A-D Test Statistic	1.033	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.773	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.243	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.256	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.651	k star (bias corrected MLE)	0.544
Theta hat (MLE)	9.746	Theta star (bias corrected MLE)	11.67
nu hat (MLE)	15.63	nu star (bias corrected)	13.05
MLE Mean (bias corrected)	6.345	MLE Sd (bias corrected)	8.604
		Approximate Chi Square Value (0.05)	5.928
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	5.213

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	13.97	95% Adjusted Gamma UCL (use when n<50)	15.89

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.754	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.859	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.252	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.256	Data appear Lognormal at 5% Significance Level

Data appear Approximate Lognormal at 5% Significance Level

NICKEL (Continued)

Lognormal Statistics

Minimum of Logged Data	-1.561	Mean of logged Data	0.91
Maximum of Logged Data	2.708	SD of logged Data	1.866

Assuming Lognormal Distribution

95% H-UCL	196.2	90% Chebyshev (MVUE) UCL	28.99
95% Chebyshev (MVUE) UCL	37.37	97.5% Chebyshev (MVUE) UCL	48.99
99% Chebyshev (MVUE) UCL	71.83		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	9.007	95% Jackknife UCL	9.251
95% Standard Bootstrap UCL	8.845	95% Bootstrap-t UCL	9.431
95% Hall's Bootstrap UCL	8.937	95% Percentile Bootstrap UCL	9.061
95% BCA Bootstrap UCL	9.068		
90% Chebyshev(Mean, Sd) UCL	11.2	95% Chebyshev(Mean, Sd) UCL	13.4
97.5% Chebyshev(Mean, Sd) UCL	16.45	99% Chebyshev(Mean, Sd) UCL	22.45

Suggested UCL to Use

95% Student's-t UCL	9.251

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

HEXAVALENT CHROMIUM			
General Statistics			
Total Number of Observations	12	Number of Distinct Observations	7
		Number of Missing Observations	98
Minimum	0.395	Mean	0.764
Maximum	1.8	Median	0.55
SD	0.405	Std. Error of Mean	0.117
Coefficient of Variation	0.53	Skewness	1.823
Normal GOF Test			
Shapiro Wilk Test Statistic	0.773	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.285	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.256	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.974	95% Adjusted-CLT UCL (Chen-1995)	1.022
		95% Modified-t UCL (Johnson-1978)	0.984
Gamma GOF Test			
A-D Test Statistic	0.857	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.732	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.295	**Kolmogrov-Smirnoff Gamma GOF Test**	
5% K-S Critical Value	0.246	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	5.18	k star (bias corrected MLE)	3.941
Theta hat (MLE)	0.147	Theta star (bias corrected MLE)	0.194
nu hat (MLE)	124.3	nu star (bias corrected)	94.58
MLE Mean (bias corrected)	0.764	MLE Sd (bias corrected)	0.385
		Approximate Chi Square Value (0.05)	73.15
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	70.28
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	0.987	95% Adjusted Gamma UCL (use when n<50)	1.028
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.883	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.282	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.256	Data Not Lognormal at 5% Significance Level	
Data appear Approximate Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.929	Mean of logged Data	-0.369
Maximum of Logged Data	0.588	SD of logged Data	0.44
Assuming Lognormal Distribution			
95% H-UCL	1.002	90% Chebyshev (MVUE) UCL	1.048
95% Chebyshev (MVUE) UCL	1.181	97.5% Chebyshev (MVUE) UCL	1.365
99% Chebyshev (MVUE) UCL	1.727		

HEXAVALENT CHROMIUM (Continued)

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.956	95% Jackknife UCL	0.974
95% Standard Bootstrap UCL	0.948	95% Bootstrap-t UCL	1.191
95% Hall's Bootstrap UCL	1.811	95% Percentile Bootstrap UCL	0.975
95% BCA Bootstrap UCL	0.993		
90% Chebyshev(Mean, Sd) UCL	1.114	95% Chebyshev(Mean, Sd) UCL	1.273
97.5% Chebyshev(Mean, Sd) UCL	1.493	99% Chebyshev(Mean, Sd) UCL	1.926

Suggested UCL to Use

95% Student's-t UCL	0.974	or 95% Modified-t UCL	0.984

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Subsurface Soil

PROUCL OUTPUT SUBSURFACE SOIL BLOCK D EXCLUDING THE PANHANDLE

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	12/23/2015 8:58:16 AM
From File	ProUCL Data - Subsurface Soil.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

BAP EQUIVALENT-HALFND

General Statistics

Total Number of Observations	141	Number of Distinct Observations	112
Number of Detects	103	Number of Non-Detects	38
Number of Distinct Detects	95	Number of Distinct Non-Detects	17
Minimum Detect	1.332	Minimum Non-Detect	0.71
Maximum Detect	1777	Maximum Non-Detect	410
Variance Detects	119295	Percent Non-Detects	26.95%
Mean Detects	183.5	SD Detects	345.4
Median Detects	52.34	CV Detects	1.882
Skewness Detects	2.807	Kurtosis Detects	7.844
Mean of Logged Detects	3.858	SD of Logged Detects	1.738

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.562	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.317	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0873	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	134.7	Standard Error of Mean	25.79
SD	304.7	95% KM (BCA) UCL	181.8
95% KM (t) UCL	177.4	95% KM (Percentile Bootstrap) UCL	180.1
95% KM (z) UCL	177.1	95% KM Bootstrap t UCL	189.1
90% KM Chebyshev UCL	212	95% KM Chebyshev UCL	247.1
97.5% KM Chebyshev UCL	295.7	99% KM Chebyshev UCL	391.3

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.494	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.825	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.143	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.0941	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.473	k star (bias corrected MLE)	0.466
Theta hat (MLE)	387.9	Theta star (bias corrected MLE)	393.9
nu hat (MLE)	97.47	nu star (bias corrected)	95.96
MLE Mean (bias corrected)	183.5	MLE Sd (bias corrected)	268.9

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.195	nu hat (KM)	55.1
Approximate Chi Square Value (55.10, α)	39.04	Adjusted Chi Square Value (55.10, β)	38.9
95% Gamma Approximate KM-UCL (use when n>=50)	190.1	95% Gamma Adjusted KM-UCL (use when n<50)	190.7

BAP EQUIVALENT-HALFND (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	134.1
Maximum	1777	Median	20
SD	305.9	CV	2.282
k hat (MLE)	0.219	k star (bias corrected MLE)	0.219
Theta hat (MLE)	613.5	Theta star (bias corrected MLE)	613.2
nu hat (MLE)	61.63	nu star (bias corrected)	61.65
MLE Mean (bias corrected)	134.1	MLE Sd (bias corrected)	286.7
		Adjusted Level of Significance (β)	0.0483
Approximate Chi Square Value (61.65, α)	44.59	Adjusted Chi Square Value (61.65, β)	44.44
95% Gamma Approximate UCL (use when n>=50)	185.3	95% Gamma Adjusted UCL (use when n<50)	186

Lognormal GOF Test on Detected Observations Only

Lilliefors Test Statistic	0.0601	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0873	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	134.5	Mean in Log Scale	2.857
SD in Original Scale	305.7	SD in Log Scale	2.265
95% t UCL (assumes normality of ROS data)	177.1	95% Percentile Bootstrap UCL	178.9
95% BCA Bootstrap UCL	184.1	95% Bootstrap t UCL	189.5
95% H-UCL (Log ROS)	451.7		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	2.802	95% H-UCL (KM -Log)	482.6
KM SD (logged)	2.308	95% Critical H Value (KM-Log)	3.659
KM Standard Error of Mean (logged)	0.198		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	135.8	Mean in Log Scale	2.823
SD in Original Scale	305.7	SD in Log Scale	2.325
95% t UCL (Assumes normality)	178.4	95% H-Stat UCL	517.9

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	295.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

NAPHTHALENE			
General Statistics			
Total Number of Observations	63	Number of Distinct Observations	44
		Number of Missing Observations	78
Number of Detects	31	Number of Non-Detects	32
Number of Distinct Detects	28	Number of Distinct Non-Detects	16
Minimum Detect	2.88	Minimum Non-Detect	0.89
Maximum Detect	450	Maximum Non-Detect	4.6
Variance Detects	10851	Percent Non-Detects	50.79%
Mean Detects	53.26	SD Detects	104.2
Median Detects	13	CV Detects	1.956
Skewness Detects	2.762	Kurtosis Detects	7.348
Mean of Logged Detects	2.865	SD of Logged Detects	1.343
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.523	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.929	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.393	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.159	Detected Data Not Normal at 5% Significance Level	
Detected Data Not Normal at 5% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	26.7	Standard Error of Mean	9.796
SD	76.49	95% KM (BCA) UCL	44.89
95% KM (t) UCL	43.05	95% KM (Percentile Bootstrap) UCL	43.86
95% KM (z) UCL	42.81	95% KM Bootstrap t UCL	58.74
90% KM Chebyshev UCL	56.08	95% KM Chebyshev UCL	69.4
97.5% KM Chebyshev UCL	87.87	99% KM Chebyshev UCL	124.2
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	3.001	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.804	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.246	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.166	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	0.562	k star (bias corrected MLE)	0.529
Theta hat (MLE)	94.74	Theta star (bias corrected MLE)	100.6
nu hat (MLE)	34.85	nu star (bias corrected)	32.81
MLE Mean (bias corrected)	53.26	MLE Sd (bias corrected)	73.21
Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.122	nu hat (KM)	15.35
Approximate Chi Square Value (15.35, α)	7.505	Adjusted Chi Square Value (15.35, β)	7.377
95% Gamma Approximate KM-UCL (use when n>=50)	54.6	95% Gamma Adjusted KM-UCL (use when n<50)	55.55

NAPHTHALENE (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	26.21
Maximum	450	Median	0.01
SD	77.27	CV	2.948
k hat (MLE)	0.179	k star (bias corrected MLE)	0.181
Theta hat (MLE)	146.8	Theta star (bias corrected MLE)	145.1
nu hat (MLE)	22.49	nu star (bias corrected)	22.75
MLE Mean (bias corrected)	26.21	MLE Sd (bias corrected)	61.68
		Adjusted Level of Significance (β)	0.0462
Approximate Chi Square Value (22.75, α)	12.91	Adjusted Chi Square Value (22.75, β)	12.73
95% Gamma Approximate UCL (use when n>=50)	46.21	95% Gamma Adjusted UCL (use when n<50)	46.85

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.89	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.929	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.148	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.159	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	26.54	Mean in Log Scale	1.067
SD in Original Scale	77.16	SD in Log Scale	2.092
95% t UCL (assumes normality of ROS data)	42.77	95% Percentile Bootstrap UCL	43.84
95% BCA Bootstrap UCL	49.11	95% Bootstrap t UCL	55.78
95% H-UCL (Log ROS)	60.05		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	1.372	95% H-UCL (KM -Log)	33.4
KM SD (logged)	1.745	95% Critical H Value (KM-Log)	2.77
KM Standard Error of Mean (logged)	0.225		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	26.73	Mean in Log Scale	1.303
SD in Original Scale	77.09	SD in Log Scale	1.876
95% t UCL (Assumes normality)	42.95	95% H-Stat UCL	42.94

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	44.89

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MERCURY			
General Statistics			
Total Number of Observations	18	Number of Distinct Observations	17
		Number of Missing Observations	95
Number of Detects	10	Number of Non-Detects	8
Number of Distinct Detects	10	Number of Distinct Non-Detects	7
Minimum Detect	0.028	Minimum Non-Detect	0.019
Maximum Detect	0.38	Maximum Non-Detect	0.064
Variance Detects	0.0201	Percent Non-Detects	44.44%
Mean Detects	0.16	SD Detects	0.142
Median Detects	0.0765	CV Detects	0.887
Skewness Detects	0.567	Kurtosis Detects	-1.801
Mean of Logged Detects	-2.269	SD of Logged Detects	1.019
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.805	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.842	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.281	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.28	Detected Data Not Normal at 5% Significance Level	
Detected Data Not Normal at 5% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	0.0996	Standard Error of Mean	0.0301
SD	0.121	95% KM (BCA) UCL	0.149
95% KM (t) UCL	0.152	95% KM (Percentile Bootstrap) UCL	0.151
95% KM (z) UCL	0.149	95% KM Bootstrap t UCL	0.167
90% KM Chebyshev UCL	0.19	95% KM Chebyshev UCL	0.231
97.5% KM Chebyshev UCL	0.287	99% KM Chebyshev UCL	0.399
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	0.754	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.743	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.24	**Kolmogrov-Smirnoff GOF**	
5% K-S Critical Value	0.272	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	1.292	k star (bias corrected MLE)	0.971
Theta hat (MLE)	0.124	Theta star (bias corrected MLE)	0.164
nu hat (MLE)	25.84	nu star (bias corrected)	19.42
MLE Mean (bias corrected)	0.16	MLE Sd (bias corrected)	0.162
Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.68	nu hat (KM)	24.48
Approximate Chi Square Value (24.48, α)	14.21	Adjusted Chi Square Value (24.48, β)	13.46
95% Gamma Approximate KM-UCL (use when n>=50)	0.172	95% Gamma Adjusted KM-UCL (use when n<50)	0.181

MERCURY (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.0932
Maximum	0.38	Median	0.032
SD	0.128	CV	1.378
k hat (MLE)	0.653	k star (bias corrected MLE)	0.582
Theta hat (MLE)	0.143	Theta star (bias corrected MLE)	0.16
nu hat (MLE)	23.52	nu star (bias corrected)	20.94
MLE Mean (bias corrected)	0.0932	MLE Sd (bias corrected)	0.122
		Adjusted Level of Significance (β)	0.0357
Approximate Chi Square Value (20.94, α)	11.54	Adjusted Chi Square Value (20.94, β)	10.88
95% Gamma Approximate UCL (use when n>=50)	0.169	95% Gamma Adjusted UCL (use when n<50)	0.179

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.869	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.842	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.227	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.28	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.0954	Mean in Log Scale	-3.172
SD in Original Scale	0.127	SD in Log Scale	1.314
95% t UCL (assumes normality of ROS data)	0.147	95% Percentile Bootstrap UCL	0.145
95% BCA Bootstrap UCL	0.152	95% Bootstrap t UCL	0.17
95% H-UCL (Log ROS)	0.269		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-2.938	95% H-UCL (KM -Log)	0.188
KM SD (logged)	1.063	95% Critical H Value (KM-Log)	2.731
KM Standard Error of Mean (logged)	0.27		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.0975	Mean in Log Scale	-3.061
SD in Original Scale	0.126	SD in Log Scale	1.226
95% t UCL (Assumes normality)	0.149	95% H-Stat UCL	0.241

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (BCA) UCL	0.149	95% GROS Adjusted Gamma UCL	0.179
95% Adjusted Gamma KM-UCL	0.181		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

APPENDIX H—BACKFILL AND COMPACTION DOCUMENTATION

HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Rd. Suite A
Annapolis Junction, MD 20701
Phone:410-880-4788 Fax:410-880-4098

FIELD REPORT

Project No.: 13319A **Report No.:** **Date:** August 18, 2015

Project Name: Middle River Ground Water Rem **Weather/Temp:** 85

Client: Elite Environmental **Travel Time:** hr **Lunch Time:** hr

Contractor: **On Site Time:** hr **Total Time:** 3 hr

A. Description of Work:

HCEA Rep reported to job site as requested by client to perform testing and make observation of contractor's work.

HCEA Rep performed field in-place density testing in general conformance with ASTM D 6938 nuclear density method on grade elevlation of Area A, B, C, E; excavations were previously backfilled and compacted by contractor.

Field density test results were minimum 95% of the maximum dry density as determined by the Modified Proctor for borrow trench backfill for Area A, B, and C and 90% of the max dry density for Area E.

SHOULD BE LABELED AREA BLOCK "D"

B. Tests Performed

Dynamic cone penetrometer.

C: Problems Non-Compliance ☐

Fill encountered, bearing capacity, utility line in footing footprint

D. Equipment & Crew

Verification: _____ **Reviewed By:** _____ **Technician:** Jerome Wilson Jr.

HILLIS-CARNES ENGINEERING ASSOCIATES, INC

Field Density Test Summary

Project Name: Middle River Ground Water Rem

Job No.: 13319A

Client: Middle River Groung Water Rem

Date: August 18, 2015

Page: 1 of:

Test#		Location	Soil ID	Percent Moisture	Dry Density	Percent Compaction	Percent Required	Elevation	Remarks
1		SHOULD BE LABELED: Area A EXCAVATION A	A	7.9	125.4	99.4	95	grade	
2		Area A EXCAVATION A	A	8.2	121	96.0	95	grade	
3		Area B EXCAVATION B	A	7.7	120.4	95.5	95	grade	
4		Area B EXCAVATION B	A	8.2	120.8	95.8	95	grade	
5		Area C EXCAVATION C	A	7.5	121.1	96.0	95	grade	
6		Area C EXCAVATION C	A	6.9	120.5	95.6	95	grade	
7		Area E EXCAVATION E	A	10	117.5	93.2	90	grade	
8		Area E EXCAVATION E	A	7.6	117	92.8	90	grade	

Soil ID	Description	Proctor Method	OMC %	MDD lbs./cu. ft.	Remarks
A	brown clayey sand with rock	modified		126.1	
B					
C					
D					
E					

Field Technician: Jerome Wilson Jr.

Reviewed By:

V4.1

BLUEGRASS
MATERIALS COMPANY

Maryland Market Area
Quality Control Laboratory

August 20, 2014

Camz
Attn: Bill

RE: Preserve @ Windlass Project

Gentlemen:

This is to certify that the brown CR-6 dolomitic marble Crusher Run, as produced at our Texas, Maryland Quarry, meets the specifications of the 2001 Maryland State Highway Administration, Section 901.01 and ASTM 2008 Book of Standards, volume 04.03 D2940-98 Graded Aggregate Material for Bases and Subbases for Highways or Airports. This material also meets the Baltimore County 2000 Specification for Crusher Run Aggregate Table 901A test method T 27 and the City of Baltimore requirements for this type material.

This material is free of hazardous contaminants and is a naturally occurring product of nature containing crushed dolomitic marble. No controlled hazardous substances or oil is used in the extraction, production, or loading processes. Therefore, to the best of my knowledge, the CR-6 material from the Texas, Maryland facility has not been contaminated by controlled hazardous substance or petroleum products.

CR-6 CRUSHER RUN

SIEVE SIZE	AVERAGE GRADATION	CR-6 Specs.
2"	100.0	100
1 1/2"	100.0	90-100
1"	92.0	
3/4"	82.0	60-90
1/2"	68.0	
3/8"	61.0	
¼	53.0*	
#4	49.0	30-60
#8	43.0	
#10	40.0*	
#16	38.0	
#30	32.0	
#40	26.0*	
#50	22.0	
#100	14.0	
#200(wet)	8.5	0-15

*Estimated from Mineral Aggregate Gradation Curve

10,000 Beaver Dam Road - Cockeysville Maryland 21030
Phone: 443-506-0535
Email: MMcgarity@bluegrassmaterials.com

BLUEGRASS
MATERIALS COMPANY

Maryland Market Area
Quality Control Laboratory

Maximum Dry Density
(T-180 Method D) - 144.35 pcf
2.00 ton/cy
Optimum Moisture Content - 4.0%
Sodium Sulfate Soundness - 2.6% loss (AASHTO T104)
Liquid Limit - 19 (AASHTO T89)
Plasticity Index - Non-Plastic (AASHTO T90)
Absorption (1 1/2"-#4) - 0.5%

This material complies with other specifications as set forth in the ASTM and Maryland State Highway Administration requirements, regarding deleterious substances, abrasion and soundness. The information provided in this certification is to be used as a guide line. The material is subject to change due to the nature and geological formation of the quarry.

Sincerely,

Lynn McGarity

Lynn McGarity (Parry)
Quality Control Manager - Aggregates
Maryland Market Area

10,000 Beaver Dam Road - Cockeysville Maryland 21030
Phone: 443-506-0535
Email: MMcgarity@bluegrassmaterials.com

SELECT BORROW

MOISTURE DENSITY RELATIONSHIP TEST REPORT
ASTM D 1557-07 Method B Modified

Project No.: 01632x1 **Date:**

Project: Honeygo Run Reclamation Center

Client: Honeygo Run Reclamation Center, LLC

Source of Sample: PO# 4659589

Sample Number: Select Backfill

Remarks:

MATERIAL DESCRIPTION

Description: Silty SAND

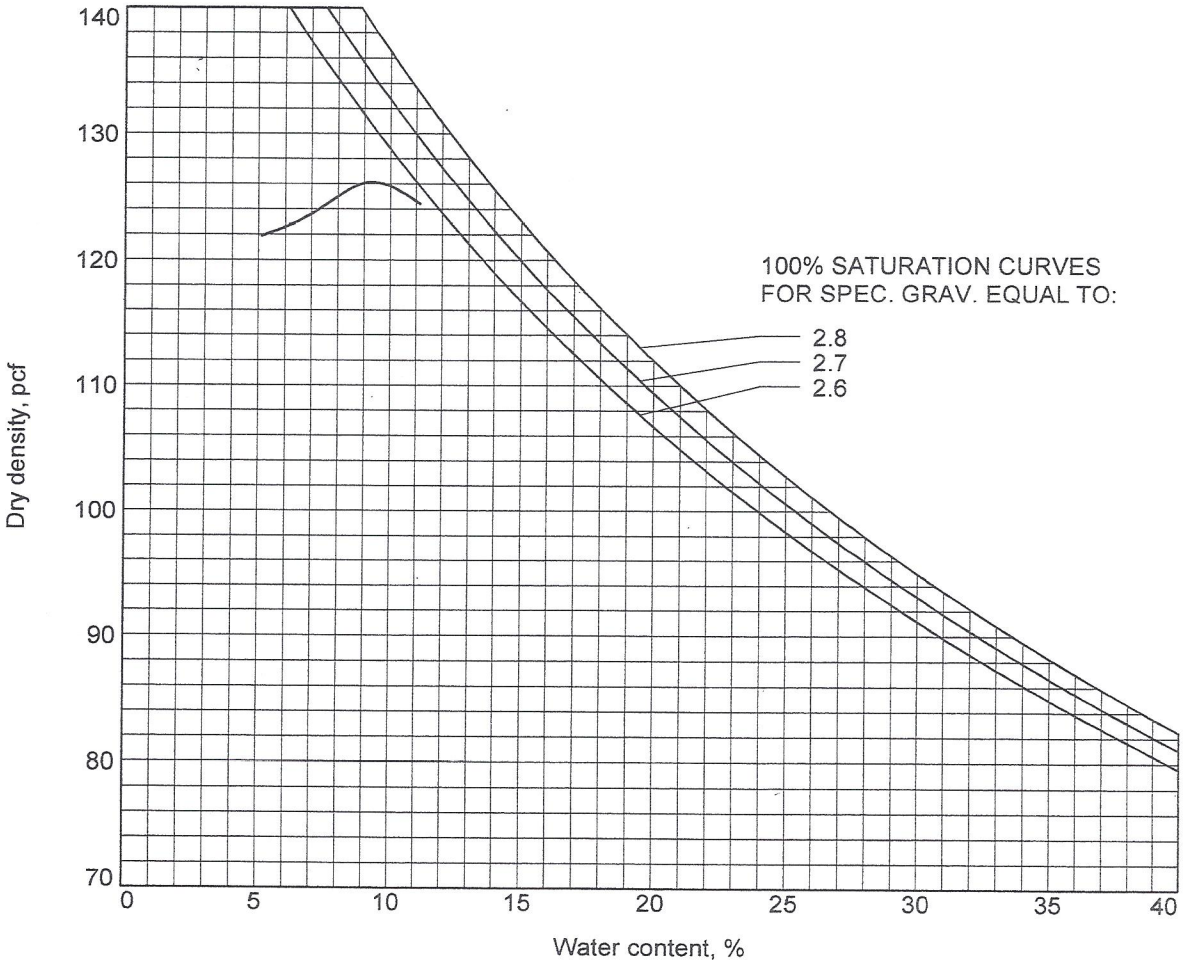
Classifications - **USCS:** SM **AASHTO:** A-2-4(0)

Nat. Moist. = 7.3 % **Sp.G. =** 2.75

Liquid Limit = NP **Plasticity Index =** NP

% < No.200 = 27.5 %

TEST RESULTS
Maximum dry density = 126.1 pcf
Optimum moisture = 9.3 %

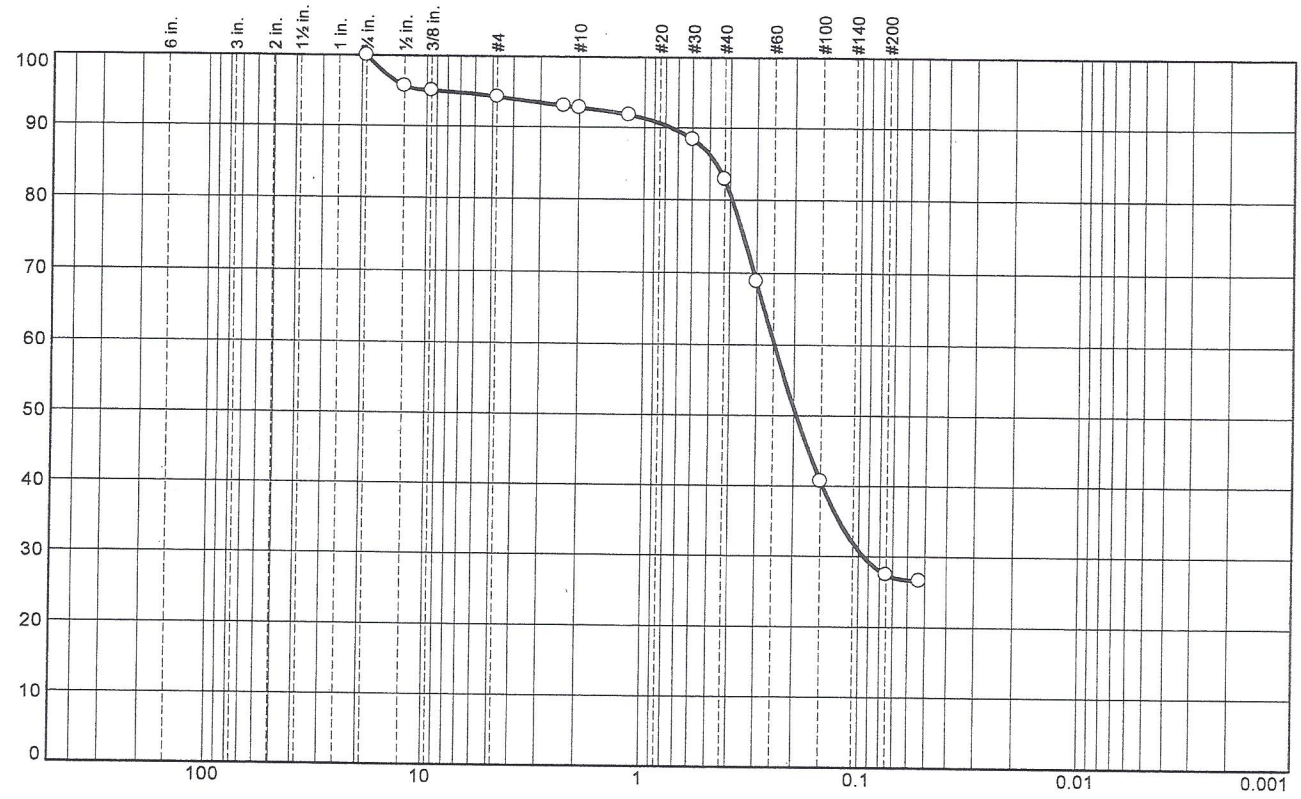


ASTM Specifications performed may include: D421, D422, D2216, D2217, and D4318.

Geo-Technology Associates, Inc.

Tested By: J. Watkins **Checked By:** T. Wirth

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	5.8	1.5	9.8	55.4	27.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
.5	95.6		
.375	95.0		
#4	94.2		
#8	93.0		
#10	92.7		
#16	91.8		
#30	88.4		
#40	82.9		
#50	68.9		
#100	40.7		
#200	27.5		
#270	26.6		

* (no specification provided)

Soil Description

Silty SAND

Atterberg Limits

PL= NP LL= NP PI= NP NM= 7.3

Coefficients

D_{90}= 0.7506 D_{85}= 0.4639 D_{60}= 0.2464
D_{50}= 0.1943 D_{30}= 0.0949 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Source of Sample: PO# 4659589
Sample Number: Select Backfill

Date: 11/6/14

ASTM Specifications performed may include: D421, D422, D2216, D2217, and D4318.

GEO-TECHNOLOGY ASSOCIATES, INC.
3445-A Box Hill Corporate Center Drive
Abingdon, MD 21009

Client: Honeygo Run Reclamation Center, LLC
Project: Honeygo Run Reclamation Center
Project No: 01632x1

Tested By: J. Watkins **Checked By:** T. Wirth

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-49010-1

Job Description: MRC-Middle River

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage



Approved for release.
John McFadden
Project Manager I
4/14/2015 3:31 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/14/2015

cc: Samantha Brenner
Ms. Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC-Middle River

Report Number: 240-49010-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Bulk Asbestos analysis was performed at the EMLab P&K Denver laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/7/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample TB-040615 (240-49010-2) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 04/09/2015.

Methylene Chloride and Naphthalene were detected in method blank MB 240-175483/8 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone was detected in method blank MB 240-175730/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Sample FILL-001 (240-49010-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The sample was prepared and analyzed on 04/08/2015.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample FILL-001 (240-49010-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The sample was prepared on 04/08/2015 and analyzed on 04/10/2015.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-175545/18-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GASOLINE RANGE ORGANICS

Sample FILL-001 (240-49010-1) was analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015C - GRO. The sample was prepared on 04/08/2015 and analyzed on 04/09/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS (DRO)

Sample FILL-001 (240-49010-1) was analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015C - DRO. The sample was prepared on 04/08/2015 and analyzed on 04/10/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)

Sample FILL-001 (240-49010-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The sample was prepared on 04/08/2015 and analyzed on 04/10/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS (ICP)

Sample FILL-001 (240-49010-1) was analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The sample was prepared on 04/08/2015 and analyzed on 04/09/2015 and 04/10/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Sample FILL-001 (240-49010-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The sample was prepared on 04/08/2015 and analyzed on 04/09/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Sample FILL-001 (240-49010-1) was analyzed for percent solids in accordance with EPA Method 160.3 MOD. The sample was analyzed on 04/07/2015.

Percent Moisture exceeded the RPD limit for the duplicate of sample FILL-001DU (240-49010-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 173591

Lab Sample ID: STD5 240-173591/2 IC Client Sample ID:

Date Analyzed: 03/25/15 09:23 Lab File ID: 50325002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.25	Poor Chromatography	ulmanm	03/25/15 10:14
Benzaldehyde	6.08	Poor Chromatography	ulmanm	03/25/15 10:14
Benzoic acid	7.29	Poor Chromatography	ulmanm	03/25/15 10:14
4-Chloroaniline	7.63	Poor Chromatography	ulmanm	03/25/15 10:14
Benzo[k]fluoranthene	14.03	Poor Chromatography	ulmanm	03/25/15 10:14

Lab Sample ID: STD4 240-173591/3 IC Client Sample ID:

Date Analyzed: 03/25/15 09:48 Lab File ID: 50325003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.26	Poor Chromatography	ulmanm	03/25/15 10:15
N-Nitrosodimethylamine	3.72	Poor Chromatography	ulmanm	03/25/15 10:15
Benzoic acid	7.28	Poor Chromatography	ulmanm	03/25/15 10:19

Lab Sample ID: STD3 240-173591/4 IC Client Sample ID:

Date Analyzed: 03/25/15 10:13 Lab File ID: 50325004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.25	Poor Chromatography	ulmanm	03/25/15 10:41
N-Nitrosodimethylamine	3.71	Poor Chromatography	ulmanm	03/25/15 10:41
Benzoic acid	7.27	Poor Chromatography	ulmanm	03/25/15 10:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 173591

Lab Sample ID: STD2 240-173591/5 IC Client Sample ID:

Date Analyzed: 03/25/15 10:38 Lab File ID: 50325005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.25	Poor Chromatography	ulmanm	03/25/15 11:08
Pyridine	3.78	Poor Chromatography	ulmanm	03/25/15 11:08
Pentachlorophenol	10.21	Poor Chromatography	ulmanm	03/25/15 11:08
Dibenz(a,h)anthracene	16.64	Poor Chromatography	ulmanm	03/25/15 11:08

Lab Sample ID: STD1 240-173591/6 IC Client Sample ID:

Date Analyzed: 03/25/15 11:04 Lab File ID: 50325006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	16.63	Poor Chromatography	ulmanm	03/25/15 11:35
Dibenz(a,h)anthracene	16.65	Poor Chromatography	ulmanm	03/25/15 11:35
Benzo[g,h,i]perylene	17.27	Poor Chromatography	ulmanm	03/25/15 11:35

Lab Sample ID: STD9 240-173591/7 IC Client Sample ID:

Date Analyzed: 03/25/15 11:29 Lab File ID: 50325007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	7.35	Poor Chromatography	ulmanm	03/25/15 12:19
Caprolactam	7.94	Poor Chromatography	ulmanm	03/25/15 12:19

Lab Sample ID: STD8 240-173591/8 IC Client Sample ID:

Date Analyzed: 03/25/15 11:54 Lab File ID: 50325008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.94	Poor Chromatography	ulmanm	03/25/15 12:21

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 173591

Lab Sample ID: STD7 240-173591/9 IC Client Sample ID:

Date Analyzed: 03/25/15 12:20 Lab File ID: 50325009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.93	Poor Chromatography	ulmanm	03/25/15 12:48

Lab Sample ID: STD6 240-173591/10 ICIS Client Sample ID:

Date Analyzed: 03/25/15 12:45 Lab File ID: 50325010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	7.92	Poor Chromatography	ulmanm	03/25/15 13:11

Lab Sample ID: ICV 240-173591/11 Client Sample ID:

Date Analyzed: 03/25/15 14:02 Lab File ID: 50325011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	3.25	Poor Chromatography	ulmanm	03/25/15 14:34
N-Nitrosodimethylamine	3.71	Poor Chromatography	ulmanm	03/25/15 14:34
Benzoic acid	7.30	Poor Chromatography	ulmanm	03/25/15 14:34
Caprolactam	7.92	Poor Chromatography	ulmanm	03/25/15 14:34

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A4HP9 Analysis Batch Number: 175891

Lab Sample ID: CCV 240-175891/2 CCVIS Client Sample ID:

Date Analyzed: 04/10/15 08:11 Lab File ID: 50410002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.66	Poor Chromatography	ulmanm	04/10/15 08:42
Benzoic acid	7.20	Poor Chromatography	ulmanm	04/10/15 08:42

Lab Sample ID: LCS 240-175545/19-A Client Sample ID:

Date Analyzed: 04/10/15 09:52 Lab File ID: 50410006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	2.67	Poor Chromatography	ulmanm	04/10/15 10:23

Lab Sample ID: 240-49010-1 Client Sample ID: FILL-001

Date Analyzed: 04/10/15 16:57 Lab File ID: 50410023.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	13.75	Poor Chromatography	ulmanm	04/13/15 08:05
Benzo[k]fluoranthene	13.77	Poor Chromatography	ulmanm	04/13/15 08:05

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP4 Analysis Batch Number: 175923

Lab Sample ID: CCV 240-175923/3 CCVRT Client Sample ID:

Date Analyzed: 04/10/15 11:01 Lab File ID: P4000003.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloro-m-xylene	1.75	Baseline Event	bosworthh	04/10/15 13:04

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-49010-1	FILL-001	Solid	04/06/2015 1500	04/07/2015 0915
240-49010-2TB	TB-040615	Water	04/06/2015 0000	04/07/2015 0915

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-49010-1	**FILL-001**					
Anthracene		3.9	J	7.3	ug/Kg	8270D
Benzo[a]anthracene		8.0		7.3	ug/Kg	8270D
Benzo[a]pyrene		7.7		7.3	ug/Kg	8270D
Benzo[b]fluoranthene		8.9		7.3	ug/Kg	8270D
Benzo[k]fluoranthene		4.2	J	7.3	ug/Kg	8270D
Bis(2-ethylhexyl) phthalate		24	J B	76	ug/Kg	8270D
Chrysene		9.3		7.3	ug/Kg	8270D
Fluoranthene		16		7.3	ug/Kg	8270D
Phenanthrene		11		7.3	ug/Kg	8270D
Pyrene		15		7.3	ug/Kg	8270D
Total Petroleum Hydrocarbons (C10-C32)		18		18	mg/Kg	8015C
Arsenic		0.40	J	1.3	mg/Kg	6010C
Barium		2.6	J	18	mg/Kg	6010C
Cobalt		0.054	J	0.89	mg/Kg	6010C
Chromium		11		0.89	mg/Kg	6010C
Copper		1.1	J	2.2	mg/Kg	6010C
Molybdenum		0.13	J	3.6	mg/Kg	6010C
Nickel		0.21	J	3.6	mg/Kg	6010C
Lead		0.39	J	0.89	mg/Kg	6010C
Vanadium		21		0.89	mg/Kg	6010C
Zinc		1.3	J	4.5	mg/Kg	6010C
Percent Solids		93		0.10	%	Moisture
Percent Moisture		7.4		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
General Sub Contract Method		Subcontract	
Volatile Organic Compounds by GC/MS	TAL CAN	SW846 8260C	
Purge and Trap	TAL CAN		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270D	
Soxhlet Extraction	TAL CAN		SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CAN	SW846 8015C	
Purge and Trap	TAL CAN		SW846 5030A
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL CAN	SW846 8015C	
Soxhlet Extraction	TAL CAN		SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL CAN	SW846 8082A	
Soxhlet Extraction	TAL CAN		SW846 3540C
Metals (Custom List)	TAL CAN	SW846 6010C	
Preparation, Metals	TAL CAN		SW846 3050B
Mercury (CVAA)	TAL CAN	SW846 7471A	
Preparation, Mercury	TAL CAN		SW846 7471A
Percent Moisture	TAL CAN	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL CAN	SW846 8260B	
Purge and Trap	TAL CAN		SW846 5030B

Lab References:

TAL CAN = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method	Analyst	Analyst ID
SW846 8260B	Quayle, Rick	RJQ
SW846 8260C	Macenczak, Steven	SAM
SW846 8270D	Ulman, Mark	MRU
SW846 8015C	Reed, Rachel T	RTR
SW846 8015C	Bolgrin, Deborah	DEB
SW846 8082A	Bosworth, Heather M	HMB
SW846 6010C	Counts, Karen	KLC
SW846 6010C	Sutherland, Aaron	ADS
SW846 7471A	Walpole, Barbara	BW
EPA Moisture	Matheny, Sarah	SEM

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **TB-040615**

Lab Sample ID: 240-49010-2TB Date Sampled: 04/06/2015 0000
Client Matrix: Water Date Received: 04/07/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7102.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 1834			Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 1834				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.28	U	0.28	1.0
1,1,1-Trichloroethane	0.44	U	0.44	1.0
1,1,2,2-Tetrachloroethane	0.22	U	0.22	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	0.45	1.0
1,1-Dichloroethane	0.30	U	0.30	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
1,1-Dichloropropene	0.42	U	0.42	1.0
1,2,3-Trichlorobenzene	0.37	U	0.37	1.0
1,2,3-Trichloropropane	0.44	U	0.44	1.0
1,2,3-Trimethylbenzene	0.47	U	0.47	5.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.41	U	0.41	1.0
1,2-Dibromo-3-Chloropropane	0.82	U	0.82	2.0
1,2-Dichlorobenzene	0.25	U	0.25	1.0
1,2-Dichloroethane	0.23	U	0.23	1.0
1,2-Dichloropropane	0.25	U	0.25	1.0
1,3-Dichlorobenzene	0.19	U	0.19	1.0
1,3-Dichloropropane	0.19	U	0.19	1.0
1,4-Dichlorobenzene	0.27	U	0.27	1.0
2,2-Dichloropropane	0.26	U	0.26	1.0
2-Chloroethyl vinyl ether	0.59	U	0.59	10
2-Chlorotoluene	0.40	U	0.40	1.0
2-Hexanone	0.48	U	0.48	10
Bromobenzene	0.35	U	0.35	1.0
Bromochloromethane	0.50	U	0.50	1.0
4-Chlorotoluene	0.29	U	0.29	1.0
p-Isopropyltoluene	0.43	U	0.43	1.0
Acetone	0.94	U	0.94	10
Benzene	0.35	U	0.35	1.0
Bromoform	0.56	U	0.56	1.0
Bromomethane	0.44	U	0.44	1.0
Carbon disulfide	0.38	U	0.38	1.0
Carbon tetrachloride	0.43	U	0.43	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	0.32	U	0.32	1.0
Chloroform	0.25	U	0.25	1.0
Chloromethane	0.44	U	0.44	1.0
cis-1,2-Dichloroethene	0.26	U	0.26	1.0
cis-1,3-Dichloropropene	0.46	U	0.46	1.0
Hexachlorobutadiene	0.35	U	0.35	1.0
Dibromomethane	0.42	U	0.42	1.0
Bromodichloromethane	0.29	U	0.29	1.0
Dichlorodifluoromethane	0.32	U	0.32	1.0
Ethylbenzene	0.25	U	0.25	1.0
1,2-Dibromoethane	0.32	U	0.32	1.0
Diisopropyl ether	0.50	U	0.50	10

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **TB-040615**

Lab Sample ID: 240-49010-2TB Date Sampled: 04/06/2015 0000
Client Matrix: Water Date Received: 04/07/2015 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7102.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 1834			Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 1834				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.45	U	0.45	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
n-Butylbenzene	0.31	U	0.31	1.0
Isopropylbenzene	0.35	U	0.35	1.0
N-Propylbenzene	0.40	U	0.40	1.0
2-Butanone (MEK)	0.53	U	0.53	10
4-Methyl-2-pentanone (MIBK)	0.99	U	0.99	10
sec-Butylbenzene	0.48	U	0.48	1.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Tert-amyl methyl ether	0.30	U	0.30	5.0
Methylene Chloride	0.33	U	0.33	1.0
o-Xylene	0.25	U	0.25	1.0
Styrene	0.45	U	0.45	1.0
Ethyl t-butyl ether	0.23	U	0.23	5.0
tert-Butylbenzene	0.41	U	0.41	1.0
Tetrachloroethene	0.31	U	0.31	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.30	U	0.30	1.0
trans-1,3-Dichloropropene	0.56	U	0.56	1.0
Trichloroethene	0.22	U	0.22	1.0
Trichlorofluoromethane	0.49	U	0.49	1.0
Vinyl acetate	0.41	U	0.41	2.0
Vinyl chloride	0.29	U	0.29	1.0
tert-Butyl alcohol (TBA)	4.9	U	4.9	50
Xylenes, Total	0.52	U	0.52	2.0
Dibromochloromethane	0.43	U	0.43	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		63 - 129
4-Bromofluorobenzene (Surr)	100		66 - 120
Toluene-d8 (Surr)	94		74 - 120
Dibromofluoromethane (Surr)	92		75 - 121

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Prep Method:	5030C	Prep Batch:	240-175488	Lab File ID:	UX86865.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Analysis Date:	04/08/2015 1106			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		0.65	U	0.65	5.3
1,1,1-Trichloroethane		0.59	U	0.59	5.3
1,1,2,2-Tetrachloroethane		0.36	U	0.36	5.3
1,1,2-Trichloro-1,2,2-trifluoroethane		1.4	U	1.4	5.3
1,1-Dichloroethane		0.38	U	0.38	5.3
1,1-Dichloroethene		0.55	U	0.55	5.3
1,1-Dichloropropene		0.32	U	0.32	5.3
1,2,3-Trichlorobenzene		0.40	U	0.40	5.3
1,2,3-Trichloropropane		0.95	U	0.95	5.3
1,2,3-Trimethylbenzene		0.18	U	0.18	5.3
1,2,4-Trichlorobenzene		0.28	U	0.28	5.3
1,2,4-Trimethylbenzene		0.68	U	0.68	5.3
1,2-Dibromo-3-Chloropropane		1.4	U	1.4	11
1,2-Dichlorobenzene		0.38	U	0.38	5.3
1,2-Dichloroethane		0.36	U	0.36	5.3
1,2-Dichloropropane		0.72	U	0.72	5.3
1,3-Dichlorobenzene		0.37	U	0.37	5.3
1,3-Dichloropropane		0.36	U	0.36	5.3
1,4-Dichlorobenzene		0.69	U	0.69	5.3
2,2-Dichloropropane		0.99	U	0.99	5.3
2-Chloroethyl vinyl ether		1.5	U	1.5	53
2-Chlorotoluene		0.42	U	0.42	5.3
2-Hexanone		0.66	U	0.66	21
Bromobenzene		0.35	U	0.35	5.3
Bromochloromethane		0.75	U	0.75	5.3
4-Chlorotoluene		0.43	U	0.43	5.3
p-Isopropyltoluene		0.22	U	0.22	5.3
Acetone		6.6	U	6.6	21
Benzene		0.24	U	0.24	5.3
Bromoform		0.35	U	0.35	5.3
Bromomethane		0.57	U	0.57	5.3
Carbon disulfide		0.46	U	0.46	5.3
Carbon tetrachloride		0.39	U	0.39	5.3
Chlorobenzene		0.35	U	0.35	5.3
Chloroethane		0.90	U	0.90	5.3
Chloroform		0.30	U	0.30	5.3
Chloromethane		0.43	U	0.43	5.3
cis-1,2-Dichloroethene		0.38	U	0.38	5.3
cis-1,3-Dichloropropene		0.36	U	0.36	5.3
Hexachlorobutadiene		1.3	U	1.3	5.3
Dibromomethane		0.66	U	0.66	5.3
Bromodichloromethane		0.29	U	0.29	5.3
Dichlorodifluoromethane		0.53	U	0.53	5.3
Ethylbenzene		0.27	U	0.27	5.3
1,2-Dibromoethane		0.53	U	0.53	5.3
Diisopropyl ether		1.6	U	1.6	11

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Prep Method:	5030C	Prep Batch:	240-175488	Lab File ID:	UX86865.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Analysis Date:	04/08/2015 1106			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		0.20	U	0.20	5.3
m-Xylene & p-Xylene		1.3	U	1.3	11
n-Butylbenzene		0.24	U	0.24	5.3
Isopropylbenzene		0.17	U	0.17	5.3
N-Propylbenzene		0.42	U	0.42	5.3
2-Butanone (MEK)		1.5	U	1.5	21
4-Methyl-2-pentanone (MIBK)		0.57	U	0.57	21
sec-Butylbenzene		0.19	U	0.19	5.3
Methyl tert-butyl ether		0.45	U	0.45	5.3
Tert-amyl methyl ether		0.39	U	0.39	5.3
Methylene Chloride		0.70	U	0.70	5.3
o-Xylene		0.37	U	0.37	5.3
Styrene		0.16	U	0.16	5.3
Ethyl-t-butyl ether (ETBE)		0.23	U	0.23	5.3
tert-Butylbenzene		0.30	U	0.30	5.3
Tetrachloroethene		0.55	U	0.55	5.3
Toluene		0.28	U	0.28	5.3
trans-1,2-Dichloroethene		0.43	U	0.43	5.3
trans-1,3-Dichloropropene		0.57	U	0.57	5.3
Trichloroethene		0.44	U	0.44	5.3
Trichlorofluoromethane		0.36	U	0.36	5.3
Vinyl acetate		0.26	U F1 F2	0.26	11
Vinyl chloride		0.41	U	0.41	5.3
tert-Butyl alcohol (TBA)		8.0	U	8.0	210
Xylenes, Total		0.37	U	0.37	11
Dibromochloromethane		0.58	U	0.58	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82		58 - 123
4-Bromofluorobenzene (Surr)	88		52 - 136
Toluene-d8 (Surr)	98		67 - 125
Dibromofluoromethane (Surr)	89		37 - 132

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-175891	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-175545	Lab File ID:	50410023.D
Dilution:	1.0			Initial Weight/Volume:	29.69 g
Analysis Date:	04/10/2015 1657			Final Weight/Volume:	2 mL
Prep Date:	04/08/2015 0916			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		3.8	U	3.8	55
1,4-Dioxane		24	U	24	110
2,4,6-Trichlorophenol		9.7	U	9.7	160
2,4,5-Trichlorophenol		27	U	27	160
2,4-Dichlorophenol		22	U	22	160
2,4-Dimethylphenol		22	U	22	160
2,4-Dinitrophenol		23	U	23	360
2,4-Dinitrotoluene		19	U	19	220
2-Chloronaphthalene		0.49	U	0.49	55
2-Chlorophenol		8.9	U	8.9	55
2-Methylnaphthalene		0.55	U	0.55	7.3
2-Methylphenol		12	U	12	220
2-Nitroaniline		9.9	U	9.9	220
2-Nitrophenol		9.1	U	9.1	55
3 & 4 Methylphenol		22	U	22	440
3,3'-Dichlorobenzidine		20	U	20	110
3-Nitroaniline		17	U	17	220
4,6-Dinitro-2-methylphenol		10	U	10	160
4-Bromophenyl phenyl ether		14	U	14	55
4-Chloro-3-methylphenol		23	U	23	160
4-Chloroaniline		19	U	19	160
4-Chlorophenyl phenyl ether		14	U	14	55
4-Nitroaniline		28	U	28	220
Acenaphthene		0.83	U	0.83	7.3
Acenaphthylene		0.38	U	0.38	7.3
Acetophenone		10	U	10	110
Anthracene		3.9	J	0.85	7.3
Atrazine		9.9	U	9.9	220
Benzaldehyde		13	U	13	110
Benzo[a]anthracene		8.0		0.69	7.3
Benzo[a]pyrene		7.7		0.70	7.3
Benzo[b]fluoranthene		8.9		0.64	7.3
Benzo[g,h,i]perylene		0.38	U	0.38	7.3
Benzo[k]fluoranthene		4.2	J	0.74	7.3
Bis(2-chloroethoxy)methane		24	U	24	110
Bis(2-chloroethyl)ether		2.2	U	2.2	110
Bis(2-ethylhexyl) phthalate		24	J B	21	76
Butyl benzyl phthalate		11	U	11	76
Caprolactam		40	U	40	360
Carbazole		29	U	29	55
Chrysene		9.3		1.2	7.3
Di-n-butyl phthalate		16	U	16	76
Di-n-octyl phthalate		8.6	U	8.6	76
Dibenz(a,h)anthracene		0.72	U	0.72	7.3
Dibenzofuran		0.72	U	0.72	55
Diethyl phthalate		17	U	17	76

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-175891	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-175545	Lab File ID:	50410023.D
Dilution:	1.0			Initial Weight/Volume:	29.69 g
Analysis Date:	04/10/2015 1657			Final Weight/Volume:	2 mL
Prep Date:	04/08/2015 0916			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		19	U	19	76
Fluoranthene		16		0.60	7.3
Fluorene		0.58	U	0.58	7.3
Hexachlorobenzene		2.3	U	2.3	7.3
Hexachlorobutadiene		6.1	U	6.1	55
Hexachlorocyclopentadiene		8.8	U	8.8	360
Hexachloroethane		9.8	U	9.8	55
Indeno[1,2,3-cd]pyrene		0.38	U	0.38	7.3
Isophorone		14	U	14	55
N-Nitrosodi-n-propylamine		6.9	U	6.9	55
N-Nitrosodimethylamine		17	U	17	110
N-Nitrosodiphenylamine		23	U	23	55
Naphthalene		0.89	U	0.89	7.3
Nitrobenzene		2.4	U	2.4	110
Pentachlorophenol		9.9	U	9.9	160
Phenanthrene		11		0.80	7.3
Phenol		8.0	U	8.0	55
Pyrene		15		0.48	7.3
2,2'-oxybis[1-chloropropane]		10	U	10	110
2,6-Dinitrotoluene		23	U	23	220
4-Nitrophenol		19	U	19	360

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	77		36 - 110
Phenol-d5 (Surr)	73		26 - 110
Nitrobenzene-d5 (Surr)	63		20 - 110
2-Fluorophenol (Surr)	66		24 - 110
2-Fluorobiphenyl (Surr)	77		24 - 110
2,4,6-Tribromophenol (Surr)	36		10 - 110

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-175575	Instrument ID:	YPID
Prep Method:	5030A	Prep Batch:	240-175570	Initial Weight/Volume:	5.01 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	04/09/2015 0634			Injection Volume:	5 mL
Prep Date:	04/08/2015 1104			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics [C6 - C10]		50	U	50	110

Surrogate	%Rec	Qualifier	Acceptance Limits
Trifluorotoluene (Surr)	86		40 - 139

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-175823	Instrument ID:	A2HP5F
Prep Method:	3540C	Prep Batch:	240-175550	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	04/10/2015 0024			Injection Volume:	1 uL
Prep Date:	04/08/2015 0935			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		18		4.4	18

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl (Surr)	100		40 - 160

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-175923	Instrument ID:	A2HP4
Prep Method:	3540C	Prep Batch:	240-175553	Initial Weight/Volume:	30.00 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	04/10/2015 1527			Injection Volume:	1 uL
Prep Date:	04/08/2015 0949			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		13	U	13	36
Aroclor-1221		17	U	17	36
Aroclor-1232		22	U	22	36
Aroclor-1242		12	U	12	36
Aroclor-1248		8.6	U	8.6	36
Aroclor-1254		15	U	15	36
Aroclor-1260		9.7	U	9.7	36

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		29 - 151
DCB Decachlorobiphenyl	104		14 - 163

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500
Client Matrix: Solid % Moisture: 7.4 Date Received: 04/07/2015 0915

6010C Metals (Custom List)

Analysis Method:	6010C	Analysis Batch:	240-175886	Instrument ID:	I12
Prep Method:	3050B	Prep Batch:	240-175558	Lab File ID:	I12040915A.asc
Dilution:	1.0			Initial Weight/Volume:	1.21 g
Analysis Date:	04/09/2015 1004			Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1026				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		0.056	U	0.056	0.89
Arsenic		0.40	J	0.37	1.3
Barium		2.6	J	0.37	18
Beryllium		0.023	U	0.023	0.45
Cadmium		0.019	U	0.019	0.45
Cobalt		0.054	J	0.042	0.89
Chromium		11		0.067	0.89
Molybdenum		0.13	J	0.053	3.6
Nickel		0.21	J	0.071	3.6
Lead		0.39	J	0.020	0.89
Selenium		0.30	U	0.30	1.8
Vanadium		21		0.18	0.89
Zinc		1.3	J	0.50	4.5
Antimony		0.43	U	0.43	1.8
Thallium		0.12	U	0.12	1.8

Analysis Method:	6010C	Analysis Batch:	240-175933	Instrument ID:	I9
Prep Method:	3050B	Prep Batch:	240-175558	Lab File ID:	I9041015A.asc
Dilution:	1.0			Initial Weight/Volume:	1.21 g
Analysis Date:	04/10/2015 1009			Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1026				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Copper		1.1	J	0.21	2.2

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	240-175776	Instrument ID:	H4
Prep Method:	7471A	Prep Batch:	240-175585	Lab File ID:	040915AHG4.PRN
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Analysis Date:	04/09/2015 1046			Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.015	U	0.015	0.11

General Chemistry

Client Sample ID: **FILL-001**

Lab Sample ID: 240-49010-1 Date Sampled: 04/06/2015 1500

Client Matrix: Solid Date Received: 04/07/2015 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-175452	Analysis Date: 04/07/2015 1517						DryWt Corrected: N
Percent Moisture	7.4		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-175452	Analysis Date: 04/07/2015 1517						DryWt Corrected: N

Client: Tetra Tech, Inc.

Job Number: 240-49010-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-49010-2	TB-040615	92	95	94	100
MB 240-175730/6		93	94	96	98
LCS 240-175730/4		94	93	96	98
240-49022-A-1 MS		92	93	95	99
240-49022-D-1 MSD		94	92	97	101

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Client: Tetra Tech, Inc.

Job Number: 240-49010-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-49010-1	FILL-001	89	82	98	88
MB 240-175483/8		94	91	98	90
LCS 240-175483/6		97	90	100	97
240-49010-1 MS	FILL-001 MS	97	88	106	98
240-49010-1 MSD	FILL-001 MSD	93	86	98	91

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
240-49010-1	FILL-001	66	73	63	77	36	77
MB 240-175545/18-A		77	81	75	82	42	78
LCS 240-175545/19-A		83	85	83	82	72	76

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: Tetra Tech, Inc.

Job Number: 240-49010-1

Surrogate Recovery Report

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TFT1 %Rec
240-49010-1	FILL-001	86
MB 240-175570/1-A		81
LCS 240-175570/2-A		100
180-42592-G-10-C MS		81
180-42592-G-10-D MSD		90

Surrogate	Acceptance Limits
TFT = Trifluorotoluene (Surr)	40-139

Client: Tetra Tech, Inc.

Job Number: 240-49010-1

Surrogate Recovery Report

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH1 %Rec
240-49010-1	FILL-001	100
MB 240-175550/7-A		92
LCS 240-175550/8-A		87
240-49010-1 MS	FILL-001 MS	93
240-49010-1 MSD	FILL-001 MSD	87

Surrogate	Acceptance Limits
OTPH = o-Terphenyl (Surr)	40-160

Client: Tetra Tech, Inc.

Job Number: 240-49010-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCB1 %Rec
240-49010-1	FILL-001	88	104
MB 240-175553/17-A		61	95
LCS 240-175553/18-A		64	101

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	29-151
DCB = DCB Decachlorobiphenyl	14-163

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175730

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-175730/6	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7085.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 1206	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 1206				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.28	U	0.28	1.0
1,1,1-Trichloroethane	0.44	U	0.44	1.0
1,1,2,2-Tetrachloroethane	0.22	U	0.22	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	0.45	1.0
1,1-Dichloroethane	0.30	U	0.30	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
1,1-Dichloropropene	0.42	U	0.42	1.0
1,2,3-Trichlorobenzene	0.37	U	0.37	1.0
1,2,3-Trichloropropane	0.44	U	0.44	1.0
1,2,3-Trimethylbenzene	0.47	U	0.47	5.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.41	U	0.41	1.0
1,2-Dibromo-3-Chloropropane	0.82	U	0.82	2.0
1,2-Dichlorobenzene	0.25	U	0.25	1.0
1,2-Dichloroethane	0.23	U	0.23	1.0
1,2-Dichloropropane	0.25	U	0.25	1.0
1,3-Dichlorobenzene	0.19	U	0.19	1.0
1,3-Dichloropropane	0.19	U	0.19	1.0
1,4-Dichlorobenzene	0.27	U	0.27	1.0
2,2-Dichloropropane	0.26	U	0.26	1.0
2-Chloroethyl vinyl ether	0.59	U	0.59	10
2-Chlorotoluene	0.40	U	0.40	1.0
2-Hexanone	0.48	U	0.48	10
Bromobenzene	0.35	U	0.35	1.0
Bromochloromethane	0.50	U	0.50	1.0
4-Chlorotoluene	0.29	U	0.29	1.0
p-Isopropyltoluene	0.43	U	0.43	1.0
Acetone	1.64	J	0.94	10
Benzene	0.35	U	0.35	1.0
Bromoform	0.56	U	0.56	1.0
Bromomethane	0.44	U	0.44	1.0
Carbon disulfide	0.38	U	0.38	1.0
Carbon tetrachloride	0.43	U	0.43	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	0.32	U	0.32	1.0
Chloroform	0.25	U	0.25	1.0
Chloromethane	0.44	U	0.44	1.0
cis-1,2-Dichloroethene	0.26	U	0.26	1.0
cis-1,3-Dichloropropene	0.46	U	0.46	1.0
Hexachlorobutadiene	0.35	U	0.35	1.0
Dibromomethane	0.42	U	0.42	1.0
Bromodichloromethane	0.29	U	0.29	1.0
Dichlorodifluoromethane	0.32	U	0.32	1.0
Ethylbenzene	0.25	U	0.25	1.0
1,2-Dibromoethane	0.32	U	0.32	1.0

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175730

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-175730/6	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7085.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 1206	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 1206				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Diisopropyl ether	0.50	U	0.50	10
Naphthalene	0.45	U	0.45	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
n-Butylbenzene	0.31	U	0.31	1.0
Isopropylbenzene	0.35	U	0.35	1.0
N-Propylbenzene	0.40	U	0.40	1.0
2-Butanone (MEK)	0.53	U	0.53	10
4-Methyl-2-pentanone (MIBK)	0.99	U	0.99	10
sec-Butylbenzene	0.48	U	0.48	1.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Tert-amyl methyl ether	0.30	U	0.30	5.0
Methylene Chloride	0.33	U	0.33	1.0
o-Xylene	0.25	U	0.25	1.0
Styrene	0.45	U	0.45	1.0
Ethyl t-butyl ether	0.23	U	0.23	5.0
tert-Butylbenzene	0.41	U	0.41	1.0
Tetrachloroethene	0.31	U	0.31	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.30	U	0.30	1.0
trans-1,3-Dichloropropene	0.56	U	0.56	1.0
Trichloroethene	0.22	U	0.22	1.0
Trichlorofluoromethane	0.49	U	0.49	1.0
Vinyl acetate	0.41	U	0.41	2.0
Vinyl chloride	0.29	U	0.29	1.0
tert-Butyl alcohol (TBA)	4.9	U	4.9	50
Xylenes, Total	0.52	U	0.52	2.0
Dibromochloromethane	0.43	U	0.43	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	63 - 129
4-Bromofluorobenzene (Surr)	98	66 - 120
Toluene-d8 (Surr)	96	74 - 120
Dibromofluoromethane (Surr)	93	75 - 121

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175730

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-175730/4	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7083.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 1120	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 1120				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	10.0	10.1	101	72 - 120	
1,1,1-Trichloroethane	10.0	10.4	104	74 - 120	
1,1,2,2-Tetrachloroethane	10.0	9.71	97	68 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.0	110	74 - 151	
1,1-Dichloroethane	10.0	10.5	105	80 - 120	
1,1-Dichloroethene	10.0	10.7	107	78 - 131	
1,1-Dichloropropene	10.0	10.8	108	80 - 120	
1,2,3-Trichlorobenzene	10.0	9.59	96	54 - 126	
1,2,3-Trichloropropane	10.0	10.2	102	73 - 129	
1,2,4-Trichlorobenzene	10.0	9.73	97	48 - 135	
1,2,4-Trimethylbenzene	10.0	9.75	97	76 - 120	
1,2-Dibromo-3-Chloropropane	10.0	10.2	102	42 - 136	
1,2-Dichlorobenzene	10.0	9.77	98	80 - 120	
1,2-Dichloroethane	10.0	10.4	104	71 - 127	
1,2-Dichloropropane	10.0	10.1	101	80 - 120	
1,3-Dichlorobenzene	10.0	9.82	98	80 - 120	
1,3-Dichloropropane	10.0	9.62	96	79 - 120	
1,4-Dichlorobenzene	10.0	9.90	99	80 - 120	
2,2-Dichloropropane	10.0	10.2	102	50 - 129	
2-Chloroethyl vinyl ether	12.0	12.4	103	52 - 131	
2-Chlorotoluene	10.0	10.1	101	76 - 120	
2-Hexanone	20.0	19.2	96	55 - 133	
Bromobenzene	10.0	10.1	101	76 - 120	
Bromochloromethane	10.0	9.90	99	77 - 120	
4-Chlorotoluene	10.0	9.62	96	77 - 120	
p-Isopropyltoluene	10.0	9.88	99	74 - 120	
Acetone	20.0	17.4	87	43 - 136	
Benzene	10.0	10.1	101	80 - 120	
Bromoform	10.0	9.74	97	40 - 131	
Bromomethane	10.0	8.58	86	11 - 185	
Carbon disulfide	10.0	10.9	109	62 - 142	
Carbon tetrachloride	10.0	10.8	108	66 - 128	
Chlorobenzene	10.0	9.79	98	80 - 120	
Chloroethane	10.0	8.70	87	25 - 153	
Chloroform	10.0	10.1	101	79 - 120	
Chloromethane	10.0	8.18	82	44 - 126	
cis-1,2-Dichloroethene	10.0	10.1	101	80 - 120	
cis-1,3-Dichloropropene	10.0	10.5	105	61 - 120	
Hexachlorobutadiene	10.0	9.48	95	36 - 134	
Dibromomethane	10.0	10.2	102	80 - 120	
Bromodichloromethane	10.0	9.81	98	72 - 121	
Dichlorodifluoromethane	10.0	7.10	71	19 - 129	
Ethylbenzene	10.0	10.1	101	80 - 120	
1,2-Dibromoethane	10.0	10.0	100	79 - 120	
Naphthalene	10.0	9.44	94	32 - 141	
m-Xylene & p-Xylene	10.0	9.83	98	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175730

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-175730/4	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7083.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 1120	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 1120				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
n-Butylbenzene	10.0	9.90	99	66 - 125	
Isopropylbenzene	10.0	9.91	99	75 - 120	
N-Propylbenzene	10.0	10.3	103	74 - 121	
2-Butanone (MEK)	20.0	19.9	100	60 - 126	
4-Methyl-2-pentanone (MIBK)	20.0	20.1	100	63 - 128	
sec-Butylbenzene	10.0	9.99	100	70 - 120	
Methyl tert-butyl ether	10.0	10.3	103	52 - 144	
Methylene Chloride	10.0	10.5	105	66 - 131	
o-Xylene	10.0	10.1	101	80 - 120	
Styrene	10.0	9.36	94	79 - 120	
tert-Butylbenzene	10.0	10.1	101	71 - 120	
Tetrachloroethene	10.0	10.1	101	79 - 120	
Toluene	10.0	10.0	100	80 - 120	
trans-1,2-Dichloroethene	10.0	10.6	106	80 - 120	
trans-1,3-Dichloropropene	10.0	10.8	108	58 - 120	
Trichloroethene	10.0	10.4	104	76 - 120	
Trichlorofluoromethane	10.0	10.0	100	49 - 157	
Vinyl acetate	10.0	7.85	78	46 - 161	
Vinyl chloride	10.0	8.68	87	53 - 127	
tert-Butyl alcohol (TBA)	100	95.3	95	70 - 130	
Xylenes, Total	20.0	19.9	100	80 - 120	
Dibromochloromethane	10.0	10.0	100	64 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	63 - 129
4-Bromofluorobenzene (Surr)	98	66 - 120
Toluene-d8 (Surr)	96	74 - 120
Dibromofluoromethane (Surr)	94	75 - 121

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175730

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-49022-A-1 MS	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7106.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 2005			Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 2005				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-49022-D-1 MSD	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7107.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 2028			Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 2028				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	95	95	68 - 121	1	30		
1,1,2,2-Tetrachloroethane	93	92	63 - 122	1	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	95	103	70 - 152	8	30		
1,1-Dichloroethane	99	100	79 - 120	1	30		
1,1-Dichloroethene	98	98	74 - 135	0	30		
1,2,4-Trichlorobenzene	74	81	38 - 138	9	30		
1,2-Dibromo-3-Chloropropane	93	91	32 - 139	3	30		
1,2-Dichlorobenzene	83	84	75 - 120	2	30		
1,2-Dichloroethane	98	97	68 - 129	1	30		
1,2-Dichloropropane	94	94	78 - 120	0	30		
1,3-Dichlorobenzene	79	83	73 - 120	5	30		
1,4-Dichlorobenzene	80	83	75 - 120	4	30		
2-Hexanone	94	99	47 - 139	6	30		
Acetone	74	76	33 - 145	3	30		
Benzene	95	94	72 - 121	1	30		
Bromoform	86	87	32 - 128	1	30		
Bromomethane	82	93	10 - 186	13	30		
Carbon disulfide	97	101	57 - 147	4	30		
Carbon tetrachloride	98	101	59 - 129	3	30		
Chlorobenzene	86	87	80 - 120	1	30		
Chloroethane	83	86	21 - 165	3	30		
Chloroform	95	94	76 - 120	1	30		
Chloromethane	80	82	33 - 132	2	30		
cis-1,2-Dichloroethene	95	96	70 - 120	1	30		
cis-1,3-Dichloropropene	92	92	51 - 120	1	30		
Bromodichloromethane	90	92	67 - 120	2	30		
Dichlorodifluoromethane	63	67	17 - 128	6	30		
Ethylbenzene	87	90	75 - 120	3	30		
1,2-Dibromoethane	95	96	74 - 120	1	30		
m-Xylene & p-Xylene	85	88	75 - 120	4	30		
Isopropylbenzene	83	88	68 - 120	5	30		
2-Butanone (MEK)	93	93	54 - 129	0	30		
4-Methyl-2-pentanone (MIBK)	103	102	56 - 131	1	30		

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175730

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-49022-A-1 MS	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7106.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 2005			Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 2005				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-49022-D-1 MSD	Analysis Batch:	240-175730	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM7107.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/09/2015 2028			Final Weight/Volume:	5 mL
Prep Date:	04/09/2015 2028				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Methyl tert-butyl ether	101	99	46 - 144	2	30		
Methylene Chloride	93	92	63 - 128	1	30		
o-Xylene	88	91	76 - 120	3	30		
Styrene	75	76	71 - 120	2	30		
Tetrachloroethene	87	89	70 - 120	3	30		
Toluene	90	92	78 - 120	1	30		
trans-1,2-Dichloroethene	94	97	80 - 120	3	30		
trans-1,3-Dichloropropene	96	98	46 - 120	1	30		
Trichloroethene	92	94	66 - 120	2	30		
Trichlorofluoromethane	90	97	46 - 157	8	30		
Vinyl chloride	80	80	49 - 130	1	30		
Xylenes, Total	87	90	76 - 120	3	30		
Dibromochloromethane	90	90	56 - 120	1	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	92	63 - 129
4-Bromofluorobenzene (Surr)	99	101	66 - 120
Toluene-d8 (Surr)	95	97	74 - 120
Dibromofluoromethane (Surr)	92	94	75 - 121

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175730

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-49022-A-1 MS	Units: ug/L	MSD Lab Sample ID:	240-49022-D-1 MSD	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/09/2015 2005		Analysis Date:	04/09/2015 2028	
Prep Date:	04/09/2015 2005		Prep Date:	04/09/2015 2028	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1,1-Trichloroethane	0.44	U	10.0	10.0	9.52	9.46
1,1,2,2-Tetrachloroethane	0.22	U	10.0	10.0	9.34	9.21
1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	10.0	10.0	9.50	10.3
1,1-Dichloroethane	0.30	U	10.0	10.0	9.95	10.0
1,1-Dichloroethene	0.45	U	10.0	10.0	9.80	9.82
1,2,4-Trichlorobenzene	0.32	U	10.0	10.0	7.42	8.11
1,2-Dibromo-3-Chloropropane	0.82	U	10.0	10.0	9.35	9.10
1,2-Dichlorobenzene	0.25	U	10.0	10.0	8.31	8.43
1,2-Dichloroethane	0.23	U	10.0	10.0	9.78	9.68
1,2-Dichloropropane	0.25	U	10.0	10.0	9.42	9.38
1,3-Dichlorobenzene	0.19	U	10.0	10.0	7.90	8.32
1,4-Dichlorobenzene	0.27	U	10.0	10.0	7.99	8.34
2-Hexanone	0.48	U	20.0	20.0	18.8	19.9
Acetone	1.8	J	20.0	20.0	16.6	17.0
Benzene	0.35	U	10.0	10.0	9.51	9.43
Bromoform	0.56	U	10.0	10.0	8.57	8.66
Bromomethane	0.44	U	10.0	10.0	8.15	9.27
Carbon disulfide	0.38	U	10.0	10.0	9.72	10.1
Carbon tetrachloride	0.43	U	10.0	10.0	9.81	10.1
Chlorobenzene	0.25	U	10.0	10.0	8.56	8.68
Chloroethane	0.32	U	10.0	10.0	8.31	8.58
Chloroform	0.25	U	10.0	10.0	9.50	9.36
Chloromethane	0.44	U	10.0	10.0	8.01	8.20
cis-1,2-Dichloroethene	0.26	U	10.0	10.0	9.51	9.63
cis-1,3-Dichloropropene	0.46	U	10.0	10.0	9.20	9.25
Bromodichloromethane	0.29	U	10.0	10.0	9.04	9.20
Dichlorodifluoromethane	0.32	U	10.0	10.0	6.26	6.65
Ethylbenzene	0.25	U	10.0	10.0	8.69	8.98
1,2-Dibromoethane	0.32	U	10.0	10.0	9.49	9.57
m-Xylene & p-Xylene	0.24	U	10.0	10.0	8.48	8.80
Isopropylbenzene	0.35	U	10.0	10.0	8.31	8.78
2-Butanone (MEK)	0.53	U	20.0	20.0	18.6	18.7
4-Methyl-2-pentanone (MIBK)	0.99	U	20.0	20.0	20.6	20.3
Methyl tert-butyl ether	0.20	U	10.0	10.0	10.1	9.86
Methylene Chloride	0.33	U	10.0	10.0	9.26	9.21
o-Xylene	0.25	U	10.0	10.0	8.84	9.13
Styrene	0.45	U	10.0	10.0	7.49	7.62
Tetrachloroethene	0.31	U	10.0	10.0	8.67	8.92
Toluene	0.23	U	10.0	10.0	9.03	9.17
trans-1,2-Dichloroethene	0.30	U	10.0	10.0	9.38	9.71
trans-1,3-Dichloropropene	0.56	U	10.0	10.0	9.63	9.77
Trichloroethene	0.22	U	10.0	10.0	9.24	9.44
Trichlorofluoromethane	0.49	U	10.0	10.0	8.96	9.75

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175730

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-49022-A-1 MS	Units:	ug/L	MSD Lab Sample ID:	240-49022-D-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/09/2015 2005			Analysis Date:	04/09/2015 2028
Prep Date:	04/09/2015 2005			Prep Date:	04/09/2015 2028
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Vinyl chloride	0.29	U	10.0	10.0	8.04	7.97
Xylenes, Total	0.52	U	20.0	20.0	17.3	17.9
Dibromochloromethane	0.43	U	10.0	10.0	9.03	8.96

Method Blank - Batch: 240-175483

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 240-175483/8	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX86844.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/08/2015 0314	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.62	U	0.62	5.0
1,1,1-Trichloroethane	0.56	U	0.56	5.0
1,1,2,2-Tetrachloroethane	0.34	U	0.34	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	U	1.3	5.0
1,1-Dichloroethane	0.36	U	0.36	5.0
1,1-Dichloroethene	0.52	U	0.52	5.0
1,1-Dichloropropene	0.30	U	0.30	5.0
1,2,3-Trichlorobenzene	0.38	U	0.38	5.0
1,2,3-Trichloropropane	0.90	U	0.90	5.0
1,2,3-Trimethylbenzene	0.17	U	0.17	5.0
1,2,4-Trichlorobenzene	0.27	U	0.27	5.0
1,2,4-Trimethylbenzene	0.65	U	0.65	5.0
1,2-Dibromo-3-Chloropropane	1.3	U	1.3	10
1,2-Dichlorobenzene	0.36	U	0.36	5.0
1,2-Dichloroethane	0.34	U	0.34	5.0
1,2-Dichloropropane	0.69	U	0.69	5.0
1,3-Dichlorobenzene	0.35	U	0.35	5.0
1,3-Dichloropropane	0.34	U	0.34	5.0
1,4-Dichlorobenzene	0.66	U	0.66	5.0
2,2-Dichloropropane	0.94	U	0.94	5.0
2-Chloroethyl vinyl ether	1.4	U	1.4	50
2-Chlorotoluene	0.40	U	0.40	5.0
2-Hexanone	0.63	U	0.63	20
Bromobenzene	0.33	U	0.33	5.0
Bromochloromethane	0.71	U	0.71	5.0
4-Chlorotoluene	0.41	U	0.41	5.0
p-Isopropyltoluene	0.21	U	0.21	5.0
Acetone	6.3	U	6.3	20
Benzene	0.23	U	0.23	5.0
Bromoform	0.33	U	0.33	5.0
Bromomethane	0.54	U	0.54	5.0
Carbon disulfide	0.44	U	0.44	5.0
Carbon tetrachloride	0.37	U	0.37	5.0
Chlorobenzene	0.33	U	0.33	5.0
Chloroethane	0.86	U	0.86	5.0
Chloroform	0.29	U	0.29	5.0
Chloromethane	0.41	U	0.41	5.0
cis-1,2-Dichloroethene	0.36	U	0.36	5.0
cis-1,3-Dichloropropene	0.34	U	0.34	5.0
Hexachlorobutadiene	1.2	U	1.2	5.0
Dibromomethane	0.63	U	0.63	5.0
Bromodichloromethane	0.28	U	0.28	5.0
Dichlorodifluoromethane	0.50	U	0.50	5.0
Ethylbenzene	0.26	U	0.26	5.0
1,2-Dibromoethane	0.50	U	0.50	5.0

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175483

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 240-175483/8	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX86844.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/08/2015 0314	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Diisopropyl ether	1.5	U	1.5	10
Naphthalene	0.412	J	0.19	5.0
m-Xylene & p-Xylene	1.2	U	1.2	10
n-Butylbenzene	0.23	U	0.23	5.0
Isopropylbenzene	0.16	U	0.16	5.0
N-Propylbenzene	0.40	U	0.40	5.0
2-Butanone (MEK)	1.4	U	1.4	20
4-Methyl-2-pentanone (MIBK)	0.54	U	0.54	20
sec-Butylbenzene	0.18	U	0.18	5.0
Methyl tert-butyl ether	0.43	U	0.43	5.0
Tert-amyl methyl ether	0.37	U	0.37	5.0
Methylene Chloride	0.696	J	0.67	5.0
o-Xylene	0.35	U	0.35	5.0
Styrene	0.15	U	0.15	5.0
Ethyl-t-butyl ether (ETBE)	0.22	U	0.22	5.0
tert-Butylbenzene	0.29	U	0.29	5.0
Tetrachloroethene	0.52	U	0.52	5.0
Toluene	0.27	U	0.27	5.0
trans-1,2-Dichloroethene	0.41	U	0.41	5.0
trans-1,3-Dichloropropene	0.54	U	0.54	5.0
Trichloroethene	0.42	U	0.42	5.0
Trichlorofluoromethane	0.34	U	0.34	5.0
Vinyl acetate	0.25	U	0.25	10
Vinyl chloride	0.39	U	0.39	5.0
tert-Butyl alcohol (TBA)	7.6	U	7.6	200
Xylenes, Total	0.35	U	0.35	10
Dibromochloromethane	0.55	U	0.55	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	58 - 123
4-Bromofluorobenzene (Surr)	90	52 - 136
Toluene-d8 (Surr)	98	67 - 125
Dibromofluoromethane (Surr)	94	37 - 132

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175483

Method: 8260C
Preparation: N/A

Lab Sample ID:	LCS 240-175483/6	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX86842.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/08/2015 0231	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	50.0	51.1	102	80 - 120	
1,1,1-Trichloroethane	50.0	47.9	96	77 - 126	
1,1,2,2-Tetrachloroethane	50.0	53.4	107	77 - 123	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.0	96	80 - 138	
1,1-Dichloroethane	50.0	47.0	94	76 - 120	
1,1-Dichloroethene	50.0	46.9	94	75 - 135	
1,1-Dichloropropene	50.0	52.6	105	80 - 120	
1,2,3-Trichlorobenzene	50.0	43.9	88	61 - 121	
1,2,3-Trichloropropane	50.0	55.7	111	80 - 126	
1,2,4-Trichlorobenzene	50.0	47.3	95	64 - 124	
1,2,4-Trimethylbenzene	50.0	50.9	102	80 - 129	
1,2-Dibromo-3-Chloropropane	50.0	58.8	118	61 - 132	
1,2-Dichlorobenzene	50.0	47.5	95	76 - 120	
1,2-Dichloroethane	50.0	44.7	89	72 - 120	
1,2-Dichloropropane	50.0	47.8	96	80 - 120	
1,3-Dichlorobenzene	50.0	48.1	96	78 - 120	
1,3-Dichloropropane	50.0	49.9	100	80 - 120	
1,4-Dichlorobenzene	50.0	46.4	93	75 - 120	
2,2-Dichloropropane	50.0	44.0	88	69 - 135	
2-Chloroethyl vinyl ether	60.0	79.2	132	28 - 173	
2-Chlorotoluene	50.0	51.1	102	78 - 120	
2-Hexanone	100	114	114	64 - 136	
Bromobenzene	50.0	50.3	101	80 - 120	
Bromochloromethane	50.0	48.7	97	79 - 120	
4-Chlorotoluene	50.0	50.8	102	79 - 120	
p-Isopropyltoluene	50.0	51.8	104	77 - 131	
Acetone	100	104	104	41 - 137	
Benzene	50.0	47.9	96	79 - 120	
Bromoform	50.0	49.5	99	62 - 133	
Bromomethane	50.0	50.1	100	42 - 136	
Carbon disulfide	50.0	51.2	102	62 - 146	
Carbon tetrachloride	50.0	49.9	100	71 - 129	
Chlorobenzene	50.0	47.4	95	78 - 120	
Chloroethane	50.0	48.0	96	58 - 120	
Chloroform	50.0	46.3	93	77 - 120	
Chloromethane	50.0	37.9	76	50 - 120	
cis-1,2-Dichloroethene	50.0	50.0	100	76 - 120	
cis-1,3-Dichloropropene	50.0	54.0	108	74 - 128	
Hexachlorobutadiene	50.0	45.0	90	54 - 131	
Dibromomethane	50.0	49.6	99	80 - 120	
Bromodichloromethane	50.0	51.3	103	80 - 122	
Dichlorodifluoromethane	50.0	31.9	64	26 - 120	
Ethylbenzene	50.0	49.2	98	79 - 120	
1,2-Dibromoethane	50.0	53.3	107	80 - 120	
Naphthalene	50.0	52.1	104	65 - 123	
m-Xylene & p-Xylene	50.0	50.8	102	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175483

Method: 8260C
Preparation: N/A

Lab Sample ID:	LCS 240-175483/6	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX86842.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/08/2015 0231	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
n-Butylbenzene	50.0	51.8	104	68 - 135	
Isopropylbenzene	50.0	52.6	105	76 - 122	
N-Propylbenzene	50.0	54.6	109	80 - 129	
2-Butanone (MEK)	100	101	101	52 - 131	
4-Methyl-2-pentanone (MIBK)	100	114	114	67 - 135	
sec-Butylbenzene	50.0	52.5	105	74 - 129	
Methyl tert-butyl ether	50.0	49.5	99	49 - 165	
Methylene Chloride	50.0	50.2	100	75 - 120	
o-Xylene	50.0	51.6	103	80 - 120	
Styrene	50.0	51.2	102	80 - 120	
tert-Butylbenzene	50.0	58.2	116	76 - 126	
Tetrachloroethene	50.0	47.1	94	79 - 120	
Toluene	50.0	47.8	96	75 - 120	
trans-1,2-Dichloroethene	50.0	50.5	101	78 - 120	
trans-1,3-Dichloropropene	50.0	56.2	112	73 - 131	
Trichloroethene	50.0	49.9	100	79 - 120	
Trichlorofluoromethane	50.0	46.8	94	57 - 146	
Vinyl acetate	50.0	36.8	74	70 - 130	
Vinyl chloride	50.0	41.4	83	57 - 120	
tert-Butyl alcohol (TBA)	500	571	114	60 - 125	
Xylenes, Total	100	102	102	80 - 120	
Dibromochloromethane	50.0	53.7	107	72 - 127	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90	58 - 123
4-Bromofluorobenzene (Surr)	97	52 - 136
Toluene-d8 (Surr)	100	67 - 125
Dibromofluoromethane (Surr)	97	37 - 132

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175488

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-49010-1	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-175488	Lab File ID:	UX86866.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	04/08/2015 1127			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-49010-1	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-175488	Lab File ID:	UX86867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.21 g
Analysis Date:	04/08/2015 1148			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1,2-Tetrachloroethane	94	85	34 - 135	12	30		
1,1,1-Trichloroethane	85	80	51 - 128	9	30		
1,1,2,2-Tetrachloroethane	92	85	16 - 179	10	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	85	80	50 - 147	8	30		
1,1-Dichloroethane	89	82	54 - 122	10	30		
1,1-Dichloroethene	87	82	49 - 157	9	30		
1,1-Dichloropropene	92	87	50 - 122	9	30		
1,2,3-Trichlorobenzene	63	55	10 - 120	16	30		
1,2,3-Trichloropropane	95	91	32 - 174	7	30		
1,2,4-Trichlorobenzene	70	60	10 - 120	18	30		
1,2,4-Trimethylbenzene	86	75	10 - 173	17	30		
1,2-Dibromo-3-Chloropropane	89	83	10 - 153	9	30		
1,2-Dichlorobenzene	83	73	17 - 122	15	30		
1,2-Dichloroethane	81	78	49 - 123	7	30		
1,2-Dichloropropane	88	82	61 - 120	10	30		
1,3-Dichlorobenzene	82	74	16 - 126	13	30		
1,3-Dichloropropane	91	86	54 - 128	8	30		
1,4-Dichlorobenzene	79	70	15 - 121	14	30		
2,2-Dichloropropane	81	69	49 - 132	18	30		
2-Chloroethyl vinyl ether	140	135	10 - 162	7	30	J	J
2-Chlorotoluene	93	83	11 - 162	14	30		
2-Hexanone	84	83	37 - 147	4	30		
Bromobenzene	93	81	24 - 144	16	30		
Bromochloromethane	90	86	53 - 120	7	30		
4-Chlorotoluene	89	81	15 - 149	12	30		
p-Isopropyltoluene	84	72	10 - 165	17	30		
Acetone	71	76	24 - 140	4	30		
Benzene	89	83	53 - 120	9	30		
Bromoform	77	70	18 - 129	11	30		
Bromomethane	93	78	33 - 130	19	30		
Carbon disulfide	88	83	20 - 151	8	30		
Carbon tetrachloride	84	80	32 - 137	7	30		
Chlorobenzene	89	82	37 - 120	11	30		

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175488

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-49010-1	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-175488	Lab File ID:	UX86866.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	04/08/2015 1127			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-49010-1	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-175488	Lab File ID:	UX86867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.21 g
Analysis Date:	04/08/2015 1148			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chloroethane	88	75	45 - 120	18	30		
Chloroform	88	80	53 - 120	12	30		
Chloromethane	73	64	34 - 120	15	30		
cis-1,2-Dichloroethene	95	86	50 - 120	12	30		
cis-1,3-Dichloropropene	92	85	27 - 133	11	30		
Hexachlorobutadiene	64	51	10 - 131	26	30		
Dibromomethane	92	84	52 - 123	12	30		
Bromodichloromethane	89	85	35 - 132	8	30		
Dichlorodifluoromethane	55	49	17 - 120	14	30		
Ethylbenzene	89	81	30 - 131	12	30		
1,2-Dibromoethane	97	91	45 - 127	9	30		
Naphthalene	78	73	10 - 124	10	30		
m-Xylene & p-Xylene	90	82	29 - 131	11	30		
n-Butylbenzene	79	65	10 - 148	22	30		
Isopropylbenzene	93	83	21 - 134	14	30		
N-Propylbenzene	93	82	10 - 178	14	30		
2-Butanone (MEK)	83	82	30 - 143	4	30		
4-Methyl-2-pentanone (MIBK)	89	88	43 - 147	3	30		
sec-Butylbenzene	89	76	10 - 172	18	30		
Methyl tert-butyl ether	90	84	51 - 157	10	30		
Methylene Chloride	99	89	54 - 120	14	30		
o-Xylene	97	84	29 - 134	17	30		
Styrene	90	80	27 - 127	14	30		
tert-Butylbenzene	104	82	10 - 163	26	30		
Tetrachloroethene	86	76	31 - 135	15	30		
Toluene	91	83	39 - 129	12	30		
trans-1,2-Dichloroethene	92	87	50 - 123	8	30		
trans-1,3-Dichloropropene	92	85	28 - 137	11	30		
Trichloroethene	90	85	10 - 177	9	30		
Trichlorofluoromethane	84	76	36 - 142	13	30		
Vinyl acetate	4	1	70 - 130	106	30	J F1	J F1 F2
Vinyl chloride	77	71	42 - 120	12	30		
tert-Butyl alcohol (TBA)	86	90	60 - 125	2	30		

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175488

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-49010-1	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-175488	Lab File ID:	UX86866.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	04/08/2015 1127			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-49010-1	Analysis Batch:	240-175483	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-175488	Lab File ID:	UX86867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.21 g
Analysis Date:	04/08/2015 1148			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0523				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Xylenes, Total	93	83	30 - 131	14	30		
Dibromochloromethane	94	82	29 - 135	16	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88	86	58 - 123
4-Bromofluorobenzene (Surr)	98	91	52 - 136
Toluene-d8 (Surr)	106	98	67 - 125
Dibromofluoromethane (Surr)	97	93	37 - 132

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175488

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-49010-1	Units:	ug/Kg	MSD Lab Sample ID:	240-49010-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/08/2015 1127			Analysis Date:	04/08/2015 1148
Prep Date:	04/08/2015 0523			Prep Date:	04/08/2015 0523
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
1,1,1,2-Tetrachloroethane	0.65	U	26.6	25.9	24.9		22.1	
1,1,1-Trichloroethane	0.59	U	26.6	25.9	22.7		20.8	
1,1,2,2-Tetrachloroethane	0.36	U	26.6	25.9	24.5		22.1	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	U	26.6	25.9	22.5		20.8	
1,1-Dichloroethane	0.38	U	26.6	25.9	23.7		21.3	
1,1-Dichloroethene	0.55	U	26.6	25.9	23.2		21.2	
1,1-Dichloropropene	0.32	U	26.6	25.9	24.6		22.5	
1,2,3-Trichlorobenzene	0.40	U	26.6	25.9	16.8		14.2	
1,2,3-Trichloropropane	0.95	U	26.6	25.9	25.4		23.7	
1,2,4-Trichlorobenzene	0.28	U	26.6	25.9	18.6		15.6	
1,2,4-Trimethylbenzene	0.68	U	26.6	25.9	23.0		19.4	
1,2-Dibromo-3-Chloropropane	1.4	U	26.6	25.9	23.6		21.5	
1,2-Dichlorobenzene	0.38	U	26.6	25.9	22.0		19.0	
1,2-Dichloroethane	0.36	U	26.6	25.9	21.6		20.1	
1,2-Dichloropropane	0.72	U	26.6	25.9	23.4		21.2	
1,3-Dichlorobenzene	0.37	U	26.6	25.9	21.7		19.1	
1,3-Dichloropropane	0.36	U	26.6	25.9	24.3		22.4	
1,4-Dichlorobenzene	0.69	U	26.6	25.9	21.0		18.3	
2,2-Dichloropropane	0.99	U	26.6	25.9	21.4		17.9	
2-Chloroethyl vinyl ether	1.5	U	31.9	31.1	44.8	J	41.8	J
2-Chlorotoluene	0.42	U	26.6	25.9	24.6		21.4	
2-Hexanone	0.66	U	53.1	51.8	44.9		43.3	
Bromobenzene	0.35	U	26.6	25.9	24.7		21.0	
Bromochloromethane	0.75	U	26.6	25.9	24.0		22.4	
4-Chlorotoluene	0.43	U	26.6	25.9	23.7		20.9	
p-Isopropyltoluene	0.22	U	26.6	25.9	22.2		18.7	
Acetone	6.6	U	53.1	51.8	37.8		39.3	
Benzene	0.24	U	26.6	25.9	23.6		21.4	
Bromoform	0.35	U	26.6	25.9	20.4		18.3	
Bromomethane	0.57	U	26.6	25.9	24.6		20.3	
Carbon disulfide	0.46	U	26.6	25.9	23.4		21.5	
Carbon tetrachloride	0.39	U	26.6	25.9	22.3		20.8	
Chlorobenzene	0.35	U	26.6	25.9	23.7		21.1	
Chloroethane	0.90	U	26.6	25.9	23.3		19.4	
Chloroform	0.30	U	26.6	25.9	23.5		20.9	
Chloromethane	0.43	U	26.6	25.9	19.4		16.7	
cis-1,2-Dichloroethene	0.38	U	26.6	25.9	25.1		22.3	
cis-1,3-Dichloropropene	0.36	U	26.6	25.9	24.5		21.9	
Hexachlorobutadiene	1.3	U	26.6	25.9	17.1		13.2	
Dibromomethane	0.66	U	26.6	25.9	24.5		21.8	
Bromodichloromethane	0.29	U	26.6	25.9	23.7		21.9	
Dichlorodifluoromethane	0.53	U	26.6	25.9	14.7		12.8	
Ethylbenzene	0.27	U	26.6	25.9	23.6		20.9	

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175488

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-49010-1	Units:	ug/Kg	MSD Lab Sample ID:	240-49010-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/08/2015 1127			Analysis Date:	04/08/2015 1148
Prep Date:	04/08/2015 0523			Prep Date:	04/08/2015 0523
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
1,2-Dibromoethane	0.53	U	26.6	25.9	25.8		23.6	
Naphthalene	0.20	U	26.6	25.9	20.8		18.8	
m-Xylene & p-Xylene	1.3	U	26.6	25.9	23.9		21.3	
n-Butylbenzene	0.24	U	26.6	25.9	20.9		16.8	
Isopropylbenzene	0.17	U	26.6	25.9	24.6		21.4	
N-Propylbenzene	0.42	U	26.6	25.9	24.7		21.4	
2-Butanone (MEK)	1.5	U	53.1	51.8	44.2		42.7	
4-Methyl-2-pentanone (MIBK)	0.57	U	53.1	51.8	47.2		45.8	
sec-Butylbenzene	0.19	U	26.6	25.9	23.6		19.6	
Methyl tert-butyl ether	0.45	U	26.6	25.9	24.0		21.8	
Methylene Chloride	0.70	U	26.6	25.9	26.4		23.0	
o-Xylene	0.37	U	26.6	25.9	25.7		21.7	
Styrene	0.16	U	26.6	25.9	24.0		20.8	
tert-Butylbenzene	0.30	U	26.6	25.9	27.5		21.1	
Tetrachloroethene	0.55	U	26.6	25.9	22.9		19.6	
Toluene	0.28	U	26.6	25.9	24.2		21.4	
trans-1,2-Dichloroethene	0.43	U	26.6	25.9	24.4		22.4	
trans-1,3-Dichloropropene	0.57	U	26.6	25.9	24.4		21.9	
Trichloroethene	0.44	U	26.6	25.9	24.0		21.9	
Trichlorofluoromethane	0.36	U	26.6	25.9	22.4		19.6	
Vinyl acetate	0.26	U	26.6	25.9	0.970	J F1	0.300	J F1 F2
Vinyl chloride	0.41	U	26.6	25.9	20.6		18.3	
tert-Butyl alcohol (TBA)	8.0	U	266	259	228		233	
Xylenes, Total	0.37	U	53.1	51.8	49.6		43.0	
Dibromochloromethane	0.58	U	26.6	25.9	24.9		21.2	

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175545

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-175545/18-A	Analysis Batch:	240-175891	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-175545	Lab File ID:	50410005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/10/2015 0927	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	04/08/2015 0916			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1'-Biphenyl	3.5	U	3.5	50
1,4-Dioxane	22	U	22	100
2,4,6-Trichlorophenol	8.9	U	8.9	150
2,4,5-Trichlorophenol	25	U	25	150
2,4-Dichlorophenol	20	U	20	150
2,4-Dimethylphenol	20	U	20	150
2,4-Dinitrophenol	21	U	21	330
2,4-Dinitrotoluene	17	U	17	200
2-Chloronaphthalene	0.45	U	0.45	50
2-Chlorophenol	8.2	U	8.2	50
2-Methylnaphthalene	0.50	U	0.50	6.7
2-Methylphenol	11	U	11	200
2-Nitroaniline	9.1	U	9.1	200
2-Nitrophenol	8.3	U	8.3	50
3 & 4 Methylphenol	20	U	20	400
3,3'-Dichlorobenzidine	18	U	18	100
3-Nitroaniline	16	U	16	200
4,6-Dinitro-2-methylphenol	9.2	U	9.2	150
4-Bromophenyl phenyl ether	13	U	13	50
4-Chloro-3-methylphenol	21	U	21	150
4-Chloroaniline	17	U	17	150
4-Chlorophenyl phenyl ether	13	U	13	50
4-Nitroaniline	26	U	26	200
Acenaphthene	0.76	U	0.76	6.7
Acenaphthylene	0.35	U	0.35	6.7
Acetophenone	9.2	U	9.2	100
Anthracene	0.78	U	0.78	6.7
Atrazine	9.1	U	9.1	200
Benzaldehyde	12	U	12	100
Benzo[a]anthracene	0.63	U	0.63	6.7
Benzo[a]pyrene	0.64	U	0.64	6.7
Benzo[b]fluoranthene	0.59	U	0.59	6.7
Benzo[g,h,i]perylene	0.35	U	0.35	6.7
Benzo[k]fluoranthene	0.68	U	0.68	6.7
Bis(2-chloroethoxy)methane	22	U	22	100
Bis(2-chloroethyl)ether	2.0	U	2.0	100
Bis(2-ethylhexyl) phthalate	91.6		19	70
Butyl benzyl phthalate	10	U	10	70
Caprolactam	37	U	37	330
Carbazole	27	U	27	50
Chrysene	1.1	U	1.1	6.7
Di-n-butyl phthalate	15	U	15	70
Di-n-octyl phthalate	7.9	U	7.9	70
Dibenz(a,h)anthracene	0.66	U	0.66	6.7
Dibenzofuran	0.66	U	0.66	50

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175545

Method: 8270D
Preparation: 3540C

Lab Sample ID:	MB 240-175545/18-A	Analysis Batch:	240-175891	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-175545	Lab File ID:	50410005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/10/2015 0927	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	04/08/2015 0916			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Diethyl phthalate	16	U	16	70
Dimethyl phthalate	17	U	17	70
Fluoranthene	0.55	U	0.55	6.7
Fluorene	0.53	U	0.53	6.7
Hexachlorobenzene	2.1	U	2.1	6.7
Hexachlorobutadiene	5.6	U	5.6	50
Hexachlorocyclopentadiene	8.1	U	8.1	330
Hexachloroethane	9.0	U	9.0	50
Indeno[1,2,3-cd]pyrene	0.35	U	0.35	6.7
Isophorone	13	U	13	50
N-Nitrosodi-n-propylamine	6.3	U	6.3	50
N-Nitrosodimethylamine	16	U	16	100
N-Nitrosodiphenylamine	21	U	21	50
Naphthalene	0.82	U	0.82	6.7
Nitrobenzene	2.2	U	2.2	100
Pentachlorophenol	9.1	U	9.1	150
Phenanthrene	0.73	U	0.73	6.7
Phenol	7.3	U	7.3	50
Pyrene	0.44	U	0.44	6.7
2,2'-oxybis[1-chloropropane]	9.5	U	9.5	100
2,6-Dinitrotoluene	21	U	21	200
4-Nitrophenol	17	U	17	330

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	78	36 - 110
Phenol-d5 (Surr)	81	26 - 110
Nitrobenzene-d5 (Surr)	75	20 - 110
2-Fluorophenol (Surr)	77	24 - 110
2-Fluorobiphenyl (Surr)	82	24 - 110
2,4,6-Tribromophenol (Surr)	42	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175545

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-175545/19-A	Analysis Batch:	240-175891	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-175545	Lab File ID:	50410006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/10/2015 0952	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	04/08/2015 0916			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	667	532	80	35 - 110	
1,4-Dioxane	667	336	50	10 - 110	
2,4,6-Trichlorophenol	667	491	74	12 - 110	
2,4,5-Trichlorophenol	667	479	72	25 - 110	
2,4-Dichlorophenol	667	557	83	39 - 110	
2,4-Dimethylphenol	667	427	64	29 - 110	
2,4-Dinitrophenol	1330	577	43	10 - 110	
2,4-Dinitrotoluene	667	584	88	48 - 110	
2-Chloronaphthalene	667	551	83	32 - 110	
2-Chlorophenol	667	546	82	37 - 110	
2-Methylnaphthalene	667	539	81	36 - 110	
2-Methylphenol	667	515	77	41 - 110	
2-Nitroaniline	667	560	84	45 - 110	
2-Nitrophenol	667	570	85	34 - 110	
3 & 4 Methylphenol	667	544	82	40 - 110	
3,3'-Dichlorobenzidine	1330	1040	78	28 - 110	
3-Nitroaniline	667	563	84	44 - 110	
4,6-Dinitro-2-methylphenol	1330	811	61	10 - 110	
4-Bromophenyl phenyl ether	667	566	85	39 - 110	
4-Chloro-3-methylphenol	667	552	83	48 - 110	
4-Chloroaniline	667	489	73	30 - 110	
4-Chlorophenyl phenyl ether	667	541	81	40 - 110	
4-Nitroaniline	667	560	84	48 - 110	
Acenaphthene	667	529	79	38 - 110	
Acenaphthylene	667	509	76	40 - 110	
Acetophenone	667	545	82	40 - 110	
Anthracene	667	525	79	48 - 110	
Atrazine	1330	1060	80	66 - 127	
Benzaldehyde	1330	1290	97	32 - 110	
Benzo[a]anthracene	667	527	79	50 - 110	
Benzo[a]pyrene	667	533	80	44 - 110	
Benzo[b]fluoranthene	667	521	78	43 - 110	
Benzo[g,h,i]perylene	667	625	94	51 - 110	
Benzo[k]fluoranthene	667	573	86	38 - 105	
Bis(2-chloroethoxy)methane	667	557	83	32 - 110	
Bis(2-chloroethyl)ether	667	540	81	34 - 110	
Bis(2-ethylhexyl) phthalate	667	576	86	50 - 110	
Butyl benzyl phthalate	667	524	79	51 - 110	
Caprolactam	1330	1230	92	44 - 114	
Carbazole	667	549	82	50 - 110	
Chrysene	667	568	85	50 - 110	
Di-n-butyl phthalate	667	584	88	51 - 110	
Di-n-octyl phthalate	667	524	79	48 - 110	
Dibenz(a,h)anthracene	667	593	89	51 - 110	
Dibenzofuran	667	540	81	43 - 110	
Diethyl phthalate	667	543	81	52 - 110	

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175545

Method: 8270D
Preparation: 3540C

Lab Sample ID:	LCS 240-175545/19-A	Analysis Batch:	240-175891	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-175545	Lab File ID:	50410006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/10/2015 0952	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	04/08/2015 0916			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Dimethyl phthalate	667	557	84	50 - 110	
Fluoranthene	667	561	84	51 - 110	
Fluorene	667	512	77	46 - 110	
Hexachlorobenzene	667	535	80	43 - 110	
Hexachlorobutadiene	667	580	87	29 - 110	
Hexachlorocyclopentadiene	667	379	57	12 - 110	
Hexachloroethane	667	533	80	30 - 110	
Indeno[1,2,3-cd]pyrene	667	602	90	50 - 110	
Isophorone	667	545	82	36 - 110	
N-Nitrosodi-n-propylamine	667	563	84	38 - 110	
N-Nitrosodimethylamine	667	536	80	31 - 110	
N-Nitrosodiphenylamine	1330	1000	75	46 - 110	
Naphthalene	667	527	79	36 - 110	
Nitrobenzene	667	560	84	32 - 110	
Pentachlorophenol	1330	755	57	10 - 110	
Phenanthrene	667	522	78	49 - 110	
Phenol	667	559	84	38 - 110	
Pyrene	667	549	82	49 - 110	
2,2'-oxybis[1-chloropropane]	667	491	74	29 - 110	
2,6-Dinitrotoluene	667	584	88	45 - 110	
4-Nitrophenol	1330	1140	86	28 - 110	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (Surr)	76	36 - 110
Phenol-d5 (Surr)	85	26 - 110
Nitrobenzene-d5 (Surr)	83	20 - 110
2-Fluorophenol (Surr)	83	24 - 110
2-Fluorobiphenyl (Surr)	82	24 - 110
2,4,6-Tribromophenol (Surr)	72	10 - 110

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175570

Method: 8015C
Preparation: 5030A

Lab Sample ID:	MB 240-175570/1-A	Analysis Batch:	240-175575	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-175570	Lab File ID:	Y0040825.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/09/2015 0156	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 1104			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline Range Organics [C6 - C10]	46	U	46	100

Surrogate	% Rec	Acceptance Limits
Trifluorotoluene (Surr)	81	40 - 139

Lab Control Sample - Batch: 240-175570

Method: 8015C
Preparation: 5030A

Lab Sample ID:	LCS 240-175570/2-A	Analysis Batch:	240-175575	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-175570	Lab File ID:	Y0040826.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/09/2015 0231	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 1104			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Gasoline Range Organics [C6 - C10]	800	769	96	74 - 120	

Surrogate	% Rec	Acceptance Limits
Trifluorotoluene (Surr)	100	40 - 139

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175570

Method: 8015C
Preparation: 5030A

MS Lab Sample ID:	180-42592-G-10-C MS	Analysis Batch:	240-175575	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-175570	Lab File ID:	Y0040828.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.05 g
Analysis Date:	04/09/2015 0340			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 1104			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	180-42592-G-10-D MSD	Analysis Batch:	240-175575	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-175570	Lab File ID:	Y0040829.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	04/09/2015 0414			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 1104			Injection Volume:	5 mL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Gasoline Range Organics [C6 - C10]	63	67	10 - 136	6	40		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Trifluorotoluene (Surr)	81	90	40 - 139

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175570

Method: 8015C
Preparation: 5030A

MS Lab Sample ID:	180-42592-G-10-C MS	Units:	ug/Kg	MSD Lab Sample ID:	180-42592-G-10-D MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/09/2015 0340			Analysis Date:	04/09/2015 0414
Prep Date:	04/08/2015 1104			Prep Date:	04/08/2015 1104
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Gasoline Range Organics [C6 - C10]	54	U	928	930	587	624

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175550

Method: 8015C
Preparation: 3540C

Lab Sample ID:	MB 240-175550/7-A	Analysis Batch:	240-175823	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-175550	Lab File ID:	P5F40916.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/09/2015 2223	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0935			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)	4.1	U	4.1	17

Surrogate	% Rec	Acceptance Limits
o-Terphenyl (Surr)	92	40 - 160

Lab Control Sample - Batch: 240-175550

Method: 8015C
Preparation: 3540C

Lab Sample ID:	LCS 240-175550/8-A	Analysis Batch:	240-175823	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-175550	Lab File ID:	P5F40917.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/09/2015 2253	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0935			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel	83.3	70.4	85	52 - 120	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl (Surr)	87	40 - 160

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175550

Method: 8015C
Preparation: 3540C

MS Lab Sample ID:	240-49010-1	Analysis Batch:	240-175823	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-175550	Lab File ID:	P5F40921.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.38 g
Analysis Date:	04/10/2015 0055			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0935			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	240-49010-1	Analysis Batch:	240-175823	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-175550	Lab File ID:	P5F40922.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.29 g
Analysis Date:	04/10/2015 0125			Final Weight/Volume:	5 mL
Prep Date:	04/08/2015 0935			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel	73	66	10 - 124	9	40		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl (Surr)	93	87	40 - 160

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175550

Method: 8015C
Preparation: 3540C

MS Lab Sample ID:	240-49010-1	Units:	mg/Kg	MSD Lab Sample ID:	240-49010-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/10/2015 0055			Analysis Date:	04/10/2015 0125
Prep Date:	04/08/2015 0935			Prep Date:	04/08/2015 0935
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Diesel	9.1	J	88.9	89.1	74.4	68.3

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175553

Method: 8082A
Preparation: 3540C

Lab Sample ID:	MB 240-175553/17-A	Analysis Batch:	240-175923	Instrument ID:	A2HP4
Client Matrix:	Solid	Prep Batch:	240-175553	Lab File ID:	P4000008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/10/2015 1219	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/08/2015 0949			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor-1016	12	U	12	33
Aroclor-1221	16	U	16	33
Aroclor-1232	20	U	20	33
Aroclor-1242	11	U	11	33
Aroclor-1248	8.0	U	8.0	33
Aroclor-1254	14	U	14	33
Aroclor-1260	9.0	U	9.0	33

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	61	29 - 151
DCB Decachlorobiphenyl	95	14 - 163

Lab Control Sample - Batch: 240-175553

Method: 8082A
Preparation: 3540C

Lab Sample ID:	LCS 240-175553/18-A	Analysis Batch:	240-175923	Instrument ID:	A2HP4
Client Matrix:	Solid	Prep Batch:	240-175553	Lab File ID:	P4000009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	04/10/2015 1235	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/08/2015 0949			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	333	252	76	62 - 120	
Aroclor-1260	333	311	93	56 - 122	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	64	29 - 151
DCB Decachlorobiphenyl	101	14 - 163

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175558 **Method: 6010C**
Preparation: 3050B

Lab Sample ID:	MB 240-175558/1-A	Analysis Batch:	240-175886	Instrument ID:	I12
Client Matrix:	Solid	Prep Batch:	240-175558	Lab File ID:	I12040915A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	04/09/2015 0956	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1026				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	0.063	U	0.063	1.0
Arsenic	0.41	U	0.41	1.5
Barium	0.41	U	0.41	20
Beryllium	0.026	U	0.026	0.50
Cadmium	0.021	U	0.021	0.50
Cobalt	0.047	U	0.047	1.0
Chromium	0.075	U	0.075	1.0
Molybdenum	0.059	U	0.059	4.0
Nickel	0.080	U	0.080	4.0
Lead	0.022	U	0.022	1.0
Selenium	0.34	U	0.34	2.0
Vanadium	0.20	U	0.20	1.0
Zinc	0.56	U	0.56	5.0
Antimony	0.48	U	0.48	2.0
Thallium	0.13	U	0.13	2.0

Method Blank - Batch: 240-175558 **Method: 6010C**
Preparation: 3050B

Lab Sample ID:	MB 240-175558/1-A	Analysis Batch:	240-175933	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-175558	Lab File ID:	I9041015A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	04/10/2015 1001	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1026				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Copper	0.23	U	0.23	2.5

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Control Sample - Batch: 240-175558

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 240-175558/2-A	Analysis Batch:	240-175886	Instrument ID:	I12
Client Matrix:	Solid	Prep Batch:	240-175558	Lab File ID:	I12040915A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	04/09/2015 1000	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1026				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	5.00	4.75	95	80 - 120	
Arsenic	200	198	99	80 - 120	
Barium	200	193	97	80 - 120	
Beryllium	5.00	4.68	94	80 - 120	
Cadmium	5.00	5.13	103	80 - 120	
Cobalt	50.0	47.7	95	80 - 120	
Chromium	20.0	19.2	96	80 - 120	
Molybdenum	100	99.9	100	80 - 120	
Nickel	50.0	48.9	98	80 - 120	
Lead	50.0	47.7	95	80 - 120	
Selenium	200	194	97	80 - 120	
Vanadium	50.0	49.1	98	80 - 120	
Zinc	50.0	48.9	98	80 - 120	
Antimony	50.0	50.8	102	80 - 120	
Thallium	200	190	95	80 - 120	

Lab Control Sample - Batch: 240-175558

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 240-175558/2-A	Analysis Batch:	240-175933	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-175558	Lab File ID:	I9041015A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	04/10/2015 1006	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1026				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Copper	25.0	24.5	98	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Method Blank - Batch: 240-175585

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 240-175585/1-A	Analysis Batch:	240-175776	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-175585	Lab File ID:	040915AHG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/09/2015 1003	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1500				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.014	U	0.014	0.10

Lab Control Sample - Batch: 240-175585

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 240-175585/2-A	Analysis Batch:	240-175776	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-175585	Lab File ID:	040915AHG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/09/2015 1008	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.833	0.790	95	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175585

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	240-49031-G-7-M MS	Analysis Batch:	240-175776	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-175585	Lab File ID:	040915AHG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.55 g
Analysis Date:	04/09/2015 1012			Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1500				
Leach Date:	N/A				

MSD Lab Sample ID:	240-49031-G-7-N MSD	Analysis Batch:	240-175776	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-175585	Lab File ID:	040915AHG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.55 g
Analysis Date:	04/09/2015 1014			Final Weight/Volume:	100 mL
Prep Date:	04/08/2015 1500				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	107	107	80 - 120	0	20		

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-175585

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	240-49031-G-7-M MS	Units:	mg/Kg	MSD Lab Sample ID:	240-49031-G-7-N MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/09/2015 1012			Analysis Date:	04/09/2015 1014
Prep Date:	04/08/2015 1500			Prep Date:	04/08/2015 1500
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.016	U	0.217	0.217	0.231	0.232

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Duplicate - Batch: 240-175452

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-49010-1	Analysis Batch:	240-175452	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/07/2015 1517	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	93	89	4	20	
Percent Moisture	7.4	11	41	20	F3

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery exceeds the control limits
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
Metals		
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	F3	Duplicate RPD exceeds the control limit

Client: Tetra Tech, Inc. Job Number: 240-49010-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-175483					
LCS 240-175483/6	Lab Control Sample	T	Solid	8260C	
MB 240-175483/8	Method Blank	T	Solid	8260C	
240-49010-1	FILL-001	T	Solid	8260C	240-175488
240-49010-1MS	Matrix Spike	T	Solid	8260C	240-175488
240-49010-1MSD	Matrix Spike Duplicate	T	Solid	8260C	240-175488
Prep Batch: 240-175488					
240-49010-1	FILL-001	T	Solid	5030C	
240-49010-1MS	Matrix Spike	T	Solid	5030C	
240-49010-1MSD	Matrix Spike Duplicate	T	Solid	5030C	
Analysis Batch:240-175730					
LCS 240-175730/4	Lab Control Sample	T	Water	8260B	
MB 240-175730/6	Method Blank	T	Water	8260B	
240-49010-2TB	TB-040615	T	Water	8260B	
240-49022-A-1 MS	Matrix Spike	T	Water	8260B	
240-49022-D-1 MSD	Matrix Spike Duplicate	T	Water	8260B	

Report Basis
T = Total

GC/MS Semi VOA

Prep Batch: 240-175545					
LCS 240-175545/19-A	Lab Control Sample	T	Solid	3540C	
MB 240-175545/18-A	Method Blank	T	Solid	3540C	
240-49010-1	FILL-001	T	Solid	3540C	
Analysis Batch:240-175891					
LCS 240-175545/19-A	Lab Control Sample	T	Solid	8270D	240-175545
MB 240-175545/18-A	Method Blank	T	Solid	8270D	240-175545
240-49010-1	FILL-001	T	Solid	8270D	240-175545

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-49010-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 240-175570					
LCS 240-175570/2-A	Lab Control Sample	T	Solid	5030A	
MB 240-175570/1-A	Method Blank	T	Solid	5030A	
180-42592-G-10-C MS	Matrix Spike	T	Solid	5030A	
180-42592-G-10-D MSD	Matrix Spike Duplicate	T	Solid	5030A	
240-49010-1	FILL-001	T	Solid	5030A	
Analysis Batch:240-175575					
LCS 240-175570/2-A	Lab Control Sample	T	Solid	8015C	240-175570
MB 240-175570/1-A	Method Blank	T	Solid	8015C	240-175570
180-42592-G-10-C MS	Matrix Spike	T	Solid	8015C	240-175570
180-42592-G-10-D MSD	Matrix Spike Duplicate	T	Solid	8015C	240-175570
240-49010-1	FILL-001	T	Solid	8015C	240-175570

Report Basis

T = Total

Client: Tetra Tech, Inc. Job Number: 240-49010-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 240-175550					
LCS 240-175550/8-A	Lab Control Sample	T	Solid	3540C	
MB 240-175550/7-A	Method Blank	T	Solid	3540C	
240-49010-1	FILL-001	T	Solid	3540C	
240-49010-1MS	Matrix Spike	T	Solid	3540C	
240-49010-1MSD	Matrix Spike Duplicate	T	Solid	3540C	
Prep Batch: 240-175553					
LCS 240-175553/18-A	Lab Control Sample	T	Solid	3540C	
MB 240-175553/17-A	Method Blank	T	Solid	3540C	
240-49010-1	FILL-001	T	Solid	3540C	
Analysis Batch:240-175823					
LCS 240-175550/8-A	Lab Control Sample	T	Solid	8015C	240-175550
MB 240-175550/7-A	Method Blank	T	Solid	8015C	240-175550
240-49010-1	FILL-001	T	Solid	8015C	240-175550
240-49010-1MS	Matrix Spike	T	Solid	8015C	240-175550
240-49010-1MSD	Matrix Spike Duplicate	T	Solid	8015C	240-175550
Analysis Batch:240-175923					
LCS 240-175553/18-A	Lab Control Sample	T	Solid	8082A	240-175553
MB 240-175553/17-A	Method Blank	T	Solid	8082A	240-175553
240-49010-1	FILL-001	T	Solid	8082A	240-175553

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-49010-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-175558					
LCS 240-175558/2-A	Lab Control Sample	T	Solid	3050B	
MB 240-175558/1-A	Method Blank	T	Solid	3050B	
240-49010-1	FILL-001	T	Solid	3050B	
Prep Batch: 240-175585					
LCS 240-175585/2-A	Lab Control Sample	T	Solid	7471A	
MB 240-175585/1-A	Method Blank	T	Solid	7471A	
240-49010-1	FILL-001	T	Solid	7471A	
240-49031-G-7-M MS	Matrix Spike	T	Solid	7471A	
240-49031-G-7-N MSD	Matrix Spike Duplicate	T	Solid	7471A	
Analysis Batch:240-175776					
LCS 240-175585/2-A	Lab Control Sample	T	Solid	7471A	240-175585
MB 240-175585/1-A	Method Blank	T	Solid	7471A	240-175585
240-49010-1	FILL-001	T	Solid	7471A	240-175585
240-49031-G-7-M MS	Matrix Spike	T	Solid	7471A	240-175585
240-49031-G-7-N MSD	Matrix Spike Duplicate	T	Solid	7471A	240-175585
Analysis Batch:240-175886					
LCS 240-175558/2-A	Lab Control Sample	T	Solid	6010C	240-175558
MB 240-175558/1-A	Method Blank	T	Solid	6010C	240-175558
240-49010-1	FILL-001	T	Solid	6010C	240-175558
Analysis Batch:240-175933					
LCS 240-175558/2-A	Lab Control Sample	T	Solid	6010C	240-175558
MB 240-175558/1-A	Method Blank	T	Solid	6010C	240-175558
240-49010-1	FILL-001	T	Solid	6010C	240-175558

Report Basis
T = Total

General Chemistry

Analysis Batch:240-175452					
240-49010-1	FILL-001	T	Solid	Moisture	
240-49010-1DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Laboratory Chronicle

Lab ID: 240-49010-1 **Client ID:** FILL-001

Sample Date/Time: 04/06/2015 15:00 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-49010-B-1-A		240-175483	240-175488	04/08/2015 05:23	1	TAL CAN	TJL2
A:8260C	240-49010-B-1-A		240-175483	240-175488	04/08/2015 11:06	1	TAL CAN	SAM
P:3540C	240-49010-E-1-A		240-175891	240-175545	04/08/2015 09:16	1	TAL CAN	SDE
A:8270D	240-49010-E-1-A		240-175891	240-175545	04/10/2015 16:57	1	TAL CAN	MRU
P:5030A	240-49010-C-1-A		240-175575	240-175570	04/08/2015 11:04	1	TAL CAN	RTR
A:8015C	240-49010-C-1-A		240-175575	240-175570	04/09/2015 06:34	1	TAL CAN	RTR
P:3540C	240-49010-E-1-B		240-175823	240-175550	04/08/2015 09:35	1	TAL CAN	SDE
A:8015C	240-49010-E-1-B		240-175823	240-175550	04/10/2015 00:24	1	TAL CAN	DEB
P:3540C	240-49010-E-1-E		240-175923	240-175553	04/08/2015 09:49	1	TAL CAN	SDE
A:8082A	240-49010-E-1-E		240-175923	240-175553	04/10/2015 15:27	1	TAL CAN	HMB
P:3050B	240-49010-E-1-F		240-175886	240-175558	04/08/2015 10:26	1	TAL CAN	DEE
A:6010C	240-49010-E-1-F		240-175886	240-175558	04/09/2015 10:04	1	TAL CAN	ADS
P:3050B	240-49010-E-1-F		240-175933	240-175558	04/08/2015 10:26	1	TAL CAN	DEE
A:6010C	240-49010-E-1-F		240-175933	240-175558	04/10/2015 10:09	1	TAL CAN	KLC
P:7471A	240-49010-E-1-G		240-175776	240-175585	04/08/2015 15:00	1	TAL CAN	DEE
A:7471A	240-49010-E-1-G		240-175776	240-175585	04/09/2015 10:46	1	TAL CAN	BW
A:Moisture	240-49010-A-1		240-175452		04/07/2015 15:17	1	TAL CAN	SEM

Lab ID: 240-49010-1 MS **Client ID:** FILL-001

Sample Date/Time: 04/06/2015 15:00 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-49010-B-1-B MS		240-175483	240-175488	04/08/2015 05:23	1	TAL CAN	TJL2
A:8260C	240-49010-B-1-B MS		240-175483	240-175488	04/08/2015 11:27	1	TAL CAN	SAM
P:3540C	240-49010-E-1-C MS		240-175823	240-175550	04/08/2015 09:35	1	TAL CAN	SDE
A:8015C	240-49010-E-1-C MS		240-175823	240-175550	04/10/2015 00:55	1	TAL CAN	DEB

Lab ID: 240-49010-1 MSD **Client ID:** FILL-001

Sample Date/Time: 04/06/2015 15:00 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-49010-B-1-C MSD		240-175483	240-175488	04/08/2015 05:23	1	TAL CAN	TJL2
A:8260C	240-49010-B-1-C MSD		240-175483	240-175488	04/08/2015 11:48	1	TAL CAN	SAM
P:3540C	240-49010-E-1-D MSD		240-175823	240-175550	04/08/2015 09:35	1	TAL CAN	SDE
A:8015C	240-49010-E-1-D MSD		240-175823	240-175550	04/10/2015 01:25	1	TAL CAN	DEB

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Laboratory Chronicle

Lab ID: 240-49010-1 DU **Client ID:** FILL-001

Sample Date/Time: 04/06/2015 15:00 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	240-49010-A-1 DU		240-175452		04/07/2015 15:17	1	TAL CAN	SEM

Lab ID: 240-49010-2 **Client ID:** TB-040615

Sample Date/Time: 04/06/2015 00:00 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-49010-A-2		240-175730		04/09/2015 18:34	1	TAL CAN	RJQ
A:8260B	240-49010-A-2		240-175730		04/09/2015 18:34	1	TAL CAN	RJQ

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 240-175730/6		240-175730		04/09/2015 12:06	1	TAL CAN	RJQ
A:8260B	MB 240-175730/6		240-175730		04/09/2015 12:06	1	TAL CAN	RJQ
A:8260C	MB 240-175483/8		240-175483		04/08/2015 03:14	1	TAL CAN	SAM
P:3540C	MB 240-175545/18-A		240-175891	240-175545	04/08/2015 09:16	1	TAL CAN	SDE
A:8270D	MB 240-175545/18-A		240-175891	240-175545	04/10/2015 09:27	1	TAL CAN	MRU
P:5030A	MB 240-175570/1-A		240-175575	240-175570	04/08/2015 11:04	1	TAL CAN	RTR
A:8015C	MB 240-175570/1-A		240-175575	240-175570	04/09/2015 01:56	1	TAL CAN	RTR
P:3540C	MB 240-175550/7-A		240-175823	240-175550	04/08/2015 09:35	1	TAL CAN	SDE
A:8015C	MB 240-175550/7-A		240-175823	240-175550	04/09/2015 22:23	1	TAL CAN	DEB
P:3540C	MB 240-175553/17-A		240-175923	240-175553	04/08/2015 09:49	1	TAL CAN	SDE
A:8082A	MB 240-175553/17-A		240-175923	240-175553	04/10/2015 12:19	1	TAL CAN	HMB
P:3050B	MB 240-175558/1-A		240-175886	240-175558	04/08/2015 10:26	1	TAL CAN	DEE
A:6010C	MB 240-175558/1-A		240-175886	240-175558	04/09/2015 09:56	1	TAL CAN	ADS
P:3050B	MB 240-175558/1-A		240-175933	240-175558	04/08/2015 10:26	1	TAL CAN	DEE
A:6010C	MB 240-175558/1-A		240-175933	240-175558	04/10/2015 10:01	1	TAL CAN	KLC
P:7471A	MB 240-175585/1-A		240-175776	240-175585	04/08/2015 15:00	1	TAL CAN	DEE
A:7471A	MB 240-175585/1-A		240-175776	240-175585	04/09/2015 10:03	1	TAL CAN	BW

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 240-175730/4		240-175730		04/09/2015 11:20	1	TAL CAN	RJQ
A:8260B	LCS 240-175730/4		240-175730		04/09/2015 11:20	1	TAL CAN	RJQ
A:8260C	LCS 240-175483/6		240-175483		04/08/2015 02:31	1	TAL CAN	SAM
P:3540C	LCS 240-175545/19-A		240-175891	240-175545	04/08/2015 09:16	1	TAL CAN	SDE
A:8270D	LCS 240-175545/19-A		240-175891	240-175545	04/10/2015 09:52	1	TAL CAN	MRU
P:5030A	LCS 240-175570/2-A		240-175575	240-175570	04/08/2015 11:04	1	TAL CAN	RTR
A:8015C	LCS 240-175570/2-A		240-175575	240-175570	04/09/2015 02:31	1	TAL CAN	RTR
P:3540C	LCS 240-175550/8-A		240-175823	240-175550	04/08/2015 09:35	1	TAL CAN	SDE
A:8015C	LCS 240-175550/8-A		240-175823	240-175550	04/09/2015 22:53	1	TAL CAN	DEB
P:3540C	LCS 240-175553/18-A		240-175923	240-175553	04/08/2015 09:49	1	TAL CAN	SDE
A:8082A	LCS 240-175553/18-A		240-175923	240-175553	04/10/2015 12:35	1	TAL CAN	HMB
P:3050B	LCS 240-175558/2-A		240-175886	240-175558	04/08/2015 10:26	1	TAL CAN	DEE
A:6010C	LCS 240-175558/2-A		240-175886	240-175558	04/09/2015 10:00	1	TAL CAN	ADS
P:3050B	LCS 240-175558/2-A		240-175933	240-175558	04/08/2015 10:26	1	TAL CAN	DEE
A:6010C	LCS 240-175558/2-A		240-175933	240-175558	04/10/2015 10:06	1	TAL CAN	KLC
P:7471A	LCS 240-175585/2-A		240-175776	240-175585	04/08/2015 15:00	1	TAL CAN	DEE
A:7471A	LCS 240-175585/2-A		240-175776	240-175585	04/09/2015 10:08	1	TAL CAN	BW

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 04/06/2015 12:30 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-49022-A-1 MS		240-175730		04/09/2015 20:05	1	TAL CAN	RJQ
A:8260B	240-49022-A-1 MS		240-175730		04/09/2015 20:05	1	TAL CAN	RJQ
P:5030A	180-42592-G-10-C MS		240-175575	240-175570	04/08/2015 11:04	1	TAL CAN	RTR
A:8015C	180-42592-G-10-C MS		240-175575	240-175570	04/09/2015 03:40	1	TAL CAN	RTR
P:7471A	240-49031-G-7-M MS		240-175776	240-175585	04/08/2015 15:00	1	TAL CAN	DEE
A:7471A	240-49031-G-7-M MS		240-175776	240-175585	04/09/2015 10:12	1	TAL CAN	BW

Client: Tetra Tech, Inc. Job Number: 240-49010-1

Laboratory Chronicle

Lab ID: **MSD** **Client ID:** **N/A**

Sample Date/Time: 04/06/2015 12:30 Received Date/Time: 04/07/2015 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	240-49022-D-1 MSD		240-175730		04/09/2015 20:28	1	TAL CAN	RJQ
A:8260B	240-49022-D-1 MSD		240-175730		04/09/2015 20:28	1	TAL CAN	RJQ
P:5030A	180-42592-G-10-D MSD		240-175575	240-175570	04/08/2015 11:04	1	TAL CAN	RTR
A:8015C	180-42592-G-10-D MSD		240-175575	240-175570	04/09/2015 04:14	1	TAL CAN	RTR
P:7471A	240-49031-G-7-N MSD		240-175776	240-175585	04/08/2015 15:00	1	TAL CAN	DEE
A:7471A	240-49031-G-7-N MSD		240-175776	240-175585	04/09/2015 10:14	1	TAL CAN	BW

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EX10PPMSPK_00015	12/06/15	08/28/14	MEOH, Lot 0000085233	1000 mL	EXPCB1016_00005	2 mL	Aroclor-1016	10 ug/mL
					EXPCB1260_00006	2 mL	Aroclor-1260	10 ug/mL
.EXPCB1016_00005	12/06/15	AccuStandard, Inc., Lot B5120059			(Purchased Reagent)		Aroclor-1016	5000 ug/mL
.EXPCB1260_00006	01/25/23	AccuStandard, Lot B3060258-1A			(Purchased Reagent)		Aroclor-1260	5000 ug/mL
EX2/.2SURRW_00053	06/10/16	03/24/15	MEOH, Lot 0000085233	2000 mL	EXPESTSURR_00001	2 mL	DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.EXPESTSURR_00001	05/31/21	Restek, Lot A0108779			(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
EXBenzaldehyd_00019	05/28/15	03/23/15	MEOH, Lot 0000085233	200 mL	SMLIST1 S8_00002	4 mL	Benzaldehyde	40 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
.SMLIST1 S8_00002	05/28/15	Restek, Lot A0103145			(Purchased Reagent)		Benzaldehyde	2000 ug/mL
							Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
EXBNASPIKE_00038	07/30/15	03/25/15	MEOH, Lot 0000085233	200 mL	SMLIST1 S1_00004	4 mL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
					SMLIST1 S2_00008	4 mL	3,3'-Dichlorobenzidine	40 ug/mL
							Atrazine	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzidine	40 ug/mL
							Caprolactam	40 ug/mL
					SMLIST1 S7_00001	4 mL	N-Nitrosodiphenylamine	40 ug/mL
.SMLIST1 S1_00004	08/31/15		Restek, Lot A0101615		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.SMLIST1 S2_00008	07/30/15		Restek, Lot A0100824		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Atrazine	2000 ug/mL
							Benzidine	2000 ug/mL
							Caprolactam	2000 ug/mL
.SMLIST1 S7_00001	02/28/17		Restek, Lot A0101573		(Purchased Reagent)		N-Nitrosodiphenylamine	2000 ug/mL
EXBNASURR W_00021	06/10/16	03/16/15	MEOH, Lot 85233	2000 mL	SMLIST1 SURR_00003	8 mL	2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
EXDIESELSPKW_00062	02/06/16	03/10/15	MECL2, Lot 0000098052	100 mL	EXDIESELSPK_00012	5 mL	Diesel	2500 ug/mL
.EXDIESELSPK_00012	08/31/18		ULTRA, Lot CL-2929		(Purchased Reagent)		Diesel	50000 ug/mL
EXOTPSURRW_00001	06/10/16	03/27/15	MEOH, Lot 0000085233	1000 mL	EXSURROTP_00003	20 mL	o-Terphenyl (Surr)	200 ug/mL
.EXSURROTP_00003	03/31/18		Restek, Lot A0105442		(Purchased Reagent)		o-Terphenyl (Surr)	10000 ug/mL
Gas Surr Cali_00011	04/01/15	01/02/15	MeoH, Lot 1823933	10 mL	VGGASURROGATE_00028	1 mL	Trifluorotoluene (Surr)	5 ug/mL
.VGGASURROGATE_00028	03/02/15	12/02/14	MEOH, Lot 49909	50 mL	VGSURRSTKGAS_00019	1.25 mL	Trifluorotoluene (Surr)	50 ug/mL
..VGSURRSTKGAS_00019	08/31/16		ULTRA SCIENTIFIC, Lot CE-1903A		(Purchased Reagent)		Trifluorotoluene (Surr)	2000 ug/mL
MT1TO1HN03_00942	04/08/15	04/08/15	DIWATER, Lot DI WATER	500 mL	MTTMHNO3_00053	250 mL	Nitric acid	0.5 mL/mL
.MTTMHNO3_00053	03/24/17		Macron/Avantor, Lot 0000093717		(Purchased Reagent)		Nitric acid	100 %
MT6500ICV_00025	09/03/15	03/03/15	DIWATER, Lot DIWATER	1000 mL	MTTRICV3_00006	6 mL	Barium	1500 ug/L
							Beryllium	1500 ug/L
							Chromium	1500 ug/L
							Cobalt	1500 ug/L
							Copper	1500 ug/L
							Molybdenum	1500 ug/L
							Nickel	1500 ug/L
							Vanadium	1500 ug/L
							Zinc	1500 ug/L
					MTTRICV5_00012	1.5 mL	Antimony	375 ug/L
							Arsenic	375 ug/L
							Cadmium	375 ug/L
							Lead	375 ug/L
							Selenium	375 ug/L
							Thallium	750 ug/L
					MTTRICVAG_00005	7.5 mL	Silver	750 ug/L
.MTTRICV3_00006	04/01/16		CPI, Lot 1071810		(Purchased Reagent)		Barium	250 mg/L
							Beryllium	250 mg/L
							Chromium	250 mg/L
							Cobalt	250 mg/L
							Copper	250 mg/L
							Molybdenum	250 mg/L
							Nickel	250 mg/L
							Vanadium	250 mg/L
							Zinc	250 mg/L
.MTTRICV5_00012	04/01/16		CPI, Lot 1071811		(Purchased Reagent)		Antimony	250 ug/mL
							Arsenic	250 ug/mL
							Cadmium	250 ug/mL
							Lead	250 ug/mL
							Selenium	250 ug/mL
							Thallium	500 ug/mL
.MTTRICVAG_00005	10/01/15		CPI, Lot 1065516		(Purchased Reagent)		Silver	100 mg/L
MTAGSPIKEW_00047	09/17/15	03/17/14	DIWATER, Lot DIWATER	1000 mL	MTAG_00005	2.5 mL	Silver	2500 ug/L
					MTTMHNO3_00052	50 mL	Nitric acid	50000000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTAG_00005	12/27/15	HIGH PURITY STANDARDS, Lot 1401302			(Purchased Reagent)		Silver	1000 ug/mL
.MTTMHNO3_00052	03/02/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
MTAQUAREGIA_00987	04/08/15	04/08/15	NA, Lot NA	200 mL	MTTMHCL_00061	150 mL	Hydrogen Chloride	0.75 mL/mL
					MTTMHNO3_00053	50 mL	Nitric acid	0.25 mL/mL
.MTTMHCL_00061	03/24/17	Macron/Avantor, Lot 0000086340			(Purchased Reagent)		Hydrogen Chloride	100 %
.MTTMHNO3_00053	03/24/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
MTAQUAREGIA_00988	04/08/15	04/08/15	NA, Lot NA	80 mL	MTTMHCL_00061	60 mL	Hydrogen Chloride	0.75 mL/mL
					MTTMHNO3_00053	20 mL	Nitric acid	0.25 mL/mL
.MTTMHCL_00061	03/24/17	Macron/Avantor, Lot 0000086340			(Purchased Reagent)		Hydrogen Chloride	100 %
.MTTMHNO3_00053	03/24/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
MTH202_00041	05/13/16	Macron, Lot 0000079375			(Purchased Reagent)		Hydrogen Peroxide	30 %
MTHGCALW_00875	04/08/15	04/08/15	DIWATER, Lot DIWATER	100 mL	MTHGCAL_00016	1 mL	Mercury	100 ug/L
					MTTMHNO3_00053	0.15 mL	Nitric acid	1500000 ug/L
.MTHGCAL_00016	05/09/17	INORGANIC VENTURES, Lot H2-HG02126			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00053	03/24/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
MTHgStd_00011	07/31/15	Teledyne Leeman, Lot 1368801			(Purchased Reagent)		Mercury	1 ug/mL
MTICP1_00039	09/17/15	03/17/15	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00008	50 mL	Al	100000 ug/L
							Arsenic	100000 ug/L
							B	50000 ug/L
							Barium	100000 ug/L
							Beryllium	2500 ug/L
							Cadmium	2500 ug/L
							Chromium	10000 ug/L
							Cobalt	25000 ug/L
							Copper	12500 ug/L
							Fe	50000 ug/L
							Lead	25000 ug/L
							Mn	25000 ug/L
							Nickel	25000 ug/L
							Selenium	100000 ug/L
							Thallium	100000 ug/L
							Vanadium	25000 ug/L
							Zinc	25000 ug/L
					MTICPSPIKEB_00008	50 mL	Antimony	25000 ug/L
							Molybdenum	50000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00005	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00052	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00008	12/15/15	High Purity Standards, Lot 1434517			(Purchased Reagent)		Al	2000 ug/mL
							Arsenic	2000 ug/mL
							B	1000 ug/mL
							Barium	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Beryllium	50 ug/mL
							Cadmium	50 ug/mL
							Chromium	200 ug/mL
							Cobalt	500 ug/mL
							Copper	250 ug/mL
							Fe	1000 ug/mL
							Lead	500 ug/mL
							Mn	500 ug/mL
							Nickel	500 ug/mL
							Selenium	2000 ug/mL
							Thallium	2000 ug/mL
							Vanadium	500 ug/mL
							Zinc	500 ug/mL
.MTICPSPIKEB_00008	12/15/15	High Purity Standards, Lot 1434518			(Purchased Reagent)		Antimony	500 ug/mL
							Molybdenum	1000 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00005	12/15/15	High Purity Standards, Lot 1434513			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00052	03/02/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00048	06/29/15	02/18/14	DIWATER, Lot DIWATER	1000 mL	MTTMHNO3_00050	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00010	250 mL	Ca	2500 mg/L
							K	2500 mg/L
							Mg	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00050	01/16/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00010	11/19/15	HIGH PURITY STANDARDS, Lot 1424003			(Purchased Reagent)		Ca	10000 ug/mL
							K	10000 ug/mL
							Mg	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00045	10/02/15	04/02/15	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00008	200 mL	Arsenic	500 ug/L
							Barium	2000 ug/L
							Beryllium	2000 ug/L
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Cobalt	2000 ug/L
							Copper	2000 ug/L
							Lead	500 ug/L
							Nickel	2000 ug/L
							Selenium	500 ug/L
							Thallium	1000 ug/L
							Vanadium	2000 ug/L
							Zinc	2000 ug/L
					MTICPCCV2_00008	200 mL	Antimony	500 ug/L
							Molybdenum	2000 ug/L

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Silver	1000 ug/L
.MTICPCCV1_00008	04/01/16	INORGANIC VENTURES, Lot J2-MEB567093			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Beryllium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L
							Cobalt	20000 ug/L
							Copper	20000 ug/L
							Lead	5000 ug/L
							Nickel	20000 ug/L
							Selenium	5000 ug/L
							Thallium	10000 ug/L
							Vanadium	20000 ug/L
							Zinc	20000 ug/L
.MTICPCCV2_00008	04/01/16	INORGANIC VENTURES, Lot J2-MEB567104			(Purchased Reagent)		Antimony	5000 ug/L
							Molybdenum	20000 ug/L
							Silver	10000 ug/L
MTICPICSABW_00007	09/02/15	03/02/15	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00003	100 mL	Al	500000 ug/L
							Arsenic	1000 ug/L
							B	500 ug/L
							Barium	500 ug/L
							Beryllium	500 ug/L
							Ca	500000 ug/L
							Cadmium	1000 ug/L
							Chromium	500 ug/L
							Cobalt	500 ug/L
							Copper	500 ug/L
							Fe	200000 ug/L
							K	10000 ug/L
							Lead	1000 ug/L
							Li	500 ug/L
							Mg	500000 ug/L
							Mn	500 ug/L
							Na	10000 ug/L
							Nickel	1000 ug/L
							Selenium	1000 ug/L
							Sr	1500 ug/L
							Thallium	1000 ug/L
							Vanadium	500 ug/L
							Zinc	1000 ug/L
					MTICPICSAB2_00003	100 mL	Antimony	1000 ug/L
							Molybdenum	1000 ug/L
							Si	10000 ug/L
							Silver	1000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00003	10/01/15	INORGANIC VENTURES, Lot H2-MEB546050			(Purchased Reagent)		Al	5000000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Arsenic	10000 ug/L
							B	5000 ug/L
							Barium	5000 ug/L
							Beryllium	5000 ug/L
							Ca	5000000 ug/L
							Cadmium	10000 ug/L
							Chromium	5000 ug/L
							Cobalt	5000 ug/L
							Copper	5000 ug/L
							Fe	2000000 ug/L
							K	100000 ug/L
							Lead	10000 ug/L
							Li	5000 ug/L
							Mg	5000000 ug/L
							Mn	5000 ug/L
							Na	100000 ug/L
							Nickel	10000 ug/L
							Selenium	10000 ug/L
							Sr	15000 ug/L
							Thallium	10000 ug/L
							Vanadium	5000 ug/L
							Zinc	10000 ug/L
.MTICPICSAB2_00003	10/01/15	INORGANIC VENTURES, Lot H2-MEB546051			(Purchased Reagent)		Antimony	10000 ug/L
							Molybdenum	10000 ug/L
							Si	100000 ug/L
							Silver	10000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L
MTKMN04W_00080	03/21/17	03/21/15	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00020	125 g	Potassium Permanganate	0.05 g/g
.MTKMN04_00020	11/24/19	Fisher, Lot 121666			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTTMHCL_00061	03/24/17	Macron/Avantor, Lot 0000086340			(Purchased Reagent)		Hydrogen Chloride	100 %
MTTMHNO3_00053	03/24/17	Macron/Avantor, Lot 0000093717			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00026	09/20/15	03/20/15	DIWATER, Lot DIWATER	500 mL	MTTRCRI6010C_00010	25 mL	Antimony	20 ug/L
							Arsenic	15 ug/L
							Barium	200 ug/L
							Beryllium	5 ug/L
							Cadmium	5 ug/L
							Chromium	10 ug/L
							Cobalt	10 ug/L
							Copper	20 ug/L
							Lead	10 ug/L
							Molybdenum	40 ug/L
							Nickel	40 ug/L
							Selenium	20 ug/L
							Silver	10 ug/L
							Thallium	20 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vanadium	10 ug/L
							Zinc	50 ug/L
.MTTRCRI6010C_00010	12/01/15	Inorganic Ventures, Lot H2-MEB552050			(Purchased Reagent)		Antimony	400 ug/L
							Arsenic	300 ug/L
							Barium	4000 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	200 ug/L
							Cobalt	200 ug/L
							Copper	400 ug/L
							Lead	200 ug/L
							Molybdenum	800 ug/L
							Nickel	800 ug/L
							Selenium	400 ug/L
							Silver	200 ug/L
							Thallium	400 ug/L
							Vanadium	200 ug/L
							Zinc	1000 ug/L
MTTRICSAW_00025	06/01/15	12/23/14	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00012	100 mL	Al	500000 ug/L
							Ca	500000 ug/L
							Fe	200000 ug/L
							Mg	500000 ug/L
.MTTRICSA_00012	06/01/15	INORGANIC VENTURES, Lot G2-MEB491156			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
SG1248@.05ppm_00015	09/09/15	03/10/15	HEXANE, Lot 0000086559	100 mL	SG1248@10ppm_00006	0.5 mL	PCB-1248 Peak 1	0.05 ug/mL
							PCB-1248 Peak 2	0.05 ug/mL
							PCB-1248 Peak 3	0.05 ug/mL
							PCB-1248 Peak 4	0.05 ug/mL
							PCB-1248 Peak 5	0.05 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18	Restek, Lot A086044			(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@0.1PPM_00012	09/09/15	03/10/15	HEXANE, Lot 0000086559	100 mL	SG1248@10ppm_00006	1 mL	PCB-1248 Peak 1	0.1 ug/mL
							PCB-1248 Peak 2	0.1 ug/mL
							PCB-1248 Peak 3	0.1 ug/mL
							PCB-1248 Peak 4	0.1 ug/mL
							PCB-1248 Peak 5	0.1 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@0.2ppm_00012	09/09/15	03/10/15	HEXANE, Lot 0000086559	100 mL	SG1248@10ppm_00006	2 mL	PCB-1248 Peak 1	0.2 ug/mL
							PCB-1248 Peak 2	0.2 ug/mL
							PCB-1248 Peak 3	0.2 ug/mL
							PCB-1248 Peak 4	0.2 ug/mL
							PCB-1248 Peak 5	0.2 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@0.5ppm_00015	06/01/15	12/01/14	HEXANE, Lot 00000078259	100 mL	SG1248@10ppm_00006	5 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@1.0ppm_00010	09/09/15	03/10/15	HEXANE, Lot 0000086559	100 mL	SG1248@10ppm_00006	10 mL	PCB-1248 Peak 1	1 ug/mL
							PCB-1248 Peak 2	1 ug/mL
							PCB-1248 Peak 3	1 ug/mL
							PCB-1248 Peak 4	1 ug/mL
							PCB-1248 Peak 5	1 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@2.0ppm_00010	09/09/15	03/10/15	HEXANE, Lot 0000086559	100 mL	SG1248@10ppm_00006	20 mL	PCB-1248 Peak 1	2 ug/mL
							PCB-1248 Peak 2	2 ug/mL
							PCB-1248 Peak 3	2 ug/mL
							PCB-1248 Peak 4	2 ug/mL
							PCB-1248 Peak 5	2 ug/mL
.SG1248@10ppm_00006	09/09/15	09/09/14	Hexane, Lot 0000078259	100 mL	SG1248_00003	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00003	04/30/18		Restek, Lot A086044		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1660@.05PPM_00012	07/01/15	01/08/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260_00012	0.5 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
					SGPCGSURRSTK_00005	0.125 mL	DCB Decachlorobiphenyl	0.0025 ug/mL
							Tetrachloro-m-xylene	0.0025 ug/mL
.SG1016/1260_00012	08/25/15	08/25/14	HEXANE, Lot 0000075731	100 mL	SG1016/1260MX_00006	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.2ppm_00011	07/31/15	02/23/15	HEXANE, Lot 86559	100 mL	SG1016/1260_00013	2 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
					SGPCGSURRSTK_00005	0.5 mL	DCB Decachlorobiphenyl	0.01 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SG1016/1260_00013	01/12/16	01/12/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260MX_00006	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG1660@0.5PPM_00042	07/31/15	02/04/15	HEXANE, Lot 0000086560	200 mL	SG1016/1260_00013	10 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCGSURRSTK_00005	2.5 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00013	01/12/16	01/12/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260MX_00006	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00044	07/31/15	03/17/15	HEXANE, Lot 0000086559	200 mL	SG1016/1260_00013	10 mL	Aroclor-1016	0.5 ug/mL
							Aroclor-1260	0.5 ug/mL
							PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCGSURRSTK_00005	2.5 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00013	01/12/16	01/12/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260MX_00006	1 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
							PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
							PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@1.0PPM_00011	07/31/15	02/23/15	HEXANE, Lot 86559	100 mL	SG1016/1260_00013	10 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
					SGPCGSURRSTK_00005	2.5 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1016/1260_00013	01/12/16	01/12/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260MX_00006	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@2.0PPM_00012	07/31/15	02/23/15	HEXANE, Lot 86559	100 mL	SG1016/1260_00013	20 mL	PCB-1016 Peak 1	2 ug/mL
							PCB-1016 Peak 2	2 ug/mL
							PCB-1016 Peak 3	2 ug/mL
							PCB-1016 Peak 4	2 ug/mL
							PCB-1016 Peak 5	2 ug/mL
							PCB-1260 Peak 1	2 ug/mL
							PCB-1260 Peak 2	2 ug/mL
							PCB-1260 Peak 3	2 ug/mL
							PCB-1260 Peak 4	2 ug/mL
							PCB-1260 Peak 5	2 ug/mL
					SGPCGSURRSTK_00005	5 mL	DCB Decachlorobiphenyl	0.1 ug/mL
							Tetrachloro-m-xylene	0.1 ug/mL
.SG1016/1260_00013	01/12/16	01/12/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260MX_00006	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660ICV@1.0_00004	07/05/15	01/05/15	HEXANE, Lot 0000086560	10 mL	SG1660ICV@10_00004	1 mL	Aroclor-1016	1 ug/mL
							Aroclor-1260	1 ug/mL
.SG1660ICV@10_00004	07/05/15	01/05/15	HEXANE, Lot 0000086560	10 mL	SG1660ICV@100_00002	1 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
..SG1660ICV@100_00002	08/22/15	08/22/14	HEXANE, Lot 0000075731	10 mL	SG 1660 ICV_00010	1 mL	Aroclor-1016	100 ug/mL
							Aroclor-1260	100 ug/mL
...SG 1660 ICV_00010	06/30/19		restek, Lot a094336		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
SG1660STD@0.1_00012	07/31/15	02/23/15	HEXANE, Lot 86559	100 mL	SG1016/1260_00013	1 mL	PCB-1016 Peak 1	0.1 ug/mL
							PCB-1016 Peak 2	0.1 ug/mL
							PCB-1016 Peak 3	0.1 ug/mL
							PCB-1016 Peak 4	0.1 ug/mL
							PCB-1016 Peak 5	0.1 ug/mL
							PCB-1260 Peak 1	0.1 ug/mL
							PCB-1260 Peak 2	0.1 ug/mL
							PCB-1260 Peak 3	0.1 ug/mL
							PCB-1260 Peak 4	0.1 ug/mL
							PCB-1260 Peak 5	0.1 ug/mL
					SGPCGSURRSTK_00005	0.25 mL	DCB Decachlorobiphenyl	0.005 ug/mL
							Tetrachloro-m-xylene	0.005 ug/mL
.SG1016/1260_00013	01/12/16	01/12/15	HEXANE, Lot 0000086560	100 mL	SG1016/1260MX_00006	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00006	04/30/19		Restek, Lot a092844		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCGSURRSTK_00005	07/31/15	07/31/14	HEXANE, Lot 0000075731	100 mL	SGPCBSURRMX_00007	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPCBSURRMX_00007	03/31/19		restek, Lot a092533		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG2154@0.05PP_00008	05/22/15	12/22/14	HEXANE, Lot 000078259	100 mL	SG2154@10ppm_00008	0.5 mL	PCB-1221 Peak 1	0.05 ug/mL
							PCB-1221 Peak 2	0.05 ug/mL
							PCB-1221 Peak 3	0.05 ug/mL
							PCB-1254 Peak 1	0.05 ug/mL
							PCB-1254 Peak 2	0.05 ug/mL
							PCB-1254 Peak 3	0.05 ug/mL
							PCB-1254 Peak 4	0.05 ug/mL
							PCB-1254 Peak 5	0.05 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
SG2154@0.2PPM_00009	05/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SG2154@10ppm_00008	2 mL	PCB-1221 Peak 1	0.2 ug/mL
							PCB-1221 Peak 2	0.2 ug/mL
							PCB-1221 Peak 3	0.2 ug/mL
							PCB-1254 Peak 1	0.2 ug/mL
							PCB-1254 Peak 2	0.2 ug/mL
							PCB-1254 Peak 3	0.2 ug/mL
							PCB-1254 Peak 4	0.2 ug/mL
							PCB-1254 Peak 5	0.2 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
SG2154@0.5PPM_00016	05/22/15	12/22/14	HEXANE, Lot 00000078259	100 mL	SG2154@10ppm_00008	5 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
							PCB-1254 Peak 1	0.5 ug/mL
							PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
SG2154@1.0PPM_00010	05/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SG2154@10ppm_00008	10 mL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
							PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
SG2154@2.0PPM_00009	05/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SG2154@10ppm_00008	20 mL	PCB-1221 Peak 1	2 ug/mL
							PCB-1221 Peak 2	2 ug/mL
							PCB-1221 Peak 3	2 ug/mL
							PCB-1254 Peak 1	2 ug/mL
							PCB-1254 Peak 2	2 ug/mL
							PCB-1254 Peak 3	2 ug/mL
							PCB-1254 Peak 4	2 ug/mL
							PCB-1254 Peak 5	2 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
SG2154@O.1PPM_00010	05/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SG2154@10ppm_00008	1 mL	PCB-1221 Peak 1	0.1 ug/mL
							PCB-1221 Peak 2	0.1 ug/mL
							PCB-1221 Peak 3	0.1 ug/mL
							PCB-1254 Peak 1	0.1 ug/mL
							PCB-1254 Peak 2	0.1 ug/mL
							PCB-1254 Peak 3	0.1 ug/mL
							PCB-1254 Peak 4	0.1 ug/mL
							PCB-1254 Peak 5	0.1 ug/mL
.SG2154@10ppm_00008	12/22/15	12/22/14	HEXANE, Lot 0000078259	100 mL	SGPCB1221_00004	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
					SGPCB1254_00007	1 mL	PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 5	10 ug/mL
..SGPCB1221_00004	12/31/18		RESTEK, Lot a090667		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
..SGPCB1254_00007	05/30/18		restek, Lot A093609		(Purchased Reagent)		PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
SG3262@.05PPM_00002	05/30/15	12/31/14	HEXANE, Lot 0000078259	100 mL	SG32/6210PPM_00001	0.5 mL	PCB-1232 Peak 1	50 ug/L
							PCB-1232 Peak 2	50 ug/L
							PCB-1232 Peak 3	50 ug/L
							PCB-1232 Peak 4	50 ug/L
							PCB-1232 Peak 5	50 ug/L
							PCB-1262 Peak 1	50 ug/L
							PCB-1262 Peak 2	50 ug/L
							PCB-1262 Peak 3	50 ug/L
							PCB-1262 Peak 4	50 ug/L
							PCB-1262 Peak 5	50 ug/L
.SG32/6210PPM_00001	07/11/15	07/11/14	HEXANE, Lot 1561873	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00004	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00004	03/31/19		restek, Lot A092660		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
SG3262@.2PPM_00002	05/30/15	12/31/14	HEXANE, Lot 0000078259	100 mL	SG32/6210PPM_00001	2 mL	PCB-1232 Peak 1	200 ug/L
							PCB-1232 Peak 2	200 ug/L
							PCB-1232 Peak 3	200 ug/L
							PCB-1232 Peak 4	200 ug/L
							PCB-1232 Peak 5	200 ug/L
							PCB-1262 Peak 1	200 ug/L
							PCB-1262 Peak 2	200 ug/L
							PCB-1262 Peak 3	200 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 4	200 ug/L
							PCB-1262 Peak 5	200 ug/L
.SG32/6210PPM_00001	07/11/15	07/11/14	HEXANE, Lot 1561873	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00004	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00004	03/31/19		restek, Lot A092660		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
SG3262@0.1PPM_00002	05/30/15	12/31/14	HEXANE, Lot 0000078259	100 mL	SG32/6210PPM_00001	1 mL	PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
							PCB-1262 Peak 1	100 ug/L
							PCB-1262 Peak 2	100 ug/L
							PCB-1262 Peak 3	100 ug/L
							PCB-1262 Peak 4	100 ug/L
							PCB-1262 Peak 5	100 ug/L
.SG32/6210PPM_00001	07/11/15	07/11/14	HEXANE, Lot 1561873	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00004	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SGPCB1262STD_00004	03/31/19		restek, Lot A092660		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
SG3262@0.5PPM_00004	05/30/15	12/31/14	HEXANE, Lot 0000078259	100 mL	SG32/6210PPM_00001	5 mL	PCB-1232 Peak 1	500 ug/L
							PCB-1232 Peak 2	500 ug/L
							PCB-1232 Peak 3	500 ug/L
							PCB-1232 Peak 4	500 ug/L
							PCB-1232 Peak 5	500 ug/L
							PCB-1262 Peak 1	500 ug/L
							PCB-1262 Peak 2	500 ug/L
							PCB-1262 Peak 3	500 ug/L
							PCB-1262 Peak 4	500 ug/L
							PCB-1262 Peak 5	500 ug/L
.SG32/6210PPM_00001	07/11/15	07/11/14	HEXANE, Lot 1561873	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00004	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00004	03/31/19		restek, Lot A092660		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
SG3262@1.0PPM_00002	05/30/15	12/31/14	HEXANE, Lot 0000078259	100 mL	SG32/6210PPM_00001	10 mL	PCB-1232 Peak 1	1000 ug/L
							PCB-1232 Peak 2	1000 ug/L
							PCB-1232 Peak 3	1000 ug/L
							PCB-1232 Peak 4	1000 ug/L
							PCB-1232 Peak 5	1000 ug/L
							PCB-1262 Peak 1	1000 ug/L
							PCB-1262 Peak 2	1000 ug/L
							PCB-1262 Peak 3	1000 ug/L
							PCB-1262 Peak 4	1000 ug/L
							PCB-1262 Peak 5	1000 ug/L
.SG32/6210PPM_00001	07/11/15	07/11/14	HEXANE, Lot 1561873	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00004	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00004	03/31/19		restek, Lot A092660		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
SG3262@2.0ppm_00002	05/30/15	12/31/14	HEXANE, Lot 0000078259	100 mL	SG32/6210PPM_00001	20 mL	PCB-1232 Peak 1	2000 ug/L
							PCB-1232 Peak 2	2000 ug/L
							PCB-1232 Peak 3	2000 ug/L
							PCB-1232 Peak 4	2000 ug/L
							PCB-1232 Peak 5	2000 ug/L
							PCB-1262 Peak 1	2000 ug/L
							PCB-1262 Peak 2	2000 ug/L
							PCB-1262 Peak 3	2000 ug/L
							PCB-1262 Peak 4	2000 ug/L
							PCB-1262 Peak 5	2000 ug/L
.SG32/6210PPM_00001	07/11/15	07/11/14	HEXANE, Lot 1561873	100 mL	SGPCB1232STD_00005	1 mL	PCB-1232 Peak 1	10000 ug/L
							PCB-1232 Peak 2	10000 ug/L
							PCB-1232 Peak 3	10000 ug/L
							PCB-1232 Peak 4	10000 ug/L
							PCB-1232 Peak 5	10000 ug/L
					SGPCB1262STD_00004	1 mL	PCB-1262 Peak 1	10000 ug/L
							PCB-1262 Peak 2	10000 ug/L
							PCB-1262 Peak 3	10000 ug/L
							PCB-1262 Peak 4	10000 ug/L
							PCB-1262 Peak 5	10000 ug/L
..SGPCB1232STD_00005	04/30/18		restek, Lot A086119		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
..SGPCB1262STD_00004	03/31/19		restek, Lot A092660		(Purchased Reagent)		PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 5	1000 ug/mL
SG42/68@1.0PP_00003	07/02/15	01/02/15	HEXANE, Lot 0000078259	100 mL	SG42/6810PPM_00001	10 mL	PCB-1242 Peak 1	1000 ug/L
							PCB-1242 Peak 2	1000 ug/L
							PCB-1242 Peak 3	1000 ug/L
							PCB-1242 Peak 4	1000 ug/L
							PCB-1242 Peak 5	1000 ug/L
							PCB-1268 Peak 1	1000 ug/L
							PCB-1268 Peak 2	1000 ug/L
							PCB-1268 Peak 3	1000 ug/L
							PCB-1268 Peak 4	1000 ug/L
							PCB-1268 Peak 5	1000 ug/L
.SG42/6810PPM_00001	07/11/15	07/11/14	HEXANE, Lot 0000075731	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00005	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00005	01/31/19		Restek, Lot a091468		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SG4268@.05PPM_00003	07/02/15	01/02/15	HEXANE, Lot 0000078259	100 mL	SG42/6810PPM_00001	0.5 mL	PCB-1242 Peak 1	50 ug/L
							PCB-1242 Peak 2	50 ug/L
							PCB-1242 Peak 3	50 ug/L
							PCB-1242 Peak 4	50 ug/L
							PCB-1242 Peak 5	50 ug/L
							PCB-1268 Peak 1	50 ug/L
							PCB-1268 Peak 2	50 ug/L
							PCB-1268 Peak 3	50 ug/L
							PCB-1268 Peak 4	50 ug/L
							PCB-1268 Peak 5	50 ug/L
.SG42/6810PPM_00001	07/11/15	07/11/14	HEXANE, Lot 0000075731	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00005	1 mL	PCB-1268 Peak 1	10000 ug/L

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00005	01/31/19		Restek, Lot a091468		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SG4268@.1PPM_00003	07/02/15	01/02/15	HEXANE, Lot 0000078259	100 mL	SG42/6810PPM_00001	1 mL	PCB-1242 Peak 1	100 ug/L
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
.SG42/6810PPM_00001	07/11/15	07/11/14	HEXANE, Lot 0000075731	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00005	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00005	01/31/19		Restek, Lot a091468		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SG4268@.2PPM_00002	07/02/15	01/02/15	HEXANE, Lot 0000078259	100 mL	SG42/6810PPM_00001	2 mL	PCB-1242 Peak 1	200 ug/L
							PCB-1242 Peak 2	200 ug/L
							PCB-1242 Peak 3	200 ug/L

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 4	200 ug/L
							PCB-1242 Peak 5	200 ug/L
							PCB-1268 Peak 1	200 ug/L
							PCB-1268 Peak 2	200 ug/L
							PCB-1268 Peak 3	200 ug/L
							PCB-1268 Peak 4	200 ug/L
							PCB-1268 Peak 5	200 ug/L
.SG42/6810PPM_00001	07/11/15	07/11/14	HEXANE, Lot 0000075731	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00005	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00005	01/31/19		Restek, Lot a091468		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SG4268@0.5PPM_00003	06/11/15	12/11/14	HEXANE, Lot 0000078259	100 mL	SG42/6810PPM_00001	5 mL	PCB-1242 Peak 1	500 ug/L
							PCB-1242 Peak 2	500 ug/L
							PCB-1242 Peak 3	500 ug/L
							PCB-1242 Peak 4	500 ug/L
							PCB-1242 Peak 5	500 ug/L
							PCB-1268 Peak 1	500 ug/L
							PCB-1268 Peak 2	500 ug/L
							PCB-1268 Peak 3	500 ug/L
							PCB-1268 Peak 4	500 ug/L
							PCB-1268 Peak 5	500 ug/L
.SG42/6810PPM_00001	07/11/15	07/11/14	HEXANE, Lot 0000075731	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00005	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00005	01/31/19		Restek, Lot a091468		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SG4268@2.0PPM_00002	07/02/15	01/02/15	HEXANE, Lot 0000078259	100 mL	SG42/6810PPM_00001	20 mL	PCB-1242 Peak 1	2000 ug/L
							PCB-1242 Peak 2	2000 ug/L
							PCB-1242 Peak 3	2000 ug/L
							PCB-1242 Peak 4	2000 ug/L
							PCB-1242 Peak 5	2000 ug/L
							PCB-1268 Peak 1	2000 ug/L
							PCB-1268 Peak 2	2000 ug/L
							PCB-1268 Peak 3	2000 ug/L
							PCB-1268 Peak 4	2000 ug/L
							PCB-1268 Peak 5	2000 ug/L
.SG42/6810PPM_00001	07/11/15	07/11/14	HEXANE, Lot 0000075731	100 mL	SG1242_00005	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
					SGpcb1268std_00005	1 mL	PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG1242_00005	11/30/18		Restek, Lot A090182		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
..SGpcb1268std_00005	01/31/19		Restek, Lot a091468		(Purchased Reagent)		PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
SGDROCAL_00017	08/20/15	02/20/15	MECL2, Lot 0000096628	25 mL	SGDROCALSTK_00014	5 mL	Diesel	10002.5 ug/mL
					SGDROSURROTP_00018	1 mL	o-Terphenyl (Surr)	800 ug/mL
					SGDROSURROTP_00019	1 mL	o-Terphenyl (Surr)	800 ug/mL
.SGDROCALSTK_00014	05/31/21		Restek, Lot A0102433		(Purchased Reagent)		Diesel	50012.4 ug/mL
.SGDROSURROTP_00018	02/28/18		Restek, Lot A0104523		(Purchased Reagent)		o-Terphenyl (Surr)	10000 ug/mL
.SGDROSURROTP_00019	02/28/18		Restek, Lot A0104523		(Purchased Reagent)		o-Terphenyl (Surr)	10000 ug/mL
SGDROICV_00013	02/20/16	02/20/15	MECL2, Lot 0000096628	25 mL	SGDROICVSTK_00005	1 mL	Diesel	2004 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SGDROICVSTK_00005	02/28/15	Ultra, Lot CH-0185			(Purchased Reagent)		Diesel	50100 ug/mL
SMLIST1 L1 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1PAH ST_00004	2 uL	1,1'-Biphenyl	0.1 ug/mL
							1-Methylnaphthalene	0.1 ug/mL
							2-Chloronaphthalene	0.1 ug/mL
							2-Methylnaphthalene	0.1 ug/mL
							Acenaphthene	0.1 ug/mL
							Acenaphthylene	0.1 ug/mL
							Anthracene	0.1 ug/mL
							Benzo[a]anthracene	0.1 ug/mL
							Benzo[a]pyrene	0.1 ug/mL
							Benzo[b]fluoranthene	0.1 ug/mL
							Benzo[g,h,i]perylene	0.1 ug/mL
							Benzo[k]fluoranthene	0.1 ug/mL
							Chrysene	0.1 ug/mL
							Dibenz(a,h)anthracene	0.1 ug/mL
							Dibenzofuran	0.1 ug/mL
							Fluoranthene	0.1 ug/mL
							Fluorene	0.1 ug/mL
							Hexachlorobenzene	0.1 ug/mL
							Indeno[1,2,3-cd]pyrene	0.1 ug/mL
							Naphthalene	0.1 ug/mL
							Phenanthrene	0.1 ug/mL
							Pyrene	0.1 ug/mL
							2-Fluorobiphenyl (Surr)	0.1 ug/mL
							Nitrobenzene-d5 (Surr)	0.1 ug/mL
							Terphenyl-d14 (Surr)	0.1 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1PAH ST_00004	05/31/16	01/26/15	MECL2, Lot 0000093871	3 mL	SMLIST1 PAH_00004	300 uL	1,1'-Biphenyl	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	100 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Chrysene	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Naphthalene	100 ug/mL
							Phenanthrene	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SURR_00003	60 uL	2-Fluorobiphenyl (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 PAH_00004	05/31/16	Restek, Lot A0107399			(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Chrysene	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Naphthalene	1000 ug/mL
							Phenanthrene	1000 ug/mL
							Pyrene	1000 ug/mL
..SMLIST1 SURR_00003	02/22/18	Restek, Lot A093638			(Purchased Reagent)		2-Fluorobiphenyl (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SMLIST1 L2 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	10 uL	1,1'-Biphenyl	0.5 ug/mL
							1,2,4,5-Tetrachlorobenzene	0.5 ug/mL
							1,2,4-Trichlorobenzene	0.5 ug/mL
							1,2-Dichlorobenzene	0.5 ug/mL
							1,2-Diphenylhydrazine	0.5 ug/mL
							1,3-Dichlorobenzene	0.5 ug/mL
							1,3-Dinitrobenzene	0.5 ug/mL
							1,4-Dichlorobenzene	0.5 ug/mL
							1,4-Dioxane	0.5 ug/mL
							1-Methylnaphthalene	0.5 ug/mL
							2,2'-oxybis[1-chloropropane]	0.5 ug/mL
							2,3,4,6-Tetrachlorophenol	0.5 ug/mL
							2,4,5-Trichlorophenol	0.5 ug/mL
							2,4,6-Trichlorophenol	0.5 ug/mL
							2,4-Dichlorophenol	0.5 ug/mL
							2,4-Dimethylphenol	0.5 ug/mL
							2,4-Dinitrophenol	1 ug/mL
							2,4-Dinitrotoluene	0.5 ug/mL
							2,6-Dichlorophenol	0.5 ug/mL
							2,6-Dinitrotoluene	0.5 ug/mL
							2-Chloronaphthalene	0.5 ug/mL
							2-Chlorophenol	0.5 ug/mL
							2-Methylnaphthalene	0.5 ug/mL
							2-Methylphenol	0.5 ug/mL
							2-Nitroaniline	0.5 ug/mL
							2-Nitrophenol	0.5 ug/mL
							3 & 4 Methylphenol	0.5 ug/mL
							3-Nitroaniline	0.5 ug/mL
							4,6-Dinitro-2-methylphenol	1 ug/mL
							4-Bromophenyl phenyl ether	0.5 ug/mL
							4-Chloro-3-methylphenol	0.5 ug/mL
							4-Chloroaniline	0.5 ug/mL
							4-Chlorophenyl phenyl ether	0.5 ug/mL
							4-Nitroaniline	0.5 ug/mL
							4-Nitrophenol	1 ug/mL
							Acenaphthene	0.5 ug/mL
							Acenaphthylene	0.5 ug/mL
							Acetophenone	0.5 ug/mL
							Aniline	0.5 ug/mL
							Anthracene	0.5 ug/mL
							Azobenzene	0.5 ug/mL
							Benzo[a]anthracene	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]pyrene	0.5 ug/mL
							Benzo[b]fluoranthene	0.5 ug/mL
							Benzo[g,h,i]perylene	0.5 ug/mL
							Benzo[k]fluoranthene	0.5 ug/mL
							Benzyl alcohol	0.5 ug/mL
							Bis(2-chloroethoxy)methane	0.5 ug/mL
							Bis(2-chloroethyl)ether	0.5 ug/mL
							Bis(2-ethylhexyl) phthalate	0.5 ug/mL
							Butyl benzyl phthalate	0.5 ug/mL
							Carbazole	0.5 ug/mL
							Chrysene	0.5 ug/mL
							Di-n-butyl phthalate	0.5 ug/mL
							Di-n-octyl phthalate	0.5 ug/mL
							Dibenz(a,h)anthracene	0.5 ug/mL
							Dibenzofuran	0.5 ug/mL
							Diethyl phthalate	0.5 ug/mL
							Dimethyl phthalate	0.5 ug/mL
							Fluoranthene	0.5 ug/mL
							Fluorene	0.5 ug/mL
							Hexachlorobenzene	0.5 ug/mL
							Hexachlorobutadiene	0.5 ug/mL
							Hexachlorocyclopentadiene	0.5 ug/mL
							Hexachloroethane	0.5 ug/mL
							Hexadecane	0.5 ug/mL
							Indeno[1,2,3-cd]pyrene	0.5 ug/mL
							Isophorone	0.5 ug/mL
							n-Decane	0.5 ug/mL
							N-Nitrosodi-n-propylamine	0.5 ug/mL
							N-Nitrosodimethylamine	0.5 ug/mL
							N-Nitrosodiphenylamine	1 ug/mL
							n-Octadecane	0.5 ug/mL
							Naphthalene	0.5 ug/mL
							Nitrobenzene	0.5 ug/mL
							Pentachlorophenol	1 ug/mL
							Phenanthrene	0.5 ug/mL
							Phenol	0.5 ug/mL
							Pyrene	0.5 ug/mL
							Pyridine	0.5 ug/mL
							Benzoic acid	1 ug/mL
							Indene	1 ug/mL
							Atrazine	1 ug/mL
							Benzaldehyde	1 ug/mL
							Caprolactam	1 ug/mL
							3,3'-Dichlorobenzidine	1 ug/mL
							Benzidine	1 ug/mL
							2,4,6-Tribromophenol (Surr)	0.5 ug/mL
							2-Fluorobiphenyl (Surr)	0.5 ug/mL
							2-Fluorophenol (Surr)	0.5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene-d5 (Surr)	0.5 ug/mL
							Phenol-d5 (Surr)	0.5 ug/mL
							Terphenyl-d14 (Surr)	0.5 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16	Restek, Lot A0108174			(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18	Restek, Lot A093638			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L3 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	20 uL	1,1'-Biphenyl	1 ug/mL
							1,2,4,5-Tetrachlorobenzene	1 ug/mL
							1,2,4-Trichlorobenzene	1 ug/mL
							1,2-Dichlorobenzene	1 ug/mL
							1,2-Diphenylhydrazine	1 ug/mL
							1,3-Dichlorobenzene	1 ug/mL
							1,3-Dinitrobenzene	1 ug/mL
							1,4-Dichlorobenzene	1 ug/mL
							1,4-Dioxane	1 ug/mL
							1-Methylnaphthalene	1 ug/mL
							2,2'-oxybis[1-chloropropane]	1 ug/mL
							2,3,4,6-Tetrachlorophenol	1 ug/mL
							2,4,5-Trichlorophenol	1 ug/mL
							2,4,6-Trichlorophenol	1 ug/mL
							2,4-Dichlorophenol	1 ug/mL
							2,4-Dimethylphenol	1 ug/mL
							2,4-Dinitrophenol	2 ug/mL
							2,4-Dinitrotoluene	1 ug/mL
							2,6-Dichlorophenol	1 ug/mL
							2,6-Dinitrotoluene	1 ug/mL
							2-Chloronaphthalene	1 ug/mL
							2-Chlorophenol	1 ug/mL
							2-Methylnaphthalene	1 ug/mL
							2-Methylphenol	1 ug/mL
							2-Nitroaniline	1 ug/mL
							2-Nitrophenol	1 ug/mL
							3 & 4 Methylphenol	1 ug/mL
							3-Nitroaniline	1 ug/mL
							4,6-Dinitro-2-methylphenol	2 ug/mL
							4-Bromophenyl phenyl ether	1 ug/mL
							4-Chloro-3-methylphenol	1 ug/mL
							4-Chloroaniline	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	1 ug/mL
							4-Nitroaniline	1 ug/mL
							4-Nitrophenol	2 ug/mL
							Acenaphthene	1 ug/mL
							Acenaphthylene	1 ug/mL
							Acetophenone	1 ug/mL
							Aniline	1 ug/mL
							Anthracene	1 ug/mL
							Azobenzene	1 ug/mL
							Benzo[a]anthracene	1 ug/mL
							Benzo[a]pyrene	1 ug/mL
							Benzo[b]fluoranthene	1 ug/mL
							Benzo[g,h,i]perylene	1 ug/mL
							Benzo[k]fluoranthene	1 ug/mL
							Benzyl alcohol	1 ug/mL
							Bis(2-chloroethoxy)methane	1 ug/mL
							Bis(2-chloroethyl)ether	1 ug/mL
							Bis(2-ethylhexyl) phthalate	1 ug/mL
							Butyl benzyl phthalate	1 ug/mL
							Carbazole	1 ug/mL
							Chrysene	1 ug/mL
							Di-n-butyl phthalate	1 ug/mL
							Di-n-octyl phthalate	1 ug/mL
							Dibenz(a,h)anthracene	1 ug/mL
							Dibenzofuran	1 ug/mL
							Diethyl phthalate	1 ug/mL
							Dimethyl phthalate	1 ug/mL
							Fluoranthene	1 ug/mL
							Fluorene	1 ug/mL
							Hexachlorobenzene	1 ug/mL
							Hexachlorobutadiene	1 ug/mL
							Hexachlorocyclopentadiene	1 ug/mL
							Hexachloroethane	1 ug/mL
							Hexadecane	1 ug/mL
							Indeno[1,2,3-cd]pyrene	1 ug/mL
							Isophorone	1 ug/mL
							n-Decane	1 ug/mL
							N-Nitrosodi-n-propylamine	1 ug/mL
							N-Nitrosodimethylamine	1 ug/mL
							N-Nitrosodiphenylamine	2 ug/mL
							n-Octadecane	1 ug/mL
							Naphthalene	1 ug/mL
							Nitrobenzene	1 ug/mL
							Pentachlorophenol	2 ug/mL
							Phenanthrene	1 ug/mL
							Phenol	1 ug/mL
							Pyrene	1 ug/mL
							Pyridine	1 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzoic acid	2 ug/mL
							Indene	2 ug/mL
							Atrazine	2 ug/mL
							Benzaldehyde	2 ug/mL
							Caprolactam	2 ug/mL
							3,3'-Dichlorobenzidine	2 ug/mL
							Benzidine	2 ug/mL
							2,4,6-Tribromophenol (Surr)	1 ug/mL
							2-Fluorobiphenyl (Surr)	1 ug/mL
							2-Fluorophenol (Surr)	1 ug/mL
							Nitrobenzene-d5 (Surr)	1 ug/mL
							Phenol-d5 (Surr)	1 ug/mL
							Terphenyl-d14 (Surr)	1 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L4 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	40 uL	1,1'-Biphenyl	2 ug/mL
							1,2,4,5-Tetrachlorobenzene	2 ug/mL
							1,2,4-Trichlorobenzene	2 ug/mL
							1,2-Dichlorobenzene	2 ug/mL
							1,2-Diphenylhydrazine	2 ug/mL
							1,3-Dichlorobenzene	2 ug/mL
							1,3-Dinitrobenzene	2 ug/mL
							1,4-Dichlorobenzene	2 ug/mL
							1,4-Dioxane	2 ug/mL
							1-Methylnaphthalene	2 ug/mL
							2,2'-oxybis[1-chloropropane]	2 ug/mL
							2,3,4,6-Tetrachlorophenol	2 ug/mL
							2,4,5-Trichlorophenol	2 ug/mL
							2,4,6-Trichlorophenol	2 ug/mL
							2,4-Dichlorophenol	2 ug/mL
							2,4-Dimethylphenol	2 ug/mL
							2,4-Dinitrophenol	4 ug/mL
							2,4-Dinitrotoluene	2 ug/mL
							2,6-Dichlorophenol	2 ug/mL
							2,6-Dinitrotoluene	2 ug/mL
							2-Chloronaphthalene	2 ug/mL
							2-Chlorophenol	2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylnaphthalene	2 ug/mL
							2-Methylphenol	2 ug/mL
							2-Nitroaniline	2 ug/mL
							2-Nitrophenol	2 ug/mL
							3 & 4 Methylphenol	2 ug/mL
							3-Nitroaniline	2 ug/mL
							4,6-Dinitro-2-methylphenol	4 ug/mL
							4-Bromophenyl phenyl ether	2 ug/mL
							4-Chloro-3-methylphenol	2 ug/mL
							4-Chloroaniline	2 ug/mL
							4-Chlorophenyl phenyl ether	2 ug/mL
							4-Nitroaniline	2 ug/mL
							4-Nitrophenol	4 ug/mL
							Acenaphthene	2 ug/mL
							Acenaphthylene	2 ug/mL
							Acetophenone	2 ug/mL
							Aniline	2 ug/mL
							Anthracene	2 ug/mL
							Azobenzene	2 ug/mL
							Benzo[a]anthracene	2 ug/mL
							Benzo[a]pyrene	2 ug/mL
							Benzo[b]fluoranthene	2 ug/mL
							Benzo[g,h,i]perylene	2 ug/mL
							Benzo[k]fluoranthene	2 ug/mL
							Benzyl alcohol	2 ug/mL
							Bis(2-chloroethoxy)methane	2 ug/mL
							Bis(2-chloroethyl)ether	2 ug/mL
							Bis(2-ethylhexyl) phthalate	2 ug/mL
							Butyl benzyl phthalate	2 ug/mL
							Carbazole	2 ug/mL
							Chrysene	2 ug/mL
							Di-n-butyl phthalate	2 ug/mL
							Di-n-octyl phthalate	2 ug/mL
							Dibenz(a,h)anthracene	2 ug/mL
							Dibenzofuran	2 ug/mL
							Diethyl phthalate	2 ug/mL
							Dimethyl phthalate	2 ug/mL
							Fluoranthene	2 ug/mL
							Fluorene	2 ug/mL
							Hexachlorobenzene	2 ug/mL
							Hexachlorobutadiene	2 ug/mL
							Hexachlorocyclopentadiene	2 ug/mL
							Hexachloroethane	2 ug/mL
							Hexadecane	2 ug/mL
							Indeno[1,2,3-cd]pyrene	2 ug/mL
							Isophorone	2 ug/mL
							n-Decane	2 ug/mL
							N-Nitrosodi-n-propylamine	2 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodimethylamine	2 ug/mL
							N-Nitrosodiphenylamine	4 ug/mL
							n-Octadecane	2 ug/mL
							Naphthalene	2 ug/mL
							Nitrobenzene	2 ug/mL
							Pentachlorophenol	4 ug/mL
							Phenanthrene	2 ug/mL
							Phenol	2 ug/mL
							Pyrene	2 ug/mL
							Pyridine	2 ug/mL
							Benzoic acid	4 ug/mL
							Indene	4 ug/mL
							Atrazine	4 ug/mL
							Benzaldehyde	4 ug/mL
							Caprolactam	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Benzidine	4 ug/mL
							2,4,6-Tribromophenol (Surr)	2 ug/mL
							2-Fluorobiphenyl (Surr)	2 ug/mL
							2-Fluorophenol (Surr)	2 ug/mL
							Nitrobenzene-d5 (Surr)	2 ug/mL
							Phenol-d5 (Surr)	2 ug/mL
							Terphenyl-d14 (Surr)	2 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L5 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	100 uL	1,1'-Biphenyl	5 ug/mL
							1,2,4,5-Tetrachlorobenzene	5 ug/mL
							1,2,4-Trichlorobenzene	5 ug/mL
							1,2-Dichlorobenzene	5 ug/mL
							1,2-Diphenylhydrazine	5 ug/mL
							1,3-Dichlorobenzene	5 ug/mL
							1,3-Dinitrobenzene	5 ug/mL
							1,4-Dichlorobenzene	5 ug/mL
							1,4-Dioxane	5 ug/mL
							1-Methylnaphthalene	5 ug/mL
							2,2'-oxybis[1-chloropropane]	5 ug/mL
							2,3,4,6-Tetrachlorophenol	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	5 ug/mL
							2,4,6-Trichlorophenol	5 ug/mL
							2,4-Dichlorophenol	5 ug/mL
							2,4-Dimethylphenol	5 ug/mL
							2,4-Dinitrophenol	10 ug/mL
							2,4-Dinitrotoluene	5 ug/mL
							2,6-Dichlorophenol	5 ug/mL
							2,6-Dinitrotoluene	5 ug/mL
							2-Chloronaphthalene	5 ug/mL
							2-Chlorophenol	5 ug/mL
							2-Methylnaphthalene	5 ug/mL
							2-Methylphenol	5 ug/mL
							2-Nitroaniline	5 ug/mL
							2-Nitrophenol	5 ug/mL
							3 & 4 Methylphenol	5 ug/mL
							3-Nitroaniline	5 ug/mL
							4,6-Dinitro-2-methylphenol	10 ug/mL
							4-Bromophenyl phenyl ether	5 ug/mL
							4-Chloro-3-methylphenol	5 ug/mL
							4-Chloroaniline	5 ug/mL
							4-Chlorophenyl phenyl ether	5 ug/mL
							4-Nitroaniline	5 ug/mL
							4-Nitrophenol	10 ug/mL
							Acenaphthene	5 ug/mL
							Acenaphthylene	5 ug/mL
							Acetophenone	5 ug/mL
							Aniline	5 ug/mL
							Anthracene	5 ug/mL
							Azobenzene	5 ug/mL
							Benzo[a]anthracene	5 ug/mL
							Benzo[a]pyrene	5 ug/mL
							Benzo[b]fluoranthene	5 ug/mL
							Benzo[g,h,i]perylene	5 ug/mL
							Benzo[k]fluoranthene	5 ug/mL
							Benzyl alcohol	5 ug/mL
							Bis(2-chloroethoxy)methane	5 ug/mL
							Bis(2-chloroethyl)ether	5 ug/mL
							Bis(2-ethylhexyl) phthalate	5 ug/mL
							Butyl benzyl phthalate	5 ug/mL
							Carbazole	5 ug/mL
							Chrysene	5 ug/mL
							Di-n-butyl phthalate	5 ug/mL
							Di-n-octyl phthalate	5 ug/mL
							Dibenz(a,h)anthracene	5 ug/mL
							Dibenzofuran	5 ug/mL
							Diethyl phthalate	5 ug/mL
							Dimethyl phthalate	5 ug/mL
							Fluoranthene	5 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorene	5 ug/mL
							Hexachlorobenzene	5 ug/mL
							Hexachlorobutadiene	5 ug/mL
							Hexachlorocyclopentadiene	5 ug/mL
							Hexachloroethane	5 ug/mL
							Hexadecane	5 ug/mL
							Indeno[1,2,3-cd]pyrene	5 ug/mL
							Isophorone	5 ug/mL
							n-Decane	5 ug/mL
							N-Nitrosodi-n-propylamine	5 ug/mL
							N-Nitrosodimethylamine	5 ug/mL
							N-Nitrosodiphenylamine	10 ug/mL
							n-Octadecane	5 ug/mL
							Naphthalene	5 ug/mL
							Nitrobenzene	5 ug/mL
							Pentachlorophenol	10 ug/mL
							Phenanthrene	5 ug/mL
							Phenol	5 ug/mL
							Pyrene	5 ug/mL
							Pyridine	5 ug/mL
							Benzoic acid	10 ug/mL
							Indene	10 ug/mL
							Atrazine	10 ug/mL
							Benzaldehyde	10 ug/mL
							Caprolactam	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Benzidine	10 ug/mL
							2,4,6-Tribromophenol (Surr)	5 ug/mL
							2-Fluorobiphenyl (Surr)	5 ug/mL
							2-Fluorophenol (Surr)	5 ug/mL
							Nitrobenzene-d5 (Surr)	5 ug/mL
							Phenol-d5 (Surr)	5 ug/mL
							Terphenyl-d14 (Surr)	5 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L6 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	200 uL	1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Hexadecane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							n-Decane	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							n-Octadecane	10 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							Benzoic acid	20 ug/mL
							Indene	20 ug/mL
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Benzidine	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L7 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	300 uL	1,1'-Biphenyl	15 ug/mL
							1,2,4,5-Tetrachlorobenzene	15 ug/mL
							1,2,4-Trichlorobenzene	15 ug/mL
							1,2-Dichlorobenzene	15 ug/mL
							1,2-Diphenylhydrazine	15 ug/mL
							1,3-Dichlorobenzene	15 ug/mL
							1,3-Dinitrobenzene	15 ug/mL
							1,4-Dichlorobenzene	15 ug/mL
							1,4-Dioxane	15 ug/mL
							1-Methylnaphthalene	15 ug/mL
							2,2'-oxybis[1-chloropropane]	15 ug/mL
							2,3,4,6-Tetrachlorophenol	15 ug/mL
							2,4,5-Trichlorophenol	15 ug/mL
							2,4,6-Trichlorophenol	15 ug/mL
							2,4-Dichlorophenol	15 ug/mL
							2,4-Dimethylphenol	15 ug/mL
							2,4-Dinitrophenol	30 ug/mL
							2,4-Dinitrotoluene	15 ug/mL
							2,6-Dichlorophenol	15 ug/mL
							2,6-Dinitrotoluene	15 ug/mL
							2-Chloronaphthalene	15 ug/mL
							2-Chlorophenol	15 ug/mL
							2-Methylnaphthalene	15 ug/mL
							2-Methylphenol	15 ug/mL
							2-Nitroaniline	15 ug/mL
							2-Nitrophenol	15 ug/mL
							3 & 4 Methylphenol	15 ug/mL
							3-Nitroaniline	15 ug/mL
							4,6-Dinitro-2-methylphenol	30 ug/mL
							4-Bromophenyl phenyl ether	15 ug/mL
							4-Chloro-3-methylphenol	15 ug/mL
							4-Chloroaniline	15 ug/mL
							4-Chlorophenyl phenyl ether	15 ug/mL
							4-Nitroaniline	15 ug/mL
							4-Nitrophenol	30 ug/mL
							Acenaphthene	15 ug/mL
							Acenaphthylene	15 ug/mL
							Acetophenone	15 ug/mL
							Aniline	15 ug/mL
							Anthracene	15 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	15 ug/mL
							Benzo[a]anthracene	15 ug/mL
							Benzo[a]pyrene	15 ug/mL
							Benzo[b]fluoranthene	15 ug/mL
							Benzo[g,h,i]perylene	15 ug/mL
							Benzo[k]fluoranthene	15 ug/mL
							Benzyl alcohol	15 ug/mL
							Bis(2-chloroethoxy)methane	15 ug/mL
							Bis(2-chloroethyl)ether	15 ug/mL
							Bis(2-ethylhexyl) phthalate	15 ug/mL
							Butyl benzyl phthalate	15 ug/mL
							Carbazole	15 ug/mL
							Chrysene	15 ug/mL
							Di-n-butyl phthalate	15 ug/mL
							Di-n-octyl phthalate	15 ug/mL
							Dibenz(a,h)anthracene	15 ug/mL
							Dibenzofuran	15 ug/mL
							Diethyl phthalate	15 ug/mL
							Dimethyl phthalate	15 ug/mL
							Fluoranthene	15 ug/mL
							Fluorene	15 ug/mL
							Hexachlorobenzene	15 ug/mL
							Hexachlorobutadiene	15 ug/mL
							Hexachlorocyclopentadiene	15 ug/mL
							Hexachloroethane	15 ug/mL
							Hexadecane	15 ug/mL
							Indeno[1,2,3-cd]pyrene	15 ug/mL
							Isophorone	15 ug/mL
							n-Decane	15 ug/mL
							N-Nitrosodi-n-propylamine	15 ug/mL
							N-Nitrosodimethylamine	15 ug/mL
							N-Nitrosodiphenylamine	30 ug/mL
							n-Octadecane	15 ug/mL
							Naphthalene	15 ug/mL
							Nitrobenzene	15 ug/mL
							Pentachlorophenol	30 ug/mL
							Phenanthrene	15 ug/mL
							Phenol	15 ug/mL
							Pyrene	15 ug/mL
							Pyridine	15 ug/mL
							Benzoic acid	30 ug/mL
							Indene	30 ug/mL
							Atrazine	30 ug/mL
							Benzaldehyde	30 ug/mL
							Caprolactam	30 ug/mL
							3,3'-Dichlorobenzidine	30 ug/mL
							Benzidine	30 ug/mL
							2,4,6-Tribromophenol (Surr)	15 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl (Surr)	15 ug/mL
							2-Fluorophenol (Surr)	15 ug/mL
							Nitrobenzene-d5 (Surr)	15 ug/mL
							Phenol-d5 (Surr)	15 ug/mL
							Terphenyl-d14 (Surr)	15 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16	Restek, Lot A0107943			(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L8 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	400 uL	1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Hexadecane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							n-Decane	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							n-Octadecane	20 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							Benzoic acid	40 ug/mL
							Indene	40 ug/mL
							Atrazine	40 ug/mL
							Benzaldehyde	40 ug/mL
							Caprolactam	40 ug/mL
							3,3'-Dichlorobenzidine	40 ug/mL
							Benzidine	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl (Surr)	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19	Restek, Lot A0101020			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 L9 W_00005	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMIS80PPMW_00011	100 uL	1,4-Dichlorobenzene-d4	4 ug/mL
							Acenaphthene-d10	4 ug/mL
							Chrysene-d12	4 ug/mL
							Naphthalene-d8	4 ug/mL
							Perylene-d12	4 ug/mL
							Phenanthrene-d10	4 ug/mL
					SMLIST1 STOCK_00005	500 uL	1,1'-Biphenyl	25 ug/mL
							1,2,4,5-Tetrachlorobenzene	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Diphenylhydrazine	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dinitrobenzene	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	25 ug/mL
							1-Methylnaphthalene	25 ug/mL
							2,2'-oxybis[1-chloropropane]	25 ug/mL
							2,3,4,6-Tetrachlorophenol	25 ug/mL
							2,4,5-Trichlorophenol	25 ug/mL
							2,4,6-Trichlorophenol	25 ug/mL
							2,4-Dichlorophenol	25 ug/mL
							2,4-Dimethylphenol	25 ug/mL
							2,4-Dinitrophenol	50 ug/mL
							2,4-Dinitrotoluene	25 ug/mL
							2,6-Dichlorophenol	25 ug/mL
							2,6-Dinitrotoluene	25 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	25 ug/mL
							2-Chlorophenol	25 ug/mL
							2-Methylnaphthalene	25 ug/mL
							2-Methylphenol	25 ug/mL
							2-Nitroaniline	25 ug/mL
							2-Nitrophenol	25 ug/mL
							3 & 4 Methylphenol	25 ug/mL
							3-Nitroaniline	25 ug/mL
							4,6-Dinitro-2-methylphenol	50 ug/mL
							4-Bromophenyl phenyl ether	25 ug/mL
							4-Chloro-3-methylphenol	25 ug/mL
							4-Chloroaniline	25 ug/mL
							4-Chlorophenyl phenyl ether	25 ug/mL
							4-Nitroaniline	25 ug/mL
							4-Nitrophenol	50 ug/mL
							Acenaphthene	25 ug/mL
							Acenaphthylene	25 ug/mL
							Acetophenone	25 ug/mL
							Aniline	25 ug/mL
							Anthracene	25 ug/mL
							Azobenzene	25 ug/mL
							Benzo[a]anthracene	25 ug/mL
							Benzo[a]pyrene	25 ug/mL
							Benzo[b]fluoranthene	25 ug/mL
							Benzo[g,h,i]perylene	25 ug/mL
							Benzo[k]fluoranthene	25 ug/mL
							Benzyl alcohol	25 ug/mL
							Bis(2-chloroethoxy)methane	25 ug/mL
							Bis(2-chloroethyl)ether	25 ug/mL
							Bis(2-ethylhexyl) phthalate	25 ug/mL
							Butyl benzyl phthalate	25 ug/mL
							Carbazole	25 ug/mL
							Chrysene	25 ug/mL
							Di-n-butyl phthalate	25 ug/mL
							Di-n-octyl phthalate	25 ug/mL
							Dibenz(a,h)anthracene	25 ug/mL
							Dibenzofuran	25 ug/mL
							Diethyl phthalate	25 ug/mL
							Dimethyl phthalate	25 ug/mL
							Fluoranthene	25 ug/mL
							Fluorene	25 ug/mL
							Hexachlorobenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexachlorocyclopentadiene	25 ug/mL
							Hexachloroethane	25 ug/mL
							Hexadecane	25 ug/mL
							Indeno[1,2,3-cd]pyrene	25 ug/mL
							Isophorone	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	25 ug/mL
							N-Nitrosodi-n-propylamine	25 ug/mL
							N-Nitrosodimethylamine	25 ug/mL
							N-Nitrosodiphenylamine	50 ug/mL
							n-Octadecane	25 ug/mL
							Naphthalene	25 ug/mL
							Nitrobenzene	25 ug/mL
							Pentachlorophenol	50 ug/mL
							Phenanthrene	25 ug/mL
							Phenol	25 ug/mL
							Pyrene	25 ug/mL
							Pyridine	25 ug/mL
							Benzoic acid	50 ug/mL
							Indene	50 ug/mL
							Atrazine	50 ug/mL
							Benzaldehyde	50 ug/mL
							Caprolactam	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Benzidine	50 ug/mL
							2,4,6-Tribromophenol (Surr)	25 ug/mL
							2-Fluorobiphenyl (Surr)	25 ug/mL
							2-Fluorophenol (Surr)	25 ug/mL
							Nitrobenzene-d5 (Surr)	25 ug/mL
							Phenol-d5 (Surr)	25 ug/mL
							Terphenyl-d14 (Surr)	25 ug/mL
.SMIS80PPMW_00011	08/31/15	08/14/14	MECL2, Lot 0000073814	25 mL	SMIS R_00005	1 mL	1,4-Dichlorobenzene-d4	80 ug/mL
							Acenaphthene-d10	80 ug/mL
							Chrysene-d12	80 ug/mL
							Naphthalene-d8	80 ug/mL
							Perylene-d12	80 ug/mL
							Phenanthrene-d10	80 ug/mL
..SMIS R_00005	01/31/19		Restek, Lot A0101020		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
.SMLIST1 STOCK_00005	05/31/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 S1_00005	1 mL	1,1'-Biphenyl	100 ug/mL
							1,2,4,5-Tetrachlorobenzene	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Diphenylhydrazine	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	100 ug/mL
							1-Methylnaphthalene	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,4,6-Tetrachlorophenol	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dichlorophenol	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Aniline	100 ug/mL
							Anthracene	100 ug/mL
							Azobenzene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Benzyl alcohol	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Hexadecane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							n-Decane	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							n-Octadecane	100 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
							Pyridine	100 ug/mL
					SMLIST1 S10_00001	1 mL	Benzoic acid	200 ug/mL
							Indene	200 ug/mL
					SMLIST1 S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1 S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
							Benzidine	200 ug/mL
					SMLIST1 SURR_00003	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 S1_00005	05/31/16		Restek, Lot A0107399		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..SMLIST1 S10_00001	06/30/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
..SMLIST1 S11_00001	06/30/16		Restek, Lot A0108035		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1 S9_00001	07/31/16		Restek, Lot A0108174		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
..SMLIST1 SURR_00003	02/22/18		Restek, Lot A093638		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
SMLIST1 SS W_00004	08/31/15	01/26/15	MECL2, Lot 0000093871	2 mL	SMLIST1 SS ST_00004	200 uL	1,1'-Biphenyl	10 ug/mL
							1,4-Dioxane	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL
							Acetophenone	10 ug/mL
							Anthracene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Atrazine	20 ug/mL
							Benzaldehyde	20 ug/mL
							Caprolactam	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl (Surr)	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
.SMLIST1 SS ST_00004	06/30/16	01/26/15	MECL2, Lot 0000093871	10 mL	SMLIST1 SS S1_00004	1 mL	1,1'-Biphenyl	100 ug/mL
							1,4-Dioxane	100 ug/mL
							2,2'-oxybis[1-chloropropane]	100 ug/mL
							2,4,5-Trichlorophenol	100 ug/mL
							2,4,6-Trichlorophenol	100 ug/mL
							2,4-Dichlorophenol	100 ug/mL
							2,4-Dimethylphenol	100 ug/mL
							2,4-Dinitrophenol	200 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Chloronaphthalene	100 ug/mL
							2-Chlorophenol	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							2-Methylphenol	100 ug/mL
							2-Nitroaniline	100 ug/mL
							2-Nitrophenol	100 ug/mL
							3 & 4 Methylphenol	100 ug/mL
							3-Nitroaniline	100 ug/mL
							4,6-Dinitro-2-methylphenol	200 ug/mL
							4-Bromophenyl phenyl ether	100 ug/mL
							4-Chloro-3-methylphenol	100 ug/mL
							4-Chloroaniline	100 ug/mL
							4-Chlorophenyl phenyl ether	100 ug/mL
							4-Nitroaniline	100 ug/mL
							4-Nitrophenol	200 ug/mL
							Acenaphthene	100 ug/mL
							Acenaphthylene	100 ug/mL
							Acetophenone	100 ug/mL
							Anthracene	100 ug/mL
							Benzo[a]anthracene	100 ug/mL
							Benzo[a]pyrene	100 ug/mL
							Benzo[b]fluoranthene	100 ug/mL
							Benzo[g,h,i]perylene	100 ug/mL
							Benzo[k]fluoranthene	100 ug/mL
							Bis(2-chloroethoxy)methane	100 ug/mL
							Bis(2-chloroethyl)ether	100 ug/mL
							Bis(2-ethylhexyl) phthalate	100 ug/mL
							Butyl benzyl phthalate	100 ug/mL
							Carbazole	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene	100 ug/mL
							Di-n-butyl phthalate	100 ug/mL
							Di-n-octyl phthalate	100 ug/mL
							Dibenz(a,h)anthracene	100 ug/mL
							Dibenzofuran	100 ug/mL
							Diethyl phthalate	100 ug/mL
							Dimethyl phthalate	100 ug/mL
							Fluoranthene	100 ug/mL
							Fluorene	100 ug/mL
							Hexachlorobenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexachlorocyclopentadiene	100 ug/mL
							Hexachloroethane	100 ug/mL
							Indeno[1,2,3-cd]pyrene	100 ug/mL
							Isophorone	100 ug/mL
							N-Nitrosodi-n-propylamine	100 ug/mL
							N-Nitrosodimethylamine	100 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							Naphthalene	100 ug/mL
							Nitrobenzene	100 ug/mL
							Pentachlorophenol	200 ug/mL
							Phenanthrene	100 ug/mL
							Phenol	100 ug/mL
							Pyrene	100 ug/mL
					SMLIST1 SS S9_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					SMLIST1SS S11_00001	1 mL	Atrazine	200 ug/mL
							Benzaldehyde	200 ug/mL
							Caprolactam	200 ug/mL
					SMLIST1SS SUR_00002	200 uL	2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl (Surr)	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
..SMLIST1 SS S1_00004	06/30/16		Restek, Lot A0107697		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Anthracene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	1000 ug/mL
..SMLIST1 SS S9_00001	07/31/16	Restek, Lot A0108170			(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..SMLIST1SS S11_00001	06/30/16	Restek, Lot A0108042			(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
..SMLIST1SS SUR_00002	09/30/18	Restek, Lot A092712			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl (Surr)	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
VGGASCALNEW_00013	06/22/15	03/16/15	MEOH, Lot 62345	25 mL	VGGASSTOCKNEW_00003	1 mL	C6-C12	100 ug/mL
							Gasoline Range Organics [C6 - C10]	100 ug/mL
.VGGASSTOCKNEW_00003	01/31/20	RESTEK, Lot A092645			(Purchased Reagent)		C6-C12	2500 ug/mL
							Gasoline Range Organics [C6 - C10]	2500 ug/mL
VGGASCHK_00059	05/06/15	03/09/15	MEOH, Lot 49909	50 mL	VGGASCHKSTK_00030	1 mL	Gasoline Range Organics [C6 - C10]	100 ug/mL
.VGGASCHKSTK_00030	05/06/15	ACCU STANDARD, Lot B5040009			(Purchased Reagent)		Gasoline Range Organics [C6 - C10]	5 mg/mL
VGGASURROGATE_00029	06/03/15	03/03/15	MEOH, Lot 49909	50 mL	VGSURRSTKGAS_00019	1.25 mL	Trifluorotoluene (Surr)	50 ug/mL
.VGSURRSTKGAS_00019	08/31/16	ULTRA SCIENTIFIC, Lot CE-1903A			(Purchased Reagent)		Trifluorotoluene (Surr)	2000 ug/mL
VM250-IS_00021	03/12/15	09/12/14	MEOH, Lot 134079	100 mL	vmcus8126_00008	1 mL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
.vmcus8126_00008	09/30/16	Ultra Scientific, Lot CL-3192			(Purchased Reagent)		1,4-Dichlorobenzene-d4	25000 ug/mL
							Chlorobenzene-d5	25000 ug/mL
							Fluorobenzene	25000 ug/mL
VM50IS_00048	08/06/15	02/05/15	MEOH, Lot 85233	100 mL	vm30241_00001	2 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.vm30241_00001	01/31/18	restek, Lot A093261			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm50ss_00192	03/07/15	02/28/15	MEOH, Lot na	2 mL	vm50ss_stk_00063	2 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00063	06/08/15	12/08/14	MEOH, Lot 0000085233	200 mL	VM567650_00021	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00021	04/30/19	Restek, Lot A0102817			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00196	04/08/15	04/01/15	MEOH, Lot na	2 mL	vm50ss_stk_00065	2 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00065	09/08/15	03/08/15	MEOH, Lot 0000085233	200 mL	VM567650_00021	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00021	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00063	06/08/15	12/08/14	MEOH, Lot 0000085233	200 mL	VM567650_00021	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00021	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00065	09/08/15	03/08/15	MEOH, Lot 0000085233	200 mL	VM567650_00021	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00021	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VMAROLISTDW_00090	03/07/15	02/28/15	MEOH, Lot na	3 mL	VMACROLSTD_00023	3 mL	Acrolein	250 ug/mL
.VMACROLSTD_00023	03/31/15	02/28/15	MEOH, Lot 0000085233	20 mL	VM568720_00005	0.25 mL	Acrolein	250 ug/mL
..VM568720_00005	03/31/15		restek, Lot A0107338		(Purchased Reagent)		Acrolein	20000 ug/mL
VMAROLISTDW_00095	04/14/15	04/07/15	MEOH, Lot na	3 mL	VMACROLSTD_00024	3 mL	Acrolein	250 ug/mL
.VMACROLSTD_00024	04/30/15	03/31/15	MEOH, Lot 0000085233	20 mL	VM568720_00006	0.25 mL	Acrolein	250 ug/mL
..VM568720_00006	05/31/15		restek, Lot A0108734		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASA9W_00052	04/13/15	04/06/15	MEOH, Lot NA	2 mL	VMFASA9_00004	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00004	06/30/15	02/06/15	MEOH, Lot 0000085233	100 mL	vm568722S_00002	2.5 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM568723S_00001	2.5 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..vm568722S_00002	06/30/15		restek, Lot A0100258		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
..VM568723S_00001	04/30/16		restek, Lot A0102749		(Purchased Reagent)		Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tert-amyl methyl ether	2000 ug/mL
VMFASGW_00084	03/07/15	02/28/15	MEOH, Lot NA	2 mL	VMFASG_00026	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00026	03/12/15	02/12/15	MEOH, Lot +161620000085233JB	50 mL	VM567645S_00017	1.25 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..VM567645S_00017	11/30/15	Restek, Lot A099261			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
VMFASGW_00089	04/13/15	04/07/15	MEOH, Lot NA	2 mL	VMFASG_00027	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00027	04/13/15	03/13/15	MEOH, Lot 0000085233	50 mL	VM567645S_00017	1.25 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..VM567645S_00017	11/30/15	Restek, Lot A099261			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
VMFASPW_00087	03/04/15	02/25/15	MEOH, Lot n/a	2 mL	VMRFASP_00018	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	60 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00018	03/12/15	02/12/15	MEOH, Lot +161620000085233JB	100 mL	VM567641S_00006	2.5 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM567642S_00003	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643S_00012	3 mL	2-Chloroethyl vinyl ether	60 ug/mL
					VM567646S_00009	1.25 mL	Vinyl acetate	50 ug/mL
..VM567641S_00006	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642S_00003	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643S_00012	07/31/17		Restek, Lot A0104963		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM567646S_00009	05/31/15		Restek, Lot A0107040		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
VMFASPW_00093	04/11/15	04/07/15	MEOH, Lot n/a	2 mL	VMRFASP_00019	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	60 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00019	04/11/15	03/11/15	MEOH, Lot +161620000085233JB	100 mL	VM567641S_00006	2.5 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM567642S_00005	1 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643S_00012	3 mL	2-Chloroethyl vinyl ether	60 ug/mL
					VM567646S_00009	1.25 mL	Vinyl acetate	50 ug/mL
..VM567641S_00006	02/29/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
..VM567642S_00005	02/29/16		Restek, Lot A093472		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643S_00012	07/31/17		Restek, Lot A0104963		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM567646S_00009	05/31/15		Restek, Lot A0107040		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
VMRA9W_00090	01/21/15	01/14/15	MEOH, Lot NA	1 mL	VMRA9_00011	1 mL	Cyclohexanone	500 ug/mL
							2-Methylnaphthalene	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00011	02/28/15	10/29/14	MEOH, Lot 0000085233	50 mL	VM567648_00014	1.25 mL	Cyclohexanone	500 ug/mL
					vm567719_00020	2.5 mL	2-Methylnaphthalene	100 ug/mL
					vm568722_00002	1.25 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
					VM568723_00001	1.25 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM567648_00014	02/29/16		Restek, Lot A093361		(Purchased Reagent)		Cyclohexanone	20000 ug/mL
..vm567719_00020	02/28/15		Restek, Lot A093359		(Purchased Reagent)		2-Methylnaphthalene	2000 ug/mL
..vm568722_00002	06/30/15		restek, Lot A0100262		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
							1,3,5-Trichlorobenzene	2000 ug/mL
							1-Chlorohexane	2000 ug/mL
							2-Chloro-1,3-butadiene	2000 ug/mL
							2-Nitropropane	4000 ug/mL
							Ethyl acetate	4000 ug/mL
							Ethyl acrylate	2000 ug/mL
							Methacrylonitrile	20000 ug/mL
							Methyl methacrylate	4000 ug/mL
							n-Butanol	50000 ug/mL
..VM568723_00001	12/31/15		restek, Lot A099930		(Purchased Reagent)		Acetonitrile	20000 ug/mL
							Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
VMRA9W_00100	04/08/15	04/01/15	MEOH, Lot NA	1 mL	VMRA9_00012	1 mL	Cyclohexanone	500 ug/mL
							2-Methylnaphthalene	100 ug/mL
							Pentachloroethane	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	50 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
							n-Butyl acetate	50 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00012	06/30/15	02/28/15	MEOH, Lot 0000085233	50 mL	VM567648_00014	1.25 mL	Cyclohexanone	500 ug/mL
					vm567719_00021	2.5 mL	2-Methylnaphthalene	100 ug/mL
							Pentachloroethane	100 ug/mL
					vm568722_00002	1.25 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butanol	1250 ug/mL
							n-Butyl acetate	50 ug/mL
					VM568723_00001	1.25 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM567648_00014	02/29/16	Restek, Lot A093361			(Purchased Reagent)		Cyclohexanone	20000 ug/mL
..vm567719_00021	01/31/16	Restek, Lot A0100744			(Purchased Reagent)		2-Methylnaphthalene	2000 ug/mL
							Pentachloroethane	2000 ug/mL
..vm568722_00002	06/30/15	restek, Lot A0100262			(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
							1,3,5-Trichlorobenzene	2000 ug/mL
							1-Chlorohexane	2000 ug/mL
							2-Chloro-1,3-butadiene	2000 ug/mL
							2-Nitropropane	4000 ug/mL
							Benzyl chloride	2000 ug/mL
							Ethyl acetate	4000 ug/mL
							Ethyl acrylate	2000 ug/mL
							Methacrylonitrile	20000 ug/mL
							Methyl methacrylate	4000 ug/mL
							n-Butanol	50000 ug/mL
							n-Butyl acetate	2000 ug/mL
..VM568723_00001	12/31/15	restek, Lot A099930			(Purchased Reagent)		Acetonitrile	20000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Propionitrile	20000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
VMRA9W_00101	04/16/15	04/09/15	MEOH, Lot NA	1 mL	VMRA9_00012	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00012	06/30/15	02/28/15	MEOH, Lot 0000085233	50 mL	vm568722_00002	1.25 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM568723_00001	1.25 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..vm568722_00002	06/30/15		restek, Lot A0100262		(Purchased Reagent)		1,2,3-Trimethylbenzene	2000 ug/mL
..VM568723_00001	12/31/15		restek, Lot A099930		(Purchased Reagent)		Diisopropyl ether	2000 ug/mL
							Ethyl t-butyl ether	2000 ug/mL
							Tert-amyl methyl ether	2000 ug/mL
VMRGAS_00092	03/07/15	02/28/15	MEOH, Lot 0000085233	10 mL	vm569722_00001	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00001	01/31/18		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00097	04/14/15	04/07/15	MEOH, Lot 0000085233	10 mL	vm569722_00001	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00001	01/31/18		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMRPRIMW_00114	03/07/15	02/28/15	MEOH, Lot NA	1 mL	VMRPRIM_00010	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	48 ug/mL
.VMRPRIM_00010	05/31/15	12/10/14	MEOH, Lot +161620000085233JB	50 mL	VM567641_00012	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM567642_00014	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM567646_00016	0.6 mL	Vinyl acetate	48 ug/mL
..VM567641_00012	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
..VM567642_00014	02/29/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16		restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM567646_00016	05/31/15		Restek, Lot A0107309		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
VMRPRIMW_00120	04/14/15	04/07/15	MEOH, Lot NA	1 mL	VMRPRIM_00010	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	48 ug/mL
.VMRPRIM_00010	05/31/15	12/10/14	MEOH, Lot +161620000085233JB	50 mL	VM567641_00012	1.25 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM567642_00014	0.5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM567643_00020	2.5 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM567646_00016	0.6 mL	Vinyl acetate	48 ug/mL
..VM567641_00012	02/29/16		restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol (TBA)	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
..VM567642_00014	02/29/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VM567643_00020	02/29/16		restek, Lot A093368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
..VM567646_00016	05/31/15		Restek, Lot A0107309		(Purchased Reagent)		Vinyl acetate	4000 ug/mL
VMRPRIMW_00120	04/14/15	04/07/15	MEOH, Lot NA	1 mL	VMRPRIM_00010	1 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00010	05/31/15	12/10/14	MEOH, Lot +161620000085233JB	50 mL	VM567641_00012	1.25 mL	Xylenes, Total	100 ug/mL
..VM567641_00012	02/29/16		restek, Lot A093581		(Purchased Reagent)		Xylenes, Total	4000 ug/mL
VMUX8SS_00017	04/27/15	01/27/15	MEOH, Lot 0000085233	100 mL	VMCUS8125_00009	866 uL	1,2-Dichloroethane-d4 (Surr)	216.5 ug/mL
							4-Bromofluorobenzene (Surr)	216.5 ug/mL
							Dibromofluoromethane (Surr)	216.5 ug/mL
							Toluene-d8 (Surr)	216.5 ug/mL
.VMCUS8125_00009	09/30/16		Ultra Scientific, Lot CJ-3208		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	25000 ug/mL
							4-Bromofluorobenzene (Surr)	25000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromofluoromethane (Surr)	25000 ug/mL
							Toluene-d8 (Surr)	25000 ug/mL
VMUX8SS_00018	06/18/15	03/18/15	MEOH, Lot 0000085233	100 mL	VMCUS8125_00009	866 uL	1,2-Dichloroethane-d4 (Surr)	216.5 ug/mL
							4-Bromofluorobenzene (Surr)	216.5 ug/mL
							Dibromofluoromethane (Surr)	216.5 ug/mL
							Toluene-d8 (Surr)	216.5 ug/mL
.VMCUS8125_00009	09/30/16	Ultra Scientific, Lot CJ-3208			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	25000 ug/mL
							4-Bromofluorobenzene (Surr)	25000 ug/mL
							Dibromofluoromethane (Surr)	25000 ug/mL
							Toluene-d8 (Surr)	25000 ug/mL

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-49010-1
Project/Site: MRC-Middle River

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Florida	NELAP	4	E87225
TestAmerica Canton	Georgia	State Program	4	N/A
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	
TestAmerica Canton	USDA	Federal		P330-13-00319
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-040615	240-49010-2	92	95	94	100
	MB 240-175730/6	93	94	96	98
	LCS 240-175730/4	94	93	96	98
	240-49022-A-1 MS	92	93	95	99
	240-49022-D-1 MSD	94	92	97	101

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7083.D

Lab ID: LCS 240-175730/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.1	101	72-120	
1,1,1-Trichloroethane	10.0	10.4	104	74-120	
1,1,2,2-Tetrachloroethane	10.0	9.71	97	68-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.0	110	74-151	
1,1-Dichloroethane	10.0	10.5	105	80-120	
1,1-Dichloroethene	10.0	10.7	107	78-131	
1,1-Dichloropropene	10.0	10.8	108	80-120	
1,2,3-Trichlorobenzene	10.0	9.59	96	54-126	
1,2,3-Trichloropropane	10.0	10.2	102	73-129	
1,2,4-Trichlorobenzene	10.0	9.73	97	48-135	
1,2,4-Trimethylbenzene	10.0	9.75	97	76-120	
1,2-Dibromo-3-Chloropropane	10.0	10.2	102	42-136	
1,2-Dichlorobenzene	10.0	9.77	98	80-120	
1,2-Dichloroethane	10.0	10.4	104	71-127	
1,2-Dichloropropane	10.0	10.1	101	80-120	
1,3-Dichlorobenzene	10.0	9.82	98	80-120	
1,3-Dichloropropane	10.0	9.62	96	79-120	
1,4-Dichlorobenzene	10.0	9.90	99	80-120	
2,2-Dichloropropane	10.0	10.2	102	50-129	
2-Chloroethyl vinyl ether	12.0	12.4	103	52-131	
2-Chlorotoluene	10.0	10.1	101	76-120	
2-Hexanone	20.0	19.2	96	55-133	
Bromobenzene	10.0	10.1	101	76-120	
Bromochloromethane	10.0	9.90	99	77-120	
4-Chlorotoluene	10.0	9.62	96	77-120	
p-Isopropyltoluene	10.0	9.88	99	74-120	
Acetone	20.0	17.4	87	43-136	
Benzene	10.0	10.1	101	80-120	
Bromoform	10.0	9.74	97	40-131	
Bromomethane	10.0	8.58	86	11-185	
Carbon disulfide	10.0	10.9	109	62-142	
Carbon tetrachloride	10.0	10.8	108	66-128	
Chlorobenzene	10.0	9.79	98	80-120	
Chloroethane	10.0	8.70	87	25-153	
Chloroform	10.0	10.1	101	79-120	
Chloromethane	10.0	8.18	82	44-126	
cis-1,2-Dichloroethene	10.0	10.1	101	80-120	
cis-1,3-Dichloropropene	10.0	10.5	105	61-120	
Hexachlorobutadiene	10.0	9.48	95	36-134	
Dibromomethane	10.0	10.2	102	80-120	
Bromodichloromethane	10.0	9.81	98	72-121	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7083.D

Lab ID: LCS 240-175730/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	7.10	71	19-129	
Ethylbenzene	10.0	10.1	101	80-120	
1,2-Dibromoethane	10.0	10.0	100	79-120	
Naphthalene	10.0	9.44	94	32-141	
m-Xylene & p-Xylene	10.0	9.83	98	80-120	
n-Butylbenzene	10.0	9.90	99	66-125	
Isopropylbenzene	10.0	9.91	99	75-120	
N-Propylbenzene	10.0	10.3	103	74-121	
2-Butanone (MEK)	20.0	19.9	100	60-126	
4-Methyl-2-pentanone (MIBK)	20.0	20.1	100	63-128	
sec-Butylbenzene	10.0	9.99	100	70-120	
Methyl tert-butyl ether	10.0	10.3	103	52-144	
Methylene Chloride	10.0	10.5	105	66-131	
o-Xylene	10.0	10.1	101	80-120	
Styrene	10.0	9.36	94	79-120	
tert-Butylbenzene	10.0	10.1	101	71-120	
Tetrachloroethene	10.0	10.1	101	79-120	
Toluene	10.0	10.0	100	80-120	
trans-1,2-Dichloroethene	10.0	10.6	106	80-120	
trans-1,3-Dichloropropene	10.0	10.8	108	58-120	
Trichloroethene	10.0	10.4	104	76-120	
Trichlorofluoromethane	10.0	10.0	100	49-157	
Vinyl acetate	10.0	7.85	78	46-161	
Vinyl chloride	10.0	8.68	87	53-127	
tert-Butyl alcohol (TBA)	100	95.3	95	70-130	
Xylenes, Total	20.0	19.9	100	80-120	
Dibromochloromethane	10.0	10.0	100	64-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7106.D

Lab ID: 240-49022-A-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	0.44 U	9.52	95	68-121	
1,1,2,2-Tetrachloroethane	10.0	0.22 U	9.34	93	63-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	0.45 U	9.50	95	70-152	
1,1-Dichloroethane	10.0	0.30 U	9.95	99	79-120	
1,1-Dichloroethene	10.0	0.45 U	9.80	98	74-135	
1,2,4-Trichlorobenzene	10.0	0.32 U	7.42	74	38-138	
1,2-Dibromo-3-Chloropropane	10.0	0.82 U	9.35	93	32-139	
1,2-Dichlorobenzene	10.0	0.25 U	8.31	83	75-120	
1,2-Dichloroethane	10.0	0.23 U	9.78	98	68-129	
1,2-Dichloropropane	10.0	0.25 U	9.42	94	78-120	
1,3-Dichlorobenzene	10.0	0.19 U	7.90	79	73-120	
1,4-Dichlorobenzene	10.0	0.27 U	7.99	80	75-120	
2-Hexanone	20.0	0.48 U	18.8	94	47-139	
Acetone	20.0	1.8 J	16.6	74	33-145	
Benzene	10.0	0.35 U	9.51	95	72-121	
Bromoform	10.0	0.56 U	8.57	86	32-128	
Bromomethane	10.0	0.44 U	8.15	82	10-186	
Carbon disulfide	10.0	0.38 U	9.72	97	57-147	
Carbon tetrachloride	10.0	0.43 U	9.81	98	59-129	
Chlorobenzene	10.0	0.25 U	8.56	86	80-120	
Chloroethane	10.0	0.32 U	8.31	83	21-165	
Chloroform	10.0	0.25 U	9.50	95	76-120	
Chloromethane	10.0	0.44 U	8.01	80	33-132	
cis-1,2-Dichloroethene	10.0	0.26 U	9.51	95	70-120	
cis-1,3-Dichloropropene	10.0	0.46 U	9.20	92	51-120	
Bromodichloromethane	10.0	0.29 U	9.04	90	67-120	
Dichlorodifluoromethane	10.0	0.32 U	6.26	63	17-128	
Ethylbenzene	10.0	0.25 U	8.69	87	75-120	
1,2-Dibromoethane	10.0	0.32 U	9.49	95	74-120	
m-Xylene & p-Xylene	10.0	0.24 U	8.48	85	75-120	
Isopropylbenzene	10.0	0.35 U	8.31	83	68-120	
2-Butanone (MEK)	20.0	0.53 U	18.6	93	54-129	
4-Methyl-2-pentanone (MIBK)	20.0	0.99 U	20.6	103	56-131	
Methyl tert-butyl ether	10.0	0.20 U	10.1	101	46-144	
Methylene Chloride	10.0	0.33 U	9.26	93	63-128	
o-Xylene	10.0	0.25 U	8.84	88	76-120	
Styrene	10.0	0.45 U	7.49	75	71-120	
Tetrachloroethene	10.0	0.31 U	8.67	87	70-120	
Toluene	10.0	0.23 U	9.03	90	78-120	
trans-1,2-Dichloroethene	10.0	0.30 U	9.38	94	80-120	
trans-1,3-Dichloropropene	10.0	0.56 U	9.63	96	46-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7106.D

Lab ID: 240-49022-A-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	10.0	0.22 U	9.24	92	66-120	
Trichlorofluoromethane	10.0	0.49 U	8.96	90	46-157	
Vinyl chloride	10.0	0.29 U	8.04	80	49-130	
Xylenes, Total	20.0	0.52 U	17.3	87	76-120	
Dibromochloromethane	10.0	0.43 U	9.03	90	56-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7107.D

Lab ID: 240-49022-D-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.46	95	1	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	9.21	92	1	30	63-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.3	103	8	30	70-152	
1,1-Dichloroethane	10.0	10.0	100	1	30	79-120	
1,1-Dichloroethene	10.0	9.82	98	0	30	74-135	
1,2,4-Trichlorobenzene	10.0	8.11	81	9	30	38-138	
1,2-Dibromo-3-Chloropropane	10.0	9.10	91	3	30	32-139	
1,2-Dichlorobenzene	10.0	8.43	84	2	30	75-120	
1,2-Dichloroethane	10.0	9.68	97	1	30	68-129	
1,2-Dichloropropane	10.0	9.38	94	0	30	78-120	
1,3-Dichlorobenzene	10.0	8.32	83	5	30	73-120	
1,4-Dichlorobenzene	10.0	8.34	83	4	30	75-120	
2-Hexanone	20.0	19.9	99	6	30	47-139	
Acetone	20.0	17.0	76	3	30	33-145	
Benzene	10.0	9.43	94	1	30	72-121	
Bromoform	10.0	8.66	87	1	30	32-128	
Bromomethane	10.0	9.27	93	13	30	10-186	
Carbon disulfide	10.0	10.1	101	4	30	57-147	
Carbon tetrachloride	10.0	10.1	101	3	30	59-129	
Chlorobenzene	10.0	8.68	87	1	30	80-120	
Chloroethane	10.0	8.58	86	3	30	21-165	
Chloroform	10.0	9.36	94	1	30	76-120	
Chloromethane	10.0	8.20	82	2	30	33-132	
cis-1,2-Dichloroethene	10.0	9.63	96	1	30	70-120	
cis-1,3-Dichloropropene	10.0	9.25	92	1	30	51-120	
Bromodichloromethane	10.0	9.20	92	2	30	67-120	
Dichlorodifluoromethane	10.0	6.65	67	6	30	17-128	
Ethylbenzene	10.0	8.98	90	3	30	75-120	
1,2-Dibromoethane	10.0	9.57	96	1	30	74-120	
m-Xylene & p-Xylene	10.0	8.80	88	4	30	75-120	
Isopropylbenzene	10.0	8.78	88	5	30	68-120	
2-Butanone (MEK)	20.0	18.7	93	0	30	54-129	
4-Methyl-2-pentanone (MIBK)	20.0	20.3	102	1	30	56-131	
Methyl tert-butyl ether	10.0	9.86	99	2	30	46-144	
Methylene Chloride	10.0	9.21	92	1	30	63-128	
o-Xylene	10.0	9.13	91	3	30	76-120	
Styrene	10.0	7.62	76	2	30	71-120	
Tetrachloroethene	10.0	8.92	89	3	30	70-120	
Toluene	10.0	9.17	92	1	30	78-120	
trans-1,2-Dichloroethene	10.0	9.71	97	3	30	80-120	
trans-1,3-Dichloropropene	10.0	9.77	98	1	30	46-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7107.D

Lab ID: 240-49022-D-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	10.0	9.44	94	2	30	66-120	
Trichlorofluoromethane	10.0	9.75	97	8	30	46-157	
Vinyl chloride	10.0	7.97	80	1	30	49-130	
Xylenes, Total	20.0	17.9	90	3	30	76-120	
Dibromochloromethane	10.0	8.96	90	1	30	56-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: UXM7085.D Lab Sample ID: MB 240-175730/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/09/2015 12:06

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-175730/4	UXM7083.D	04/09/2015 11:20
TB-040615	240-49010-2	UXM7102.D	04/09/2015 18:34
	240-49022-A-1 MS	UXM7106.D	04/09/2015 20:05
	240-49022-D-1 MSD	UXM7107.D	04/09/2015 20:28

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: BFB4271.D BFB Injection Date: 04/08/2015

Instrument ID: A3UX16 BFB Injection Time: 12:22

Analysis Batch No.: 175603

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.2	
75	30.0 - 60.0 % of mass 95	43.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	89.8	
175	5.0 - 9.0 % of mass 174	5.9	(6.6)1
176	95.0 - 101.0 % of mass 174	87.4	(97.3)1
177	5.0 - 9.0 % of mass 176	5.5	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-175603/2	UXM7066.D	04/08/2015	12:59
	STD8260 240-175603/3	UXM7067.D	04/08/2015	13:22
	STD8260 240-175603/4	UXM7068.D	04/08/2015	13:44
	STD8260 240-175603/5	UXM7069.D	04/08/2015	14:07
	STD8260 240-175603/6	UXM7070.D	04/08/2015	14:30
	STD8260 240-175603/7	UXM7071.D	04/08/2015	14:53
	ICV 240-175603/8	UXM7072.D	04/08/2015	15:15
	STDA9 240-175603/9	UXM7073.D	04/08/2015	15:38
	STDA9 240-175603/10	UXM7074.D	04/08/2015	16:01
	STDA9 240-175603/11	UXM7075.D	04/08/2015	16:24
	STDA9 240-175603/12	UXM7076.D	04/08/2015	16:46
	STDA9 240-175603/13	UXM7077.D	04/08/2015	17:09
	STDA9 240-175603/14	UXM7078.D	04/08/2015	17:32
	ICV 240-175603/15	UXM7079.D	04/08/2015	17:55

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: BFB4272.D BFB Injection Date: 04/09/2015

Instrument ID: A3UX16 BFB Injection Time: 09:53

Analysis Batch No.: 175730

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.6	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.7	(0.7)1
174	50.0 - 120.00 % of mass 95	89.6	
175	5.0 - 9.0 % of mass 174	5.9	(6.6)1
176	95.0 - 101.0 % of mass 174	86.2	(96.2)1
177	5.0 - 9.0 % of mass 176	5.5	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-175730/2	UXM7081.D	04/09/2015	10:35
	CCV 240-175730/3	UXM7082.D	04/09/2015	10:57
	LCS 240-175730/4	UXM7083.D	04/09/2015	11:20
	MB 240-175730/6	UXM7085.D	04/09/2015	12:06
TB-040615	240-49010-2	UXM7102.D	04/09/2015	18:34
	240-49022-A-1 MS	UXM7106.D	04/09/2015	20:05
	240-49022-D-1 MSD	UXM7107.D	04/09/2015	20:28

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: STD8260 240-175603/4 Date Analyzed: 04/08/2015 13:44

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM7068.D Heated Purge: (Y/N) N

Calibration ID: 27787

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1548065	5.59	1098353	8.28	639037	10.51
UPPER LIMIT		3096130	6.09	2196706	8.78	1278074	11.01
LOWER LIMIT		774033	5.09	549177	7.78	319519	10.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-175603/8		1626133	5.59	1148226	8.28	645335	10.51
ICV 240-175603/15		1567926	5.59	1133432	8.28	599695	10.51
CCVIS 240-175730/2		1619605	5.59	1165506	8.28	663916	10.51

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCVIS 240-175730/2 Date Analyzed: 04/09/2015 10:35

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM7081.D Heated Purge: (Y/N) N

Calibration ID: 27790

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1619605	5.59	1165506	8.28	663916	10.51
UPPER LIMIT		3239210	6.09	2331012	8.78	1327832	11.01
LOWER LIMIT		809803	5.09	582753	7.78	331958	10.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-175730/3		1607368	5.59	1138317	8.28	629349	10.51
LCS 240-175730/4		1619676	5.59	1168877	8.28	648310	10.51
MB 240-175730/6		1561297	5.59	1133994	8.28	583466	10.51
240-49010-2	TB-040615	1505110	5.59	1081015	8.28	583866	10.51
240-49022-A-1 MS		1539715	5.59	1107286	8.28	617415	10.51
240-49022-D-1 MSD		1529772	5.59	1081252	8.28	612420	10.51

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: TB-040615 | Lab Sample ID: 240-49010-2

Matrix: Water | Lab File ID: UXM7102.D

Analysis Method: 8260B | Date Collected: 04/06/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 18:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
108-86-1	Bromobenzene	0.35	U	1.0	0.35
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
67-64-1	Acetone	0.94	U	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: TB-040615 | Lab Sample ID: 240-49010-2

Matrix: Water | Lab File ID: UXM7102.D

Analysis Method: 8260B | Date Collected: 04/06/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 18:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
74-95-3	Dibromomethane	0.42	U	1.0	0.42
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32
108-20-3	Diisopropyl ether	0.50	U	10	0.50
91-20-3	Naphthalene	0.45	U	1.0	0.45
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
78-93-3	2-Butanone (MEK)	0.53	U	10	0.53
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
95-47-6	o-Xylene	0.25	U	1.0	0.25
100-42-5	Styrene	0.45	U	1.0	0.45
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: TB-040615 | Lab Sample ID: 240-49010-2

Matrix: Water | Lab File ID: UXM7102.D

Analysis Method: 8260B | Date Collected: 04/06/2015 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 18:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-129
460-00-4	4-Bromofluorobenzene (Surr)	100		66-120
2037-26-5	Toluene-d8 (Surr)	94		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-175603/7	UXM7071.D
Level 2	STD8260 240-175603/6	UXM7070.D
Level 3	STD8260 240-175603/5	UXM7069.D
Level 4	STD8260 240-175603/4	UXM7068.D
Level 5	STD8260 240-175603/3	UXM7067.D
Level 6	STD8260 240-175603/2	UXM7066.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1833 0.2041	0.1781	0.1744	0.1568	0.2090	Ave		0.1843				10.6		15.0			
Chloromethane	0.2517 0.2544	0.2624	0.2546	0.2508	0.2480	Ave		0.2536			0.1000	1.9		15.0			
Vinyl chloride	0.2837 0.2921	0.2803	0.2773	0.2582	0.2802	Ave		0.2786				4.0		15.0			
Butadiene	0.2508 0.2658	0.2588	0.2486	0.2172	0.2639	Ave		0.2509				7.1		15.0			
Bromomethane	0.1508 0.1269	0.1380	0.1275	0.1338	0.1289	Ave		0.1343				6.8		15.0			
Chloroethane	0.1685 0.1630	0.1697	0.1592	0.1588	0.1615	Ave		0.1634				2.8		15.0			
Dichlorofluoromethane	0.3803 0.3626	0.3786	0.3496	0.3636	0.3596	Ave		0.3657				3.2		15.0			
Trichlorofluoromethane	0.2373 0.2626	0.2504	0.2297	0.2163	0.2607	Ave		0.2428				7.5		15.0			
Ethyl ether	0.1803 0.1824	0.1847	0.1741	0.1841	0.1760	Ave		0.1803				2.4		15.0			
Acrolein	0.0215 0.0247	0.0233	0.0240	0.0216	0.0247	Ave		0.0233				6.2		15.0			
1,1-Dichloroethene	0.2005 0.2123	0.1917	0.1993	0.2051	0.2048	Ave		0.2023				3.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1546 0.1634	0.1426	0.1497	0.1644	0.1685	Ave		0.1572				6.3		15.0			
Acetone	0.0710 0.0550	0.0645	0.0573	0.0573	0.0576	Ave		0.0604				10.1		15.0			
Iodomethane	0.3228 0.3200	0.3186	0.3109	0.3321	0.3049	Ave		0.3182				3.0		15.0			
Carbon disulfide	0.6144 0.6473	0.6200	0.6167	0.6180	0.6164	Ave		0.6221				2.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1334 0.1427	0.1387	0.1342	0.1426	0.1349	Ave		0.1377				3.1		15.0			
Methyl acetate	0.1300 0.1383	0.1321	0.1294	0.1357	0.1337	Ave		0.1332				2.6		15.0			
Methylene Chloride	0.3536 0.2403	0.2921	0.2540	0.2585	0.2339	Lin1	0.1164	0.2357							0.9990		0.9900
tert-Butyl alcohol (TBA)	0.0132 0.0125	0.0133	0.0123	0.0127	0.0127	Ave		0.0128				3.0		15.0			
Acrylonitrile	0.0675 0.0726	0.0660	0.0653	0.0723	0.0711	Ave		0.0691				4.8		15.0			
trans-1,2-Dichloroethene	0.2473 0.2416	0.2540	0.2379	0.2443	0.2312	Ave		0.2427				3.2		15.0			
Methyl tert-butyl ether	0.5747 0.6168	0.5772	0.5867	0.6059	0.5892	Ave		0.5917				2.8		15.0			
Hexane	0.0550 0.0638	0.0504	0.0570	0.0601	0.0649	Ave		0.0585				9.4		15.0			
1,1-Dichloroethane	0.4018 0.4100	0.3831	0.3874	0.4100	0.3890	Ave		0.3969			0.1000	3.0		15.0			
Vinyl acetate	0.1646 0.1765	0.1621	0.1610	0.1725	0.1681	Ave		0.1675				3.6		15.0			
2-Butanone (MEK)	0.0747 0.0760	0.0750	0.0727	0.0760	0.0766	Ave		0.0752				1.9		15.0			
cis-1,2-Dichloroethene	0.2507 0.2661	0.2645	0.2547	0.2694	0.2488	Ave		0.2590				3.4		15.0			
2,2-Dichloropropane	0.2655 0.2497	0.2482	0.2589	0.2602	0.2434	Ave		0.2543				3.3		15.0			
Bromochloromethane	0.1265 0.1238	0.1168	0.1176	0.1275	0.1170	Ave		0.1215				4.1		15.0			
Tetrahydrofuran	0.0510 0.0477	0.0502	0.0452	0.0467	0.0464	Ave		0.0479				4.8		15.0			
Chloroform	0.3796 0.3964	0.3849	0.3953	0.4052	0.3705	Ave		0.3887				3.3		15.0			
1,1,1-Trichloroethane	0.2899 0.3024	0.2855	0.2972	0.3084	0.2910	Ave		0.2957				2.9		15.0			
Cyclohexane	0.3496 0.3871	0.3268	0.3615	0.3732	0.3956	Ave		0.3656				6.9		15.0			
1,1-Dichloropropene	0.2946 0.3099	0.3016	0.2962	0.2984	0.2972	Ave		0.2996				1.8		15.0			
Carbon tetrachloride	0.2280 0.2579	0.2402	0.2379	0.2447	0.2479	Ave		0.2428				4.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0045 0.0044	0.0046	0.0043	0.0044	0.0044	Ave		0.0044				2.4		15.0			
1,2-Dichloroethane	0.2488 0.2792	0.2747	0.2705	0.2842	0.2650	Ave		0.2704				4.6		15.0			
Benzene	0.9963 1.0421	0.9831	0.9902	1.0340	0.9655	Ave		1.0019				3.0		15.0			
n-Heptane	0.4108 0.1539	0.2574	0.1957	0.1662	0.1711	Lin1	0.2434	0.1498							0.9980		0.9900
Trichloroethene	0.2482 0.2624	0.2520	0.2554	0.2625	0.2472	Ave		0.2546				2.6		15.0			
Methylcyclohexane	0.3760 0.4084	0.3601	0.3743	0.3879	0.4198	Ave		0.3877				5.8		15.0			
1,2-Dichloropropane	0.2116 0.2377	0.2235	0.2308	0.2357	0.2207	Ave		0.2267				4.4		15.0			
Dibromomethane	0.1112 0.1252	0.1202	0.1186	0.1268	0.1197	Ave		0.1203				4.6		15.0			
1,4-Dioxane	0.0014 0.0017	0.0017	0.0017	0.0017	0.0017	Ave		0.0017				7.0		15.0			
Bromodichloromethane	0.2601 0.2993	0.2722	0.2736	0.2929	0.2728	Ave		0.2785				5.3		15.0			
2-Chloroethyl vinyl ether	0.1069 0.1290	0.1150	0.1168	0.1249	0.1236	Ave		0.1194				6.7		15.0			
cis-1,3-Dichloropropene	0.2996 0.3589	0.3198	0.3178	0.3421	0.3297	Ave		0.3280				6.3		15.0			
4-Methyl-2-pentanone (MIBK)	0.1423 0.1538	0.1486	0.1430	0.1525	0.1512	Ave		0.1486				3.3		15.0			
Toluene	1.4247 1.5718	1.4555	1.4684	1.5094	1.4540	Ave		1.4806				3.5		15.0			
trans-1,3-Dichloropropene	0.3439 0.4051	0.3727	0.3697	0.3854	0.3793	Ave		0.3760				5.4		15.0			
Ethyl methacrylate	0.2923 0.3233	0.2909	0.2973	0.3095	0.3102	Ave		0.3039				4.2		15.0			
1,1,2-Trichloroethane	0.2707 0.2654	0.2634	0.2612	0.2725	0.2605	Ave		0.2656				1.9		15.0			
1,3-Dichloropropane	0.4657 0.4872	0.4534	0.4672	0.4845	0.4670	Ave		0.4708				2.7		15.0			
Tetrachloroethene	0.2854 0.2886	0.2689	0.2748	0.2870	0.2778	Ave		0.2804				2.8		15.0			
2-Hexanone	0.1440 0.1445	0.1434	0.1447	0.1443	0.1474	Ave		0.1447				1.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.2611 0.3026	0.2588	0.2617	0.2728	0.2748	Ave		0.2720				6.0		15.0			
1,2-Dibromoethane	0.2394 0.2611	0.2528	0.2444	0.2649	0.2503	Ave		0.2521				3.8		15.0			
Chlorobenzene	0.9603 0.9689	0.9350	0.9438	0.9738	0.9128	Ave		0.9491			0.3000	2.4		15.0			
1,1,1,2-Tetrachloroethane	0.2861 0.3202	0.2998	0.2980	0.3138	0.2947	Ave		0.3021				4.2		15.0			
Ethylbenzene	0.4672 0.5352	0.5035	0.5112	0.5240	0.5046	Ave		0.5076				4.6		15.0			
m-Xylene & p-Xylene	0.5783 0.6653	0.6454	0.6325	0.6657	0.6261	Ave		0.6356				5.1		15.0			
o-Xylene	0.5843 0.6555	0.5765	0.6126	0.6501	0.6056	Ave		0.6141				5.3		15.0			
Styrene	0.9252 1.0625	0.9554	0.9576	1.0266	0.9787	Ave		0.9843				5.2		15.0			
Bromoform	0.1498 0.1896	0.1497	0.1590	0.1714	0.1748	Ave		0.1657			0.1000	9.5		15.0			
Isopropylbenzene	1.5435 1.7660	1.5369	1.5930	1.6826	1.6262	Ave		1.6247				5.4		15.0			
1,1,2,2-Tetrachloroethane	0.6061 0.5908	0.5888	0.5615	0.5956	0.5777	Ave		0.5868			0.3000	2.6		15.0			
Bromobenzene	0.7526 0.7383	0.7366	0.7011	0.7216	0.6869	Ave		0.7228				3.4		15.0			
1,2,3-Trichloropropane	0.1800 0.1810	0.1968	0.1757	0.1820	0.1785	Ave		0.1823				4.1		15.0			
trans-1,4-Dichloro-2-butene	0.1513 0.1508	0.1307	0.1391	0.1422	0.1464	Ave		0.1434				5.5		15.0			
N-Propylbenzene	0.7824 0.8278	0.7676	0.7975	0.7939	0.7805	Ave		0.7916				2.6		15.0			
2-Chlorotoluene	0.7373 0.6951	0.6650	0.6740	0.6840	0.6452	Ave		0.6834				4.6		15.0			
1,3,5-Trimethylbenzene	2.3143 2.5771	2.3696	2.3861	2.4000	2.3390	Ave		2.3977				3.9		15.0			
4-Chlorotoluene	0.7520 0.7364	0.7207	0.7475	0.7196	0.6860	Ave		0.7270				3.3		15.0			
tert-Butylbenzene	2.0967 2.2264	1.9952	2.0926	2.0850	2.0441	Ave		2.0900				3.7		15.0			
1,2,4-Trimethylbenzene	2.4434 2.6940	2.4789	2.4417	2.5599	2.4309	Ave		2.5081				4.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.0228 3.2181	2.8658	2.9969	3.0086	2.9700	Ave		3.0137				3.8		15.0			
1,3-Dichlorobenzene	1.4178 1.4588	1.4468	1.4062	1.4177	1.3387	Ave		1.4143				3.0		15.0			
p-Isopropyltoluene	2.6290 2.8568	2.5110	2.5616	2.6250	2.5941	Ave		2.6296				4.6		15.0			
1,4-Dichlorobenzene	1.5483 1.4920	1.4035	1.4295	1.4519	1.3664	Ave		1.4486				4.5		15.0			
n-Butylbenzene	2.0632 2.3894	2.1608	2.1481	2.2375	2.1731	Ave		2.1953				5.0		15.0			
1,2-Dichlorobenzene	1.3829 1.3600	1.3509	1.3013	1.3534	1.2795	Ave		1.3380				2.9		15.0			
1,2-Dibromo-3-Chloropropane	0.0879 0.1062	0.0925	0.0937	0.1035	0.1059	Ave		0.0983				8.0		15.0			
1,2,4-Trichlorobenzene	0.8049 0.8643	0.8367	0.8059	0.8563	0.8197	Ave		0.8313				3.1		15.0			
Hexachlorobutadiene	0.3756 0.3321	0.3394	0.3346	0.3519	0.3344	Ave		0.3447				4.9		15.0			
Naphthalene	1.7275 1.8957	1.7546	1.7541	1.8123	1.8417	Ave		1.7977				3.6		15.0			
1,2,3-Trichlorobenzene	0.7772 0.7381	0.7117	0.7428	0.7603	0.7300	Ave		0.7434				3.1		15.0			
Dibromofluoromethane (Surr)	0.2071 0.2051	0.2005	0.1961	0.1941	0.1965	Ave		0.1999				2.6		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2362 0.2240	0.2190	0.2141	0.2115	0.2138	Ave		0.2198				4.2		15.0			
Toluene-d8 (Surr)	1.1963 1.2683	1.1869	1.1733	1.1439	1.1943	Ave		1.1938				3.5		15.0			
4-Bromofluorobenzene (Surr)	0.4380 0.4362	0.4242	0.4298	0.4207	0.4229	Ave		0.4286				1.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-175603/7	UXM7071.D
Level 2	STD8260 240-175603/6	UXM7070.D
Level 3	STD8260 240-175603/5	UXM7069.D
Level 4	STD8260 240-175603/4	UXM7068.D
Level 5	STD8260 240-175603/3	UXM7067.D
Level 6	STD8260 240-175603/2	UXM7066.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	28917 1337941	55676	140857	242698	654342	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	39695 1668028	82030	205715	388184	776582	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	44743 1914766	87630	223994	399722	877355	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	39558 1742621	80915	200871	336247	826213	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	23786 832148	43161	103009	207068	403753	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	26576 1068302	53063	128633	245799	505635	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	59976 2377077	118360	282460	562834	1126131	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	37426 1721199	78305	185528	334848	816184	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	28439 1195543	57764	140678	285000	551195	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	16994 810121	36457	96810	166842	387150	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	31625 1391709	59936	161038	317431	641262	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	24378 1071088	44591	120932	254560	527554	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	22402 720650	40303	92528	177442	360826	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	50914 2097802	99607	251156	514079	954782	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	96908 4243718	193845	498244	956729	1930056	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	21041 935602	43357	108379	220761	422434	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	102515 4532585	206540	522740	1050530	2092779	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	55764 1575545	91345	205234	400235	732381	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butyl alcohol (TBA)	FB	Ave	20864 821282	41529	99599	196624	398073	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	106416 4762499	206234	527388	1119754	2227630	10.0 400	20.0	50.0	100	200
trans-1,2-Dichloroethene	FB	Ave	39000 1584112	79405	192169	378226	724105	1.00 40.0	2.00	5.00	10.0	20.0
Methyl tert-butyl ether	FB	Ave	90640 4043206	180473	473972	937984	1844898	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	8682 418195	15768	46020	93096	203111	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	63377 2687459	119780	312956	634661	1218029	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	24926 1110740	48645	124883	256374	505225	0.960 38.4	1.92	4.80	9.60	19.2
2-Butanone (MEK)	FB	Ave	23553 995821	46903	117472	235342	479775	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	39548 1744211	82689	205785	417073	779088	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	41868 1637169	77591	209114	402860	762113	1.00 40.0	2.00	5.00	10.0	20.0
Bromochloromethane	FB	Ave	19945 811318	36532	95005	197438	366316	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	16100 625734	31410	73033	144627	290335	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	59879 2598769	120340	319367	627339	1160076	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	45727 1982397	89274	240082	477408	911244	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	55140 2537686	102189	292014	577795	1238714	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	46457 2031242	94286	239308	461974	930586	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	35954 1690925	75098	192165	378785	776323	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	FB	Ave	17879 728819	35877	86934	168927	345672	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	39243 1830226	85876	218533	439901	829916	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	157136 6831596	307377	799946	1600731	3023331	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Lin1	64799 1008824	80485	158070	257320	535664	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	39145 1720443	78784	206338	406306	774022	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	59299 2677033	112582	302407	600527	1314375	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	33374 1558233	69884	186424	364937	691031	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	17545 820681	37594	95833	196259	374840	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Ave	4528 216590	10888	27293	53729	107755	20.0 800	40.0	100	200	400
Bromodichloromethane	FB	Ave	41017 1962005	85112	220994	453434	854238	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	33706 1691518	71924	188701	386667	774211	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	47246 2352543	99996	256701	529653	1032269	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	44881 2016114	92946	231016	472020	947026	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBZ	Ave	158809 7321596	327977	836157	1657841	3233786	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Ave	38332 1886900	83980	210531	423296	843701	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBZ	Ave	32579 1506095	65551	169293	339950	689972	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	30179 1236313	59363	148725	299335	579355	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	51904 2269203	102163	266053	532175	1038725	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBZ	Ave	31809 1344334	60595	156477	315179	617820	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBZ	Ave	32101 1345845	64637	164796	316954	655516	2.00 80.0	4.00	10.0	20.0	40.0
Dibromochloromethane	CBZ	Ave	29103 1409447	58315	149029	299624	611228	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	26687 1216021	56955	139164	290915	556631	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBZ	Ave	107038 4513086	210696	537400	1069581	2030052	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	31888 1491712	67561	169683	344706	655526	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBZ	Ave	52078 2492722	113464	291113	575507	1122373	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	64465 3099024	145431	360143	731190	1392483	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBZ	Ave	65124 3053079	129904	348841	714012	1346892	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBZ	Ave	103130 4949000	215294	545252	1127566	2176702	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBZ	Ave	16692 882996	33744	90533	188261	388875	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBZ	Ave	172044 8225855	346325	907101	1848075	3616868	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	36065 1553377	71837	179157	380619	739115	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCB	Ave	44780 1941323	89860	223701	461127	878811	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	10712 476037	24014	56075	116273	228346	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	9003 396411	15946	44369	90862	187283	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCB	Ave	46555 2176692	93650	254462	507345	998554	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCB	Ave	43871 1827779	81124	215043	437074	825480	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCB	Ave	137702 6776517	289090	761323	1533706	2992535	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCB	Ave	44743 1936347	87928	238520	459872	877636	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCB	Ave	124757 5854333	243411	667699	1332376	2615271	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCB	Ave	145383 7083933	302427	779068	1635840	3110140	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCB	Ave	179857 8462061	349623	956212	1922604	3799898	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	84359 3835946	176506	448685	905984	1712753	1.00 40.0	2.00	5.00	10.0	20.0
p-Isopropyltoluene	DCB	Ave	156428 7511918	306339	817341	1677489	3318892	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	92128 3923201	171223	456122	927811	1748229	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 12:59 Calibration End Date: 04/08/2015 14:53 Calibration ID: 27787

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	122761 6282819	263622	685404	1429823	2780296	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	82283 3576090	164804	415221	864865	1637059	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	5233 279200	11289	29908	66116	135520	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	47895 2272778	102074	257150	547207	1048708	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCB	Ave	22350 873236	41409	106764	224846	427869	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCB	Ave	102789 4984706	214063	559666	1158120	2356360	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Ave	46243 1940882	86828	237020	485845	933941	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	32663 1344293	62674	158433	300503	615314	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	37257 1468188	68480	172978	327407	669473	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	133342 5907752	267445	668083	1256422	2656188	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	48826 2031763	95592	244718	462107	940483	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 15:38 Calibration End Date: 04/08/2015 17:32 Calibration ID: 27790

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-175603/14	UXM7078.D
Level 2	STDA9 240-175603/13	UXM7077.D
Level 3	STDA9 240-175603/12	UXM7076.D
Level 4	STDA9 240-175603/11	UXM7075.D
Level 5	STDA9 240-175603/10	UXM7074.D
Level 6	STDA9 240-175603/9	UXM7073.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0201 0.0202	0.0206	0.0213	0.0192	0.0208	Ave		0.0204				3.6		15.0			
Diisopropyl ether	0.2070 0.2135	0.2081	0.2062	0.2076	0.2129	Ave		0.2092				1.5		15.0			
2-Chloro-1,3-butadiene	0.3249 0.3458	0.3198	0.3356	0.3307	0.3541	Ave		0.3352				3.8		15.0			
Ethyl t-butyl ether	0.6375 0.6867	0.6252	0.6588	0.6611	0.6812	Ave		0.6584				3.6		15.0			
Propionitrile	0.0225 0.0248	0.0230	0.0242	0.0244	0.0244	Ave		0.0239				3.9		15.0			
Ethyl acetate	0.0379 0.0349	0.0359	0.0347	0.0360	0.0339	Ave		0.0356				3.9		15.0			
Methacrylonitrile	0.1003 0.1146	0.1059	0.1089	0.1094	0.1118	Ave		0.1085				4.6		15.0			
Tert-amyl methyl ether	0.5768 0.6345	0.5743	0.6007	0.6004	0.6276	Ave		0.6024				4.1		15.0			
n-Butanol	0.0034 0.0036	0.0036	0.0034	0.0037	0.0037	Ave		0.0036				3.9		15.0			
Ethyl acrylate	0.1909 0.2007	0.1960	0.2030	0.1974	0.1923	Ave		0.1967				2.4		15.0			
Methyl methacrylate	0.1250 0.1436	0.1315	0.1382	0.1422	0.1389	Ave		0.1366				5.2		15.0			
2-Nitropropane	0.0340 0.0352	0.0329	0.0331	0.0323	0.0333	Ave		0.0335				3.0		15.0			
n-Butyl acetate	0.0799 0.0697	0.0726	0.0725	0.0708	0.0684	Ave		0.0723				5.6		15.0			
1-Chlorohexane	0.4038 0.4002	0.3988	0.3908	0.3894	0.4260	Ave		0.4015				3.3		15.0			
Cyclohexanone	0.0116 0.0113	0.0101	0.0116	0.0110	0.0112	Ave		0.0111				5.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 15:38 Calibration End Date: 04/08/2015 17:32 Calibration ID: 27790

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.0723 +++++	0.1519	0.1793	0.1681	0.1579	Lin1	-0.125	0.1691							0.9920		0.9900
1,2,3-Trimethylbenzene	2.3318 2.5694	2.3251	2.3451	2.3936	2.5896	Ave		2.4258				5.0		15.0			
Benzyl chloride	0.1301 0.2048	0.1395	0.1455	0.1590	0.1847	Lin1	-0.114	0.1961							0.9920		0.9900
1,3,5-Trichlorobenzene	0.9395 0.9590	0.9539	0.9519	0.9302	1.0065	Ave		0.9568				2.8		15.0			
2-Methylnaphthalene	0.7465 1.0413	0.8751	0.9278	0.9442	1.0796	Ave		0.9358				12.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 15:38 Calibration End Date: 04/08/2015 17:32 Calibration ID: 27790

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-175603/14	UXM7078.D
Level 2	STDA9 240-175603/13	UXM7077.D
Level 3	STDA9 240-175603/12	UXM7076.D
Level 4	STDA9 240-175603/11	UXM7075.D
Level 5	STDA9 240-175603/10	UXM7074.D
Level 6	STDA9 240-175603/9	UXM7073.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	31329 1294437	63371	162888	298995	652804	10.0 400	20.0	50.0	100	200
Diisopropyl ether	FB	Ave	32317 1369357	63881	157639	323560	667241	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	50735 2217558	98161	256551	515421	1109809	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl t-butyl ether	FB	Ave	99536 4404282	191887	503531	1030325	2135024	1.00 40.0	2.00	5.00	10.0	20.0
Propionitrile	FB	Ave	35090 1588548	70589	185269	380909	764544	10.0 400	20.0	50.0	100	200
Ethyl acetate	FB	Ave	11840 448178	22023	53078	112265	212735	2.00 80.0	4.00	10.0	20.0	40.0
Methacrylonitrile	FB	Ave	156628 7351496	325013	832510	1704360	3503202	10.0 400	20.0	50.0	100	200
Tert-amyl methyl ether	FB	Ave	90060 4069339	176260	459181	935660	1966775	1.00 40.0	2.00	5.00	10.0	20.0
n-Butanol	FB	Ave	13220 582085	27394	65229	143800	291344	25.0 1000	50.0	125	250	500
Ethyl acrylate	FB	Ave	29811 1286845	60147	155171	307621	602720	1.00 40.0	2.00	5.00	10.0	20.0
Methyl methacrylate	FB	Ave	39033 1842391	80696	211284	443334	870343	2.00 80.0	4.00	10.0	20.0	40.0
2-Nitropropane	FB	Ave	10602 451111	20214	50586	100635	208843	2.00 80.0	4.00	10.0	20.0	40.0
n-Butyl acetate	FB	Ave	12475 446986	22294	55387	110386	214210	1.00 40.0	2.00	5.00	10.0	20.0
1-Chlorohexane	CBZ	Ave	45448 1852425	87190	215498	440633	938391	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexanone	DCB	Ave	6736 281653	11853	34666	65966	137173	10.0 400	20.0	50.0	100	200
Pentachloroethane	CBZ	Lin1	16273 +++++	66422	197797	380443	695761	2.00 +++++	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 175603

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/08/2015 15:38 Calibration End Date: 04/08/2015 17:32 Calibration ID: 27790

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCB	Ave	135829 6395259	273876	702961	1431403	3163670	1.00 40.0	2.00	5.00	10.0	20.0
Benzyl chloride	DCB	Lin1	7576 509662	16429	43617	95070	225686	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trichlorobenzene	DCB	Ave	54726 2386927	112358	285343	556287	1229612	1.00 40.0	2.00	5.00	10.0	20.0
2-Methylnaphthalene	DCB	Ave	86971 5183589	206168	556244	1129317	2637867	2.00 80.0	4.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-175603/8 Calibration Date: 04/08/2015 15:15

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 12:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 14:53

Lab File ID: UXM7072.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1843	0.1350		0.00732	0.0100	-26.8	50.0
Chloromethane	Ave	0.2536	0.2176	0.1000	0.00858	0.0100	-14.2	50.0
Vinyl chloride	Ave	0.2786	0.2390		0.00858	0.0100	-14.2	20.0
Butadiene	Ave	0.2509	0.2177		0.00868	0.0100	-13.2	50.0
Bromomethane	Ave	0.1343	0.1103		0.00821	0.0100	-17.9	50.0
Chloroethane	Ave	0.1634	0.1452		0.00888	0.0100	-11.2	50.0
Dichlorofluoromethane	Ave	0.3657	0.3367		0.00921	0.0100	-7.9	50.0
Trichlorofluoromethane	Ave	0.2428	0.2383		0.00981	0.0100	-1.9	50.0
Ethyl ether	Ave	0.1803	0.1843		0.0102	0.0100	2.2	50.0
Acrolein	Ave	0.0233	0.0234		0.0502	0.0500	0.4	50.0
1,1-Dichloroethene	Ave	0.2023	0.2097		0.0104	0.0100	3.7	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.1572	0.1622		0.0103	0.0100	3.2	50.0
Acetone	Ave	0.0604	0.0585		0.0194	0.0200	-3.2	50.0
Iodomethane	Ave	0.3182	0.3423		0.0108	0.0100	7.6	50.0
Carbon disulfide	Ave	0.6221	0.6706		0.0108	0.0100	7.8	50.0
3-Chloro-1-propene	Ave	0.1377	0.1290		0.00937	0.0100	-6.3	50.0
Methyl acetate	Ave	0.1332	0.1374		0.0516	0.0500	3.2	50.0
Methylene Chloride	Lin1		0.2585		0.0105	0.0100	4.7	50.0
tert-Butyl alcohol (TBA)	Ave	0.0128	0.0123		0.0964	0.100	-3.6	50.0
Acrylonitrile	Ave	0.0691	0.0686		0.0993	0.100	-0.7	50.0
Methyl tert-butyl ether	Ave	0.5917	0.6062		0.0102	0.0100	2.4	50.0
trans-1,2-Dichloroethene	Ave	0.2427	0.2420		0.00997	0.0100	-0.3	50.0
Hexane	Ave	0.0585	0.0671		0.0115	0.0100	14.6	20.0
1,1-Dichloroethane	Ave	0.3969	0.4158	0.1000	0.0105	0.0100	4.8	50.0
Vinyl acetate	Ave	0.1675	0.1183		0.00706	0.0100	-29.4	50.0
2-Butanone (MEK)	Ave	0.0752	0.0759		0.0202	0.0200	0.9	50.0
cis-1,2-Dichloroethene	Ave	0.2590	0.2616		0.0101	0.0100	1.0	50.0
2,2-Dichloropropane	Ave	0.2543	0.2481		0.00976	0.0100	-2.4	50.0
Bromochloromethane	Ave	0.1215	0.1212		0.00998	0.0100	-0.2	50.0
Tetrahydrofuran	Ave	0.0479	0.0448		0.0187	0.0200	-6.5	50.0
Chloroform	Ave	0.3887	0.3881		0.00999	0.0100	-0.1	20.0
1,1,1-Trichloroethane	Ave	0.2957	0.3004		0.0102	0.0100	1.6	50.0
Cyclohexane	Ave	0.3656	0.3762		0.0103	0.0100	2.9	50.0
1,1-Dichloropropene	Ave	0.2996	0.3204		0.0107	0.0100	6.9	50.0
Carbon tetrachloride	Ave	0.2428	0.2510		0.0103	0.0100	3.4	50.0
Isobutyl alcohol	Ave	0.0044	0.0040		0.223	0.250	-10.9	50.0
1,2-Dichloroethane	Ave	0.2704	0.2706		0.0100	0.0100	0.0	50.0
Benzene	Ave	1.002	0.9932		0.00991	0.0100	-0.9	50.0
n-Heptane	Lin1		0.1733		0.00994	0.0100	-0.6	50.0
Trichloroethene	Ave	0.2546	0.2585		0.0102	0.0100	1.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-175603/8 Calibration Date: 04/08/2015 15:15

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 12:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 14:53

Lab File ID: UXM7072.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3877	0.3879		0.0100	0.0100	0.0	50.0
1,2-Dichloropropane	Ave	0.2267	0.2249		0.00992	0.0100	-0.8	20.0
Dibromomethane	Ave	0.1203	0.1212		0.0101	0.0100	0.7	50.0
1,4-Dioxane	Ave	0.0017	0.0016		0.193	0.200	-3.3	50.0
Bromodichloromethane	Ave	0.2785	0.2746		0.00986	0.0100	-1.4	50.0
2-Chloroethyl vinyl ether	Ave	0.1194	0.1182		0.0119	0.0120	-1.0	50.0
cis-1,3-Dichloropropene	Ave	0.3280	0.3388		0.0103	0.0100	3.3	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1486	0.1470		0.0198	0.0200	-1.0	50.0
Toluene	Ave	1.481	1.477		0.00998	0.0100	-0.2	20.0
trans-1,3-Dichloropropene	Ave	0.3760	0.4124		0.0110	0.0100	9.7	50.0
Ethyl methacrylate	Ave	0.3039	0.3135		0.0103	0.0100	3.1	50.0
1,1,2-Trichloroethane	Ave	0.2656	0.2559		0.00964	0.0100	-3.6	50.0
1,3-Dichloropropane	Ave	0.4708	0.4586		0.00974	0.0100	-2.6	50.0
Tetrachloroethene	Ave	0.2804	0.2884		0.0103	0.0100	2.8	50.0
2-Hexanone	Ave	0.1447	0.1415		0.0196	0.0200	-2.2	50.0
Dibromochloromethane	Ave	0.2720	0.2725		0.0100	0.0100	0.2	50.0
1,2-Dibromoethane	Ave	0.2521	0.2526		0.0100	0.0100	0.2	50.0
Chlorobenzene	Ave	0.9491	0.9260	0.3000	0.00976	0.0100	-2.4	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3021	0.2978		0.00986	0.0100	-1.4	50.0
Ethylbenzene	Ave	0.5076	0.5078		0.0100	0.0100	0.0	20.0
m-Xylene & p-Xylene	Ave	0.6356	0.6337		0.00997	0.0100	-0.3	50.0
o-Xylene	Ave	0.6141	0.6176		0.0101	0.0100	0.6	50.0
Styrene	Ave	0.9843	0.9112		0.00926	0.0100	-7.4	50.0
Bromoform	Ave	0.1657	0.1625	0.1000	0.00980	0.0100	-2.0	50.0
Isopropylbenzene	Ave	1.625	1.596		0.00982	0.0100	-1.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5868	0.5613	0.3000	0.00957	0.0100	-4.3	50.0
Bromobenzene	Ave	0.7228	0.7188		0.00994	0.0100	-0.6	50.0
1,2,3-Trichloropropane	Ave	0.1823	0.1767		0.00969	0.0100	-3.1	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1434	0.1424		0.00993	0.0100	-0.7	50.0
N-Propylbenzene	Ave	0.7916	0.7835		0.00990	0.0100	-1.0	50.0
2-Chlorotoluene	Ave	0.6834	0.6608		0.00967	0.0100	-3.3	50.0
1,3,5-Trimethylbenzene	Ave	2.398	2.370		0.00988	0.0100	-1.2	50.0
4-Chlorotoluene	Ave	0.7270	0.7015		0.00965	0.0100	-3.5	50.0
tert-Butylbenzene	Ave	2.090	2.047		0.00979	0.0100	-2.1	50.0
1,2,4-Trimethylbenzene	Ave	2.508	2.394		0.00955	0.0100	-4.5	50.0
sec-Butylbenzene	Ave	3.014	2.877		0.00955	0.0100	-4.5	50.0
1,3-Dichlorobenzene	Ave	1.414	1.377		0.00973	0.0100	-2.7	50.0
p-Isopropyltoluene	Ave	2.630	2.507		0.00953	0.0100	-4.7	50.0
1,4-Dichlorobenzene	Ave	1.449	1.383		0.00955	0.0100	-4.5	50.0
n-Butylbenzene	Ave	2.195	2.110		0.00961	0.0100	-3.9	50.0
1,2-Dichlorobenzene	Ave	1.338	1.298		0.00970	0.0100	-3.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-175603/8 Calibration Date: 04/08/2015 15:15

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 12:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 14:53

Lab File ID: UXM7072.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0983	0.0971		0.00988	0.0100	-1.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8313	0.7795		0.00938	0.0100	-6.2	50.0
Hexachlorobutadiene	Ave	0.3447	0.3112		0.00903	0.0100	-9.7	50.0
Naphthalene	Ave	1.798	1.712		0.00952	0.0100	-4.8	50.0
1,2,3-Trichlorobenzene	Ave	0.7434	0.6967		0.00937	0.0100	-6.3	50.0
Dibromofluoromethane (Surr)	Ave	0.1999	0.1881		0.0107	0.0114	-5.9	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2198	0.2021		0.0105	0.0114	-8.0	50.0
Toluene-d8 (Surr)	Ave	1.194	1.143		0.0109	0.0114	-4.2	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4286	0.4226		0.0112	0.0114	-1.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-175603/15 Calibration Date: 04/08/2015 17:55

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 15:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 17:32

Lab File ID: UXM7079.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0204	0.0215		0.106	0.100	5.6	50.0
Diisopropyl ether	Ave	0.2092	0.2219		0.0106	0.0100	6.1	50.0
2-Chloro-1,3-butadiene	Ave	0.3352	0.3507		0.0105	0.0100	4.6	50.0
Ethyl t-butyl ether	Ave	0.6584	0.6808		0.0103	0.0100	3.4	50.0
Propionitrile	Ave	0.0239	0.0258		0.108	0.100	8.0	50.0
Ethyl acetate	Ave	0.0356	0.0814		0.0458	0.0200	128.9*	50.0
Methacrylonitrile	Ave	0.1085	0.1159		0.107	0.100	6.8	50.0
Tert-amyl methyl ether	Ave	0.6024	0.6284		0.0104	0.0100	4.3	50.0
n-Butanol	Ave	0.0036	0.0040		0.282	0.250	12.7	50.0
Ethyl acrylate	Ave	0.1967	0.2111		0.0107	0.0100	7.3	50.0
Methyl methacrylate	Ave	0.1366	0.1463		0.0214	0.0200	7.1	50.0
2-Nitropropane	Ave	0.0335	0.0326		0.0195	0.0200	-2.6	50.0
n-Butyl acetate	Ave	0.0723	0.1294		1.00	0.0100	78.9*	50.0
1-Chlorohexane	Ave	0.4015	0.4114		0.0102	0.0100	2.5	50.0
Cyclohexanone	Ave	0.0111	0.0116		0.104	0.100	4.3	50.0
Pentachloroethane	Lin1		0.0721		0.00927	0.0200	-53.7*	50.0
1,2,3-Trimethylbenzene	Ave	2.426	2.501		0.0103	0.0100	3.1	50.0
Benzyl chloride	Lin1		0.1514		0.00830	0.0100	-17.0	50.0
1,3,5-Trichlorobenzene	Ave	0.9568	0.9508		0.00994	0.0100	-0.6	50.0
2-Methylnaphthalene	Ave	0.9358	0.9242		0.0198	0.0200	-1.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVIS 240-175730/2 Calibration Date: 04/09/2015 10:35

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 12:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 14:53

Lab File ID: UXM7081.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1843	0.2112		0.0115	0.0100	14.6	50.0
Chloromethane	Ave	0.2536	0.2626	0.1000	0.0104	0.0100	3.5	50.0
Vinyl chloride	Ave	0.2786	0.2895		0.0104	0.0100	3.9	20.0
Butadiene	Ave	0.2509	0.2678		0.0107	0.0100	6.7	50.0
Bromomethane	Ave	0.1343	0.1424		0.0106	0.0100	6.0	50.0
Chloroethane	Ave	0.1634	0.1715		0.0105	0.0100	4.9	50.0
Dichlorofluoromethane	Ave	0.3657	0.3834		0.0105	0.0100	4.8	50.0
Trichlorofluoromethane	Ave	0.2428	0.2797		0.0115	0.0100	15.2	50.0
Ethyl ether	Ave	0.1803	0.1805		0.0100	0.0100	0.1	50.0
Acrolein	Ave	0.0233	0.0230		0.0492	0.0500	-1.5	50.0
1,1-Dichloroethene	Ave	0.2023	0.2099		0.0104	0.0100	3.8	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.1572	0.1775		0.0113	0.0100	12.9	50.0
Acetone	Ave	0.0604	0.0567		0.0188	0.0200	-6.1	50.0
Iodomethane	Ave	0.3182	0.3232		0.0102	0.0100	1.6	50.0
Carbon disulfide	Ave	0.6221	0.6142		0.00987	0.0100	-1.3	50.0
3-Chloro-1-propene	Ave	0.1377	0.1413		0.0103	0.0100	2.6	50.0
Methyl acetate	Ave	0.1332	0.1352		0.0508	0.0500	1.5	50.0
Methylene Chloride	Lin1		0.2525		0.0102	0.0100	2.2	50.0
tert-Butyl alcohol (TBA)	Ave	0.0128	0.0134		0.105	0.100	4.5	50.0
Acrylonitrile	Ave	0.0691	0.0699		0.101	0.100	1.1	50.0
Methyl tert-butyl ether	Ave	0.5917	0.6070		0.0103	0.0100	2.6	50.0
trans-1,2-Dichloroethene	Ave	0.2427	0.2441		0.0101	0.0100	0.6	50.0
Hexane	Ave	0.0585	0.0639		0.0109	0.0100	9.1	20.0
1,1-Dichloroethane	Ave	0.3969	0.4110	0.1000	0.0104	0.0100	3.5	50.0
Vinyl acetate	Ave	0.1675	0.1633		0.00936	0.00960	-2.5	50.0
2,2-Dichloropropane	Ave	0.2543	0.2688		0.0106	0.0100	5.7	50.0
2-Butanone (MEK)	Ave	0.0752	0.0742		0.0197	0.0200	-1.3	50.0
cis-1,2-Dichloroethene	Ave	0.2590	0.2641		0.0102	0.0100	2.0	50.0
Bromochloromethane	Ave	0.1215	0.1239		0.0102	0.0100	2.0	50.0
Tetrahydrofuran	Ave	0.0479	0.0472		0.0197	0.0200	-1.3	50.0
Chloroform	Ave	0.3887	0.3974		0.0102	0.0100	2.2	20.0
1,1,1-Trichloroethane	Ave	0.2957	0.3095		0.0105	0.0100	4.6	50.0
Cyclohexane	Ave	0.3656	0.3956		0.0108	0.0100	8.2	50.0
1,1-Dichloropropene	Ave	0.2996	0.3171		0.0106	0.0100	5.8	50.0
Carbon tetrachloride	Ave	0.2428	0.2629		0.0108	0.0100	8.3	50.0
Isobutyl alcohol	Ave	0.0044	0.0042		0.237	0.250	-5.0	50.0
1,2-Dichloroethane	Ave	0.2704	0.2764		0.0102	0.0100	2.2	50.0
Benzene	Ave	1.002	0.997		0.00995	0.0100	-0.5	50.0
n-Heptane	Lin1		0.1782		0.0103	0.0100	2.7	50.0
Trichloroethene	Ave	0.2546	0.2663		0.0105	0.0100	4.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVIS 240-175730/2 Calibration Date: 04/09/2015 10:35

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 12:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 14:53

Lab File ID: UXM7081.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3877	0.4096		0.0106	0.0100	5.6	50.0
1,2-Dichloropropane	Ave	0.2267	0.2312		0.0102	0.0100	2.0	20.0
Dibromomethane	Ave	0.1203	0.1227		0.0102	0.0100	2.0	50.0
1,4-Dioxane	Ave	0.0017	0.0017		0.206	0.200	3.0	50.0
Bromodichloromethane	Ave	0.2785	0.2888		0.0104	0.0100	3.7	50.0
2-Chloroethyl vinyl ether	Ave	0.1194	0.1225		0.0205	0.0200	2.6	50.0
cis-1,3-Dichloropropene	Ave	0.3280	0.3398		0.0104	0.0100	3.6	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1486	0.1553		0.0209	0.0200	4.5	50.0
Toluene	Ave	1.481	1.495		0.0101	0.0100	1.0	20.0
trans-1,3-Dichloropropene	Ave	0.3760	0.3855		0.0103	0.0100	2.5	50.0
Ethyl methacrylate	Ave	0.3039	0.3097		0.0102	0.0100	1.9	50.0
1,1,2-Trichloroethane	Ave	0.2656	0.2650		0.00997	0.0100	-0.3	50.0
1,3-Dichloropropane	Ave	0.4708	0.4686		0.00995	0.0100	-0.5	50.0
Tetrachloroethene	Ave	0.2804	0.3012		0.0107	0.0100	7.4	50.0
2-Hexanone	Ave	0.1447	0.1442		0.0199	0.0200	-0.4	50.0
Dibromochloromethane	Ave	0.2720	0.2814		0.0103	0.0100	3.5	50.0
1,2-Dibromoethane	Ave	0.2521	0.2574		0.0102	0.0100	2.1	50.0
Chlorobenzene	Ave	0.9491	0.9572	0.3000	0.0101	0.0100	0.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3021	0.3137		0.0104	0.0100	3.8	50.0
Ethylbenzene	Ave	0.5076	0.5328		0.0105	0.0100	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6356	0.6420		0.0101	0.0100	1.0	50.0
o-Xylene	Ave	0.6141	0.6456		0.0105	0.0100	5.1	50.0
Styrene	Ave	0.9843	1.002		0.0102	0.0100	1.8	50.0
Bromoform	Ave	0.1657	0.1715	0.1000	0.0103	0.0100	3.5	50.0
Isopropylbenzene	Ave	1.625	1.660		0.0102	0.0100	2.2	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5868	0.5612	0.3000	0.00956	0.0100	-4.4	50.0
Bromobenzene	Ave	0.7228	0.7150		0.00989	0.0100	-1.1	50.0
1,2,3-Trichloropropane	Ave	0.1823	0.1821		0.00999	0.0100	-0.1	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1434	0.1426		0.00995	0.0100	-0.5	50.0
N-Propylbenzene	Ave	0.7916	0.8255		0.0104	0.0100	4.3	50.0
2-Chlorotoluene	Ave	0.6834	0.6865		0.0100	0.0100	0.4	50.0
1,3,5-Trimethylbenzene	Ave	2.398	2.433		0.0101	0.0100	1.5	50.0
4-Chlorotoluene	Ave	0.7270	0.7362		0.0101	0.0100	1.3	50.0
tert-Butylbenzene	Ave	2.090	2.147		0.0103	0.0100	2.7	50.0
1,2,4-Trimethylbenzene	Ave	2.508	2.522		0.0101	0.0100	0.6	50.0
sec-Butylbenzene	Ave	3.014	3.042		0.0101	0.0100	0.9	50.0
1,3-Dichlorobenzene	Ave	1.414	1.410		0.00997	0.0100	-0.3	50.0
p-Isopropyltoluene	Ave	2.630	2.678		0.0102	0.0100	1.8	50.0
1,4-Dichlorobenzene	Ave	1.449	1.436		0.00992	0.0100	-0.8	50.0
n-Butylbenzene	Ave	2.195	2.231		0.0102	0.0100	1.6	50.0
1,2-Dichlorobenzene	Ave	1.338	1.329		0.00993	0.0100	-0.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVIS 240-175730/2 Calibration Date: 04/09/2015 10:35

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 12:59

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 14:53

Lab File ID: UXM7081.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0983	0.1020		0.0104	0.0100	3.8	50.0
1,2,4-Trichlorobenzene	Ave	0.8313	0.8303		0.00999	0.0100	-0.1	50.0
Hexachlorobutadiene	Ave	0.3447	0.3461		0.0100	0.0100	0.4	50.0
Naphthalene	Ave	1.798	1.737		0.00966	0.0100	-3.4	50.0
1,2,3-Trichlorobenzene	Ave	0.7434	0.7265		0.00977	0.0100	-2.3	50.0
Dibromofluoromethane (Surr)	Ave	0.1999	0.1914		0.0109	0.0114	-4.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2198	0.2072		0.0107	0.0114	-5.7	50.0
Toluene-d8 (Surr)	Ave	1.194	1.151		0.0110	0.0114	-3.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4286	0.4295		0.0114	0.0114	0.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175730/3 Calibration Date: 04/09/2015 10:57

Instrument ID: A3UX16 Calib Start Date: 04/08/2015 15:38

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/08/2015 17:32

Lab File ID: UXM7082.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0204	0.0198		0.0974	0.100	-2.6	50.0
Diisopropyl ether	Ave	0.2092	0.2109		0.0101	0.0100	0.8	50.0
2-Chloro-1,3-butadiene	Ave	0.3352	0.3545		0.0106	0.0100	5.8	50.0
Ethyl t-butyl ether	Ave	0.6584	0.6717		0.0102	0.0100	2.0	50.0
Propionitrile	Ave	0.0239	0.0246		0.103	0.100	3.0	50.0
Ethyl acetate	Ave	0.0356	0.0357		0.0201	0.0200	0.3	50.0
Methacrylonitrile	Ave	0.1085	0.1098		0.101	0.100	1.2	50.0
Tert-amyl methyl ether	Ave	0.6024	0.6211		0.0103	0.0100	3.1	50.0
n-Butanol	Ave	0.0036	0.0035		0.246	0.250	-1.7	50.0
Ethyl acrylate	Ave	0.1967	0.1895		0.00963	0.0100	-3.7	50.0
Methyl methacrylate	Ave	0.1366	0.1416		0.0207	0.0200	3.7	50.0
2-Nitropropane	Ave	0.0335	0.0325		0.0194	0.0200	-2.9	50.0
n-Butyl acetate	Ave	0.0723	0.0702		1.00	0.0100	-2.9	50.0
1-Chlorohexane	Ave	0.4015	0.4288		0.0107	0.0100	6.8	50.0
Cyclohexanone	Ave	0.0111	0.0104		0.0936	0.100	-6.4	50.0
Pentachloroethane	Lin1		0.2066		0.0252	0.0200	25.9	50.0
1,2,3-Trimethylbenzene	Ave	2.426	2.464		0.0102	0.0100	1.6	50.0
Benzyl chloride	Lin1		0.1803		0.00977	0.0100	-2.3	50.0
1,3,5-Trichlorobenzene	Ave	0.9568	0.9569		0.0100	0.0100	0.0	50.0
2-Methylnaphthalene	Ave	0.9358	0.8195		0.0175	0.0200	-12.4	50.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175730/6

Matrix: Water | Lab File ID: UXM7085.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	1.0	0.28
71-55-6	1,1,1-Trichloroethane	0.44	U	1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.45	U	1.0	0.45
75-34-3	1,1-Dichloroethane	0.30	U	1.0	0.30
75-35-4	1,1-Dichloroethene	0.45	U	1.0	0.45
563-58-6	1,1-Dichloropropene	0.42	U	1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	0.37	U	1.0	0.37
96-18-4	1,2,3-Trichloropropane	0.44	U	1.0	0.44
526-73-8	1,2,3-Trimethylbenzene	0.47	U	5.0	0.47
120-82-1	1,2,4-Trichlorobenzene	0.32	U	1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	0.41	U	1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	0.82	U	2.0	0.82
95-50-1	1,2-Dichlorobenzene	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.23	U	1.0	0.23
78-87-5	1,2-Dichloropropane	0.25	U	1.0	0.25
541-73-1	1,3-Dichlorobenzene	0.19	U	1.0	0.19
142-28-9	1,3-Dichloropropane	0.19	U	1.0	0.19
106-46-7	1,4-Dichlorobenzene	0.27	U	1.0	0.27
594-20-7	2,2-Dichloropropane	0.26	U	1.0	0.26
110-75-8	2-Chloroethyl vinyl ether	0.59	U	10	0.59
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40
591-78-6	2-Hexanone	0.48	U	10	0.48
108-86-1	Bromobenzene	0.35	U	1.0	0.35
74-97-5	Bromochloromethane	0.50	U	1.0	0.50
106-43-4	4-Chlorotoluene	0.29	U	1.0	0.29
99-87-6	p-Isopropyltoluene	0.43	U	1.0	0.43
67-64-1	Acetone	1.64	J	10	0.94
71-43-2	Benzene	0.35	U	1.0	0.35
75-25-2	Bromoform	0.56	U	1.0	0.56
74-83-9	Bromomethane	0.44	U	1.0	0.44
75-15-0	Carbon disulfide	0.38	U	1.0	0.38
56-23-5	Carbon tetrachloride	0.43	U	1.0	0.43
108-90-7	Chlorobenzene	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175730/6

Matrix: Water | Lab File ID: UXM7085.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.25	U	1.0	0.25
74-87-3	Chloromethane	0.44	U	1.0	0.44
156-59-2	cis-1,2-Dichloroethene	0.26	U	1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	0.46	U	1.0	0.46
87-68-3	Hexachlorobutadiene	0.35	U	1.0	0.35
74-95-3	Dibromomethane	0.42	U	1.0	0.42
75-27-4	Bromodichloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.32	U	1.0	0.32
100-41-4	Ethylbenzene	0.25	U	1.0	0.25
106-93-4	1,2-Dibromoethane	0.32	U	1.0	0.32
108-20-3	Diisopropyl ether	0.50	U	10	0.50
91-20-3	Naphthalene	0.45	U	1.0	0.45
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
104-51-8	n-Butylbenzene	0.31	U	1.0	0.31
98-82-8	Isopropylbenzene	0.35	U	1.0	0.35
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40
78-93-3	2-Butanone (MEK)	0.53	U	10	0.53
108-10-1	4-Methyl-2-pentanone (MIBK)	0.99	U	10	0.99
135-98-8	sec-Butylbenzene	0.48	U	1.0	0.48
1634-04-4	Methyl tert-butyl ether	0.20	U	1.0	0.20
994-05-8	Tert-amyl methyl ether	0.30	U	5.0	0.30
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
95-47-6	o-Xylene	0.25	U	1.0	0.25
100-42-5	Styrene	0.45	U	1.0	0.45
637-92-3	Ethyl t-butyl ether	0.23	U	5.0	0.23
98-06-6	tert-Butylbenzene	0.41	U	1.0	0.41
127-18-4	Tetrachloroethene	0.31	U	1.0	0.31
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	0.56	U	1.0	0.56
79-01-6	Trichloroethene	0.22	U	1.0	0.22
75-69-4	Trichlorofluoromethane	0.49	U	1.0	0.49
108-05-4	Vinyl acetate	0.41	U	2.0	0.41
75-01-4	Vinyl chloride	0.29	U	1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	4.9	U	50	4.9
1330-20-7	Xylenes, Total	0.52	U	2.0	0.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-175730/6

Matrix: Water Lab File ID: UXM7085.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2015 12:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175730 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.43	U	1.0	0.43

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-120
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	93		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175730/4

Matrix: Water Lab File ID: UXM7083.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2015 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175730 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	10.1		1.0	0.28
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	9.71		1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	11.0		1.0	0.45
75-34-3	1,1-Dichloroethane	10.5		1.0	0.30
75-35-4	1,1-Dichloroethene	10.7		1.0	0.45
563-58-6	1,1-Dichloropropene	10.8		1.0	0.42
87-61-6	1,2,3-Trichlorobenzene	9.59		1.0	0.37
96-18-4	1,2,3-Trichloropropane	10.2		1.0	0.44
120-82-1	1,2,4-Trichlorobenzene	9.73		1.0	0.32
95-63-6	1,2,4-Trimethylbenzene	9.75		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	10.2		2.0	0.82
95-50-1	1,2-Dichlorobenzene	9.77		1.0	0.25
107-06-2	1,2-Dichloroethane	10.4		1.0	0.23
78-87-5	1,2-Dichloropropane	10.1		1.0	0.25
541-73-1	1,3-Dichlorobenzene	9.82		1.0	0.19
142-28-9	1,3-Dichloropropane	9.62		1.0	0.19
106-46-7	1,4-Dichlorobenzene	9.90		1.0	0.27
594-20-7	2,2-Dichloropropane	10.2		1.0	0.26
110-75-8	2-Chloroethyl vinyl ether	12.4		10	0.59
95-49-8	2-Chlorotoluene	10.1		1.0	0.40
591-78-6	2-Hexanone	19.2		10	0.48
108-86-1	Bromobenzene	10.1		1.0	0.35
74-97-5	Bromochloromethane	9.90		1.0	0.50
106-43-4	4-Chlorotoluene	9.62		1.0	0.29
99-87-6	p-Isopropyltoluene	9.88		1.0	0.43
67-64-1	Acetone	17.4		10	0.94
71-43-2	Benzene	10.1		1.0	0.35
75-25-2	Bromoform	9.74		1.0	0.56
74-83-9	Bromomethane	8.58		1.0	0.44
75-15-0	Carbon disulfide	10.9		1.0	0.38
56-23-5	Carbon tetrachloride	10.8		1.0	0.43
108-90-7	Chlorobenzene	9.79		1.0	0.25
75-00-3	Chloroethane	8.70		1.0	0.32
67-66-3	Chloroform	10.1		1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-175730/4

Matrix: Water | Lab File ID: UXM7083.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 11:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.18		1.0	0.44
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.46
87-68-3	Hexachlorobutadiene	9.48		1.0	0.35
74-95-3	Dibromomethane	10.2		1.0	0.42
75-27-4	Bromodichloromethane	9.81		1.0	0.29
75-71-8	Dichlorodifluoromethane	7.10		1.0	0.32
100-41-4	Ethylbenzene	10.1		1.0	0.25
106-93-4	1,2-Dibromoethane	10.0		1.0	0.32
91-20-3	Naphthalene	9.44		1.0	0.45
179601-23-1	m-Xylene & p-Xylene	9.83		2.0	0.24
104-51-8	n-Butylbenzene	9.90		1.0	0.31
98-82-8	Isopropylbenzene	9.91		1.0	0.35
103-65-1	N-Propylbenzene	10.3		1.0	0.40
78-93-3	2-Butanone (MEK)	19.9		10	0.53
108-10-1	4-Methyl-2-pentanone (MIBK)	20.1		10	0.99
135-98-8	sec-Butylbenzene	9.99		1.0	0.48
1634-04-4	Methyl tert-butyl ether	10.3		1.0	0.20
75-09-2	Methylene Chloride	10.5		1.0	0.33
95-47-6	o-Xylene	10.1		1.0	0.25
100-42-5	Styrene	9.36		1.0	0.45
98-06-6	tert-Butylbenzene	10.1		1.0	0.41
127-18-4	Tetrachloroethene	10.1		1.0	0.31
108-88-3	Toluene	10.0		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	10.6		1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	10.8		1.0	0.56
79-01-6	Trichloroethene	10.4		1.0	0.22
75-69-4	Trichlorofluoromethane	10.0		1.0	0.49
108-05-4	Vinyl acetate	7.85		2.0	0.41
75-01-4	Vinyl chloride	8.68		1.0	0.29
75-65-0	tert-Butyl alcohol (TBA)	95.3		50	4.9
1330-20-7	Xylenes, Total	19.9		2.0	0.52
124-48-1	Dibromochloromethane	10.0		1.0	0.43

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175730/4

Matrix: Water Lab File ID: UXM7083.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2015 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175730 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	98		66-120
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-49022-A-1 MS

Matrix: Water | Lab File ID: UXM7106.D

Analysis Method: 8260B | Date Collected: 04/06/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 20:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	9.52		1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	9.34		1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.50		1.0	0.45
75-34-3	1,1-Dichloroethane	9.95		1.0	0.30
75-35-4	1,1-Dichloroethene	9.80		1.0	0.45
120-82-1	1,2,4-Trichlorobenzene	7.42		1.0	0.32
96-12-8	1,2-Dibromo-3-Chloropropane	9.35		2.0	0.82
95-50-1	1,2-Dichlorobenzene	8.31		1.0	0.25
107-06-2	1,2-Dichloroethane	9.78		1.0	0.23
78-87-5	1,2-Dichloropropane	9.42		1.0	0.25
541-73-1	1,3-Dichlorobenzene	7.90		1.0	0.19
106-46-7	1,4-Dichlorobenzene	7.99		1.0	0.27
591-78-6	2-Hexanone	18.8		10	0.48
67-64-1	Acetone	16.6		10	0.94
71-43-2	Benzene	9.51		1.0	0.35
75-25-2	Bromoform	8.57		1.0	0.56
74-83-9	Bromomethane	8.15		1.0	0.44
75-15-0	Carbon disulfide	9.72		1.0	0.38
56-23-5	Carbon tetrachloride	9.81		1.0	0.43
108-90-7	Chlorobenzene	8.56		1.0	0.25
75-00-3	Chloroethane	8.31		1.0	0.32
67-66-3	Chloroform	9.50		1.0	0.25
74-87-3	Chloromethane	8.01		1.0	0.44
156-59-2	cis-1,2-Dichloroethene	9.51		1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	9.20		1.0	0.46
75-27-4	Bromodichloromethane	9.04		1.0	0.29
75-71-8	Dichlorodifluoromethane	6.26		1.0	0.32
100-41-4	Ethylbenzene	8.69		1.0	0.25
106-93-4	1,2-Dibromoethane	9.49		1.0	0.32
179601-23-1	m-Xylene & p-Xylene	8.48		2.0	0.24
98-82-8	Isopropylbenzene	8.31		1.0	0.35
78-93-3	2-Butanone (MEK)	18.6		10	0.53
108-10-1	4-Methyl-2-pentanone (MIBK)	20.6		10	0.99
1634-04-4	Methyl tert-butyl ether	10.1		1.0	0.20
75-09-2	Methylene Chloride	9.26		1.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-49022-A-1 MS

Matrix: Water | Lab File ID: UXM7106.D

Analysis Method: 8260B | Date Collected: 04/06/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 20:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-47-6	o-Xylene	8.84		1.0	0.25
100-42-5	Styrene	7.49		1.0	0.45
127-18-4	Tetrachloroethene	8.67		1.0	0.31
108-88-3	Toluene	9.03		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	9.38		1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	9.63		1.0	0.56
79-01-6	Trichloroethene	9.24		1.0	0.22
75-69-4	Trichlorofluoromethane	8.96		1.0	0.49
75-01-4	Vinyl chloride	8.04		1.0	0.29
1330-20-7	Xylenes, Total	17.3		2.0	0.52
124-48-1	Dibromochloromethane	9.03		1.0	0.43

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129
460-00-4	4-Bromofluorobenzene (Surr)	99		66-120
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-49022-D-1 MSD

Matrix: Water | Lab File ID: UXM7107.D

Analysis Method: 8260B | Date Collected: 04/06/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 20:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	9.46		1.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	9.21		1.0	0.22
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10.3		1.0	0.45
75-34-3	1,1-Dichloroethane	10.0		1.0	0.30
75-35-4	1,1-Dichloroethene	9.82		1.0	0.45
120-82-1	1,2,4-Trichlorobenzene	8.11		1.0	0.32
96-12-8	1,2-Dibromo-3-Chloropropane	9.10		2.0	0.82
95-50-1	1,2-Dichlorobenzene	8.43		1.0	0.25
107-06-2	1,2-Dichloroethane	9.68		1.0	0.23
78-87-5	1,2-Dichloropropane	9.38		1.0	0.25
541-73-1	1,3-Dichlorobenzene	8.32		1.0	0.19
106-46-7	1,4-Dichlorobenzene	8.34		1.0	0.27
591-78-6	2-Hexanone	19.9		10	0.48
67-64-1	Acetone	17.0		10	0.94
71-43-2	Benzene	9.43		1.0	0.35
75-25-2	Bromoform	8.66		1.0	0.56
74-83-9	Bromomethane	9.27		1.0	0.44
75-15-0	Carbon disulfide	10.1		1.0	0.38
56-23-5	Carbon tetrachloride	10.1		1.0	0.43
108-90-7	Chlorobenzene	8.68		1.0	0.25
75-00-3	Chloroethane	8.58		1.0	0.32
67-66-3	Chloroform	9.36		1.0	0.25
74-87-3	Chloromethane	8.20		1.0	0.44
156-59-2	cis-1,2-Dichloroethene	9.63		1.0	0.26
10061-01-5	cis-1,3-Dichloropropene	9.25		1.0	0.46
75-27-4	Bromodichloromethane	9.20		1.0	0.29
75-71-8	Dichlorodifluoromethane	6.65		1.0	0.32
100-41-4	Ethylbenzene	8.98		1.0	0.25
106-93-4	1,2-Dibromoethane	9.57		1.0	0.32
179601-23-1	m-Xylene & p-Xylene	8.80		2.0	0.24
98-82-8	Isopropylbenzene	8.78		1.0	0.35
78-93-3	2-Butanone (MEK)	18.7		10	0.53
108-10-1	4-Methyl-2-pentanone (MIBK)	20.3		10	0.99
1634-04-4	Methyl tert-butyl ether	9.86		1.0	0.20
75-09-2	Methylene Chloride	9.21		1.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-49022-D-1 MSD

Matrix: Water | Lab File ID: UXM7107.D

Analysis Method: 8260B | Date Collected: 04/06/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2015 20:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175730 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
95-47-6	o-Xylene	9.13		1.0	0.25
100-42-5	Styrene	7.62		1.0	0.45
127-18-4	Tetrachloroethene	8.92		1.0	0.31
108-88-3	Toluene	9.17		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	9.71		1.0	0.30
10061-02-6	trans-1,3-Dichloropropene	9.77		1.0	0.56
79-01-6	Trichloroethene	9.44		1.0	0.22
75-69-4	Trichlorofluoromethane	9.75		1.0	0.49
75-01-4	Vinyl chloride	7.97		1.0	0.29
1330-20-7	Xylenes, Total	17.9		2.0	0.52
124-48-1	Dibromochloromethane	8.96		1.0	0.43

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129
460-00-4	4-Bromofluorobenzene (Surr)	101		66-120
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/08/2015 12:22

Analysis Batch Number: 175603 End Date: 04/08/2015 17:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-175603/1		04/08/2015 12:22	1	BFB4271.D	DB-624 0.18(mm)
STD8260 240-175603/2 IC		04/08/2015 12:59	1	UXM7066.D	DB-624 0.18(mm)
STD8260 240-175603/3 IC		04/08/2015 13:22	1	UXM7067.D	DB-624 0.18(mm)
STD8260 240-175603/4 ICIS		04/08/2015 13:44	1	UXM7068.D	DB-624 0.18(mm)
STD8260 240-175603/5 IC		04/08/2015 14:07	1	UXM7069.D	DB-624 0.18(mm)
STD8260 240-175603/6 IC		04/08/2015 14:30	1	UXM7070.D	DB-624 0.18(mm)
STD8260 240-175603/7 IC		04/08/2015 14:53	1	UXM7071.D	DB-624 0.18(mm)
ICV 240-175603/8		04/08/2015 15:15	1	UXM7072.D	DB-624 0.18(mm)
STDA9 240-175603/9 IC		04/08/2015 15:38	1	UXM7073.D	DB-624 0.18(mm)
STDA9 240-175603/10 IC		04/08/2015 16:01	1	UXM7074.D	DB-624 0.18(mm)
STDA9 240-175603/11 IC		04/08/2015 16:24	1	UXM7075.D	DB-624 0.18(mm)
STDA9 240-175603/12 IC		04/08/2015 16:46	1	UXM7076.D	DB-624 0.18(mm)
STDA9 240-175603/13 IC		04/08/2015 17:09	1	UXM7077.D	DB-624 0.18(mm)
STDA9 240-175603/14 IC		04/08/2015 17:32	1	UXM7078.D	DB-624 0.18(mm)
ICV 240-175603/15		04/08/2015 17:55	1	UXM7079.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/09/2015 09:53

Analysis Batch Number: 175730 End Date: 04/09/2015 21:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-175730/1		04/09/2015 09:53	1	BFB4272.D	DB-624 0.18(mm)
CCVIS 240-175730/2		04/09/2015 10:35	1	UXM7081.D	DB-624 0.18(mm)
CCV 240-175730/3		04/09/2015 10:57	1	UXM7082.D	DB-624 0.18(mm)
LCS 240-175730/4		04/09/2015 11:20	1	UXM7083.D	DB-624 0.18(mm)
ZZZZZ		04/09/2015 11:43	1		DB-624 0.18(mm)
MB 240-175730/6		04/09/2015 12:06	1	UXM7085.D	DB-624 0.18(mm)
ZZZZZ		04/09/2015 16:17	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 16:40	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 17:02	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 17:25	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 17:48	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 18:11	1		DB-624 0.18(mm)
240-49010-2	TB-040615	04/09/2015 18:34	1	UXM7102.D	DB-624 0.18(mm)
ZZZZZ		04/09/2015 18:57	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 19:19	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 19:42	1		DB-624 0.18(mm)
240-49022-A-1 MS		04/09/2015 20:05	1	UXM7106.D	DB-624 0.18(mm)
240-49022-D-1 MSD		04/09/2015 20:28	1	UXM7107.D	DB-624 0.18(mm)
ZZZZZ		04/09/2015 20:51	1		DB-624 0.18(mm)
ZZZZZ		04/09/2015 21:13	1		DB-624 0.18(mm)

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
FILL-001	240-49010-1	89	82	98	88
	MB 240-175483/8	94	91	98	90
	LCS 240-175483/6	97	90	100	97
FILL-001 MS	240-49010-1 MS	97	88	106	98
FILL-001 MSD	240-49010-1 MSD	93	86	98	91

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX86842.D

Lab ID: LCS 240-175483/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	51.1	102	80-120	
1,1,1-Trichloroethane	50.0	47.9	96	77-126	
1,1,2,2-Tetrachloroethane	50.0	53.4	107	77-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.0	96	80-138	
1,1-Dichloroethane	50.0	47.0	94	76-120	
1,1-Dichloroethene	50.0	46.9	94	75-135	
1,1-Dichloropropene	50.0	52.6	105	80-120	
1,2,3-Trichlorobenzene	50.0	43.9	88	61-121	
1,2,3-Trichloropropane	50.0	55.7	111	80-126	
1,2,4-Trichlorobenzene	50.0	47.3	95	64-124	
1,2,4-Trimethylbenzene	50.0	50.9	102	80-129	
1,2-Dibromo-3-Chloropropane	50.0	58.8	118	61-132	
1,2-Dichlorobenzene	50.0	47.5	95	76-120	
1,2-Dichloroethane	50.0	44.7	89	72-120	
1,2-Dichloropropane	50.0	47.8	96	80-120	
1,3-Dichlorobenzene	50.0	48.1	96	78-120	
1,3-Dichloropropane	50.0	49.9	100	80-120	
1,4-Dichlorobenzene	50.0	46.4	93	75-120	
2,2-Dichloropropane	50.0	44.0	88	69-135	
2-Chloroethyl vinyl ether	60.0	79.2	132	28-173	
2-Chlorotoluene	50.0	51.1	102	78-120	
2-Hexanone	100	114	114	64-136	
Bromobenzene	50.0	50.3	101	80-120	
Bromochloromethane	50.0	48.7	97	79-120	
4-Chlorotoluene	50.0	50.8	102	79-120	
p-Isopropyltoluene	50.0	51.8	104	77-131	
Acetone	100	104	104	41-137	
Benzene	50.0	47.9	96	79-120	
Bromoform	50.0	49.5	99	62-133	
Bromomethane	50.0	50.1	100	42-136	
Carbon disulfide	50.0	51.2	102	62-146	
Carbon tetrachloride	50.0	49.9	100	71-129	
Chlorobenzene	50.0	47.4	95	78-120	
Chloroethane	50.0	48.0	96	58-120	
Chloroform	50.0	46.3	93	77-120	
Chloromethane	50.0	37.9	76	50-120	
cis-1,2-Dichloroethene	50.0	50.0	100	76-120	
cis-1,3-Dichloropropene	50.0	54.0	108	74-128	
Hexachlorobutadiene	50.0	45.0	90	54-131	
Dibromomethane	50.0	49.6	99	80-120	
Bromodichloromethane	50.0	51.3	103	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX86842.D

Lab ID: LCS 240-175483/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	50.0	31.9	64	26-120	
Ethylbenzene	50.0	49.2	98	79-120	
1,2-Dibromoethane	50.0	53.3	107	80-120	
Naphthalene	50.0	52.1	104	65-123	
m-Xylene & p-Xylene	50.0	50.8	102	80-120	
n-Butylbenzene	50.0	51.8	104	68-135	
Isopropylbenzene	50.0	52.6	105	76-122	
N-Propylbenzene	50.0	54.6	109	80-129	
2-Butanone (MEK)	100	101	101	52-131	
4-Methyl-2-pentanone (MIBK)	100	114	114	67-135	
sec-Butylbenzene	50.0	52.5	105	74-129	
Methyl tert-butyl ether	50.0	49.5	99	49-165	
Methylene Chloride	50.0	50.2	100	75-120	
o-Xylene	50.0	51.6	103	80-120	
Styrene	50.0	51.2	102	80-120	
tert-Butylbenzene	50.0	58.2	116	76-126	
Tetrachloroethene	50.0	47.1	94	79-120	
Toluene	50.0	47.8	96	75-120	
trans-1,2-Dichloroethene	50.0	50.5	101	78-120	
trans-1,3-Dichloropropene	50.0	56.2	112	73-131	
Trichloroethene	50.0	49.9	100	79-120	
Trichlorofluoromethane	50.0	46.8	94	57-146	
Vinyl acetate	50.0	36.8	74	70-130	
Vinyl chloride	50.0	41.4	83	57-120	
tert-Butyl alcohol (TBA)	500	571	114	60-125	
Xylenes, Total	100	102	102	80-120	
Dibromochloromethane	50.0	53.7	107	72-127	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX86866.D

Lab ID: 240-49010-1 MS Client ID: FILL-001 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	26.6	0.65 U	24.9	94	34-135	
1,1,1-Trichloroethane	26.6	0.59 U	22.7	85	51-128	
1,1,2,2-Tetrachloroethane	26.6	0.36 U	24.5	92	16-179	
1,1,2-Trichloro-1,2,2-trifluoroethane	26.6	1.4 U	22.5	85	50-147	
1,1-Dichloroethane	26.6	0.38 U	23.7	89	54-122	
1,1-Dichloroethene	26.6	0.55 U	23.2	87	49-157	
1,1-Dichloropropene	26.6	0.32 U	24.6	92	50-122	
1,2,3-Trichlorobenzene	26.6	0.40 U	16.8	63	10-120	
1,2,3-Trichloropropane	26.6	0.95 U	25.4	95	32-174	
1,2,4-Trichlorobenzene	26.6	0.28 U	18.6	70	10-120	
1,2,4-Trimethylbenzene	26.6	0.68 U	23.0	86	10-173	
1,2-Dibromo-3-Chloropropane	26.6	1.4 U	23.6	89	10-153	
1,2-Dichlorobenzene	26.6	0.38 U	22.0	83	17-122	
1,2-Dichloroethane	26.6	0.36 U	21.6	81	49-123	
1,2-Dichloropropane	26.6	0.72 U	23.4	88	61-120	
1,3-Dichlorobenzene	26.6	0.37 U	21.7	82	16-126	
1,3-Dichloropropane	26.6	0.36 U	24.3	91	54-128	
1,4-Dichlorobenzene	26.6	0.69 U	21.0	79	15-121	
2,2-Dichloropropane	26.6	0.99 U	21.4	81	49-132	
2-Chloroethyl vinyl ether	31.9	1.5 U	44.8 J	140	10-162	
2-Chlorotoluene	26.6	0.42 U	24.6	93	11-162	
2-Hexanone	53.1	0.66 U	44.9	84	37-147	
Bromobenzene	26.6	0.35 U	24.7	93	24-144	
Bromochloromethane	26.6	0.75 U	24.0	90	53-120	
4-Chlorotoluene	26.6	0.43 U	23.7	89	15-149	
p-Isopropyltoluene	26.6	0.22 U	22.2	84	10-165	
Acetone	53.1	6.6 U	37.8	71	24-140	
Benzene	26.6	0.24 U	23.6	89	53-120	
Bromoform	26.6	0.35 U	20.4	77	18-129	
Bromomethane	26.6	0.57 U	24.6	93	33-130	
Carbon disulfide	26.6	0.46 U	23.4	88	20-151	
Carbon tetrachloride	26.6	0.39 U	22.3	84	32-137	
Chlorobenzene	26.6	0.35 U	23.7	89	37-120	
Chloroethane	26.6	0.90 U	23.3	88	45-120	
Chloroform	26.6	0.30 U	23.5	88	53-120	
Chloromethane	26.6	0.43 U	19.4	73	34-120	
cis-1,2-Dichloroethene	26.6	0.38 U	25.1	95	50-120	
cis-1,3-Dichloropropene	26.6	0.36 U	24.5	92	27-133	
Hexachlorobutadiene	26.6	1.3 U	17.1	64	10-131	
Dibromomethane	26.6	0.66 U	24.5	92	52-123	
Bromodichloromethane	26.6	0.29 U	23.7	89	35-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX86866.D

Lab ID: 240-49010-1 MS Client ID: FILL-001 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	26.6	0.53 U	14.7	55	17-120	
Ethylbenzene	26.6	0.27 U	23.6	89	30-131	
1,2-Dibromoethane	26.6	0.53 U	25.8	97	45-127	
Naphthalene	26.6	0.20 U	20.8	78	10-124	
m-Xylene & p-Xylene	26.6	1.3 U	23.9	90	29-131	
n-Butylbenzene	26.6	0.24 U	20.9	79	10-148	
Isopropylbenzene	26.6	0.17 U	24.6	93	21-134	
N-Propylbenzene	26.6	0.42 U	24.7	93	10-178	
2-Butanone (MEK)	53.1	1.5 U	44.2	83	30-143	
4-Methyl-2-pentanone (MIBK)	53.1	0.57 U	47.2	89	43-147	
sec-Butylbenzene	26.6	0.19 U	23.6	89	10-172	
Methyl tert-butyl ether	26.6	0.45 U	24.0	90	51-157	
Methylene Chloride	26.6	0.70 U	26.4	99	54-120	
o-Xylene	26.6	0.37 U	25.7	97	29-134	
Styrene	26.6	0.16 U	24.0	90	27-127	
tert-Butylbenzene	26.6	0.30 U	27.5	104	10-163	
Tetrachloroethene	26.6	0.55 U	22.9	86	31-135	
Toluene	26.6	0.28 U	24.2	91	39-129	
trans-1,2-Dichloroethene	26.6	0.43 U	24.4	92	50-123	
trans-1,3-Dichloropropene	26.6	0.57 U	24.4	92	28-137	
Trichloroethene	26.6	0.44 U	24.0	90	10-177	
Trichlorofluoromethane	26.6	0.36 U	22.4	84	36-142	
Vinyl acetate	26.6	0.26 U	0.970 J	4	70-130	F1
Vinyl chloride	26.6	0.41 U	20.6	77	42-120	
tert-Butyl alcohol (TBA)	266	8.0 U	228	86	60-125	
Xylenes, Total	53.1	0.37 U	49.6	93	30-131	
Dibromochloromethane	26.6	0.58 U	24.9	94	29-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX86867.D

Lab ID: 240-49010-1 MSD Client ID: FILL-001 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	25.9	22.1	85	12	30	34-135	
1,1,1-Trichloroethane	25.9	20.8	80	9	30	51-128	
1,1,2,2-Tetrachloroethane	25.9	22.1	85	10	30	16-179	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.9	20.8	80	8	30	50-147	
1,1-Dichloroethane	25.9	21.3	82	10	30	54-122	
1,1-Dichloroethene	25.9	21.2	82	9	30	49-157	
1,1-Dichloropropene	25.9	22.5	87	9	30	50-122	
1,2,3-Trichlorobenzene	25.9	14.2	55	16	30	10-120	
1,2,3-Trichloropropane	25.9	23.7	91	7	30	32-174	
1,2,4-Trichlorobenzene	25.9	15.6	60	18	30	10-120	
1,2,4-Trimethylbenzene	25.9	19.4	75	17	30	10-173	
1,2-Dibromo-3-Chloropropane	25.9	21.5	83	9	30	10-153	
1,2-Dichlorobenzene	25.9	19.0	73	15	30	17-122	
1,2-Dichloroethane	25.9	20.1	78	7	30	49-123	
1,2-Dichloropropane	25.9	21.2	82	10	30	61-120	
1,3-Dichlorobenzene	25.9	19.1	74	13	30	16-126	
1,3-Dichloropropane	25.9	22.4	86	8	30	54-128	
1,4-Dichlorobenzene	25.9	18.3	70	14	30	15-121	
2,2-Dichloropropane	25.9	17.9	69	18	30	49-132	
2-Chloroethyl vinyl ether	31.1	41.8 J	135	7	30	10-162	
2-Chlorotoluene	25.9	21.4	83	14	30	11-162	
2-Hexanone	51.8	43.3	83	4	30	37-147	
Bromobenzene	25.9	21.0	81	16	30	24-144	
Bromochloromethane	25.9	22.4	86	7	30	53-120	
4-Chlorotoluene	25.9	20.9	81	12	30	15-149	
p-Isopropyltoluene	25.9	18.7	72	17	30	10-165	
Acetone	51.8	39.3	76	4	30	24-140	
Benzene	25.9	21.4	83	9	30	53-120	
Bromoform	25.9	18.3	70	11	30	18-129	
Bromomethane	25.9	20.3	78	19	30	33-130	
Carbon disulfide	25.9	21.5	83	8	30	20-151	
Carbon tetrachloride	25.9	20.8	80	7	30	32-137	
Chlorobenzene	25.9	21.1	82	11	30	37-120	
Chloroethane	25.9	19.4	75	18	30	45-120	
Chloroform	25.9	20.9	80	12	30	53-120	
Chloromethane	25.9	16.7	64	15	30	34-120	
cis-1,2-Dichloroethene	25.9	22.3	86	12	30	50-120	
cis-1,3-Dichloropropene	25.9	21.9	85	11	30	27-133	
Hexachlorobutadiene	25.9	13.2	51	26	30	10-131	
Dibromomethane	25.9	21.8	84	12	30	52-123	
Bromodichloromethane	25.9	21.9	85	8	30	35-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX86867.D

Lab ID: 240-49010-1 MSD Client ID: FILL-001 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	25.9	12.8	49	14	30	17-120	
Ethylbenzene	25.9	20.9	81	12	30	30-131	
1,2-Dibromoethane	25.9	23.6	91	9	30	45-127	
Naphthalene	25.9	18.8	73	10	30	10-124	
m-Xylene & p-Xylene	25.9	21.3	82	11	30	29-131	
n-Butylbenzene	25.9	16.8	65	22	30	10-148	
Isopropylbenzene	25.9	21.4	83	14	30	21-134	
N-Propylbenzene	25.9	21.4	82	14	30	10-178	
2-Butanone (MEK)	51.8	42.7	82	4	30	30-143	
4-Methyl-2-pentanone (MIBK)	51.8	45.8	88	3	30	43-147	
sec-Butylbenzene	25.9	19.6	76	18	30	10-172	
Methyl tert-butyl ether	25.9	21.8	84	10	30	51-157	
Methylene Chloride	25.9	23.0	89	14	30	54-120	
o-Xylene	25.9	21.7	84	17	30	29-134	
Styrene	25.9	20.8	80	14	30	27-127	
tert-Butylbenzene	25.9	21.1	82	26	30	10-163	
Tetrachloroethene	25.9	19.6	76	15	30	31-135	
Toluene	25.9	21.4	83	12	30	39-129	
trans-1,2-Dichloroethene	25.9	22.4	87	8	30	50-123	
trans-1,3-Dichloropropene	25.9	21.9	85	11	30	28-137	
Trichloroethene	25.9	21.9	85	9	30	10-177	
Trichlorofluoromethane	25.9	19.6	76	13	30	36-142	
Vinyl acetate	25.9	0.300 J	1	106	30	70-130	F1 F2
Vinyl chloride	25.9	18.3	71	12	30	42-120	
tert-Butyl alcohol (TBA)	259	233	90	2	30	60-125	
Xylenes, Total	51.8	43.0	83	14	30	30-131	
Dibromochloromethane	25.9	21.2	82	16	30	29-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: UX86844.D Lab Sample ID: MB 240-175483/8

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX8 Date Analyzed: 04/08/2015 03:14

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-175483/6	UX86842.D	04/08/2015 02:31
FILL-001	240-49010-1	UX86865.D	04/08/2015 11:06
FILL-001 MS	240-49010-1 MS	UX86866.D	04/08/2015 11:27
FILL-001 MSD	240-49010-1 MSD	UX86867.D	04/08/2015 11:48

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: BFB8726.D BFB Injection Date: 01/20/2015

Instrument ID: A3UX8 BFB Injection Time: 02:25

Analysis Batch No.: 164619

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	83.8	
175	5.0 - 9.0 % of mass 174	6.2	(7.4)1
176	95.0 - 101.0 % of mass 174	81.5	(97.3)1
177	5.0 - 9.0 % of mass 176	5.3	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STDA9 240-164619/5	UX85491.D	01/20/2015	03:27
	STDA9 240-164619/6	UX85492.D	01/20/2015	04:21
	STDA9 240-164619/7	UX85493.D	01/20/2015	04:49
	STDA9 240-164619/8	UX85494.D	01/20/2015	05:10
	STDA9 240-164619/9	UX85495.D	01/20/2015	05:32
	STDA9 240-164619/10	UX85496.D	01/20/2015	05:53

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: BFB8752.D BFB Injection Date: 03/02/2015

Instrument ID: A3UX8 BFB Injection Time: 23:39

Analysis Batch No.: 170352

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.3	
75	30.0 - 60.0 % of mass 95	46.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	86.6	
175	5.0 - 9.0 % of mass 174	6.1	(7.0)1
176	95.0 - 101.0 % of mass 174	83.8	(96.8)1
177	5.0 - 9.0 % of mass 176	5.6	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-170352/3	UX86154.D	03/03/2015	00:12
	STD8260 240-170352/4	UX86155.D	03/03/2015	00:34
	STD8260 240-170352/5	UX86156.D	03/03/2015	00:55
	ICIS 240-170352/6	UX86157.D	03/03/2015	01:34
	STD8260 240-170352/7	UX86158.D	03/03/2015	01:56
	STD8260 240-170352/8	UX86159.D	03/03/2015	02:17
	STD8260 240-170352/9	UX86160.D	03/03/2015	02:38
	STD8260 240-170352/10	UX86161.D	03/03/2015	03:00
	ICV 240-170352/11	UX86162.D	03/03/2015	03:21

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: BFB8781.D BFB Injection Date: 04/08/2015

Instrument ID: A3UX8 BFB Injection Time: 01:17

Analysis Batch No.: 175483

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.6	
75	30.0 - 60.0 % of mass 95	42.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	87.4	
175	5.0 - 9.0 % of mass 174	6.5	(7.5)1
176	95.0 - 101.0 % of mass 174	86.4	(98.9)1
177	5.0 - 9.0 % of mass 176	5.9	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-175483/4	UX86840.D	04/08/2015	01:48
	CCV 240-175483/5	UX86841.D	04/08/2015	02:10
	LCS 240-175483/6	UX86842.D	04/08/2015	02:31
	MB 240-175483/8	UX86844.D	04/08/2015	03:14
FILL-001	240-49010-1	UX86865.D	04/08/2015	11:06
FILL-001 MS	240-49010-1 MS	UX86866.D	04/08/2015	11:27
FILL-001 MSD	240-49010-1 MSD	UX86867.D	04/08/2015	11:48

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: ICIS 240-170352/6 Date Analyzed: 03/03/2015 01:34

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX86157.D Heated Purge: (Y/N) Y

Calibration ID: 27146

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1259665	5.16	916655	7.69	494963	9.88
UPPER LIMIT		2519330	5.66	1833310	8.19	989926	10.38
LOWER LIMIT		629833	4.66	458328	7.19	247482	9.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-170352/11		1272907	5.16	926219	7.69	502598	9.88
CCVIS 240-175483/4		1394117	5.16	1014357	7.68	515237	9.88

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCVIS 240-175483/4 Date Analyzed: 04/08/2015 01:48

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX86840.D Heated Purge: (Y/N) Y

Calibration ID: 27146

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1394117	5.16	1014357	7.68	515237	9.88
UPPER LIMIT		2788234	5.66	2028714	8.18	1030474	10.38
LOWER LIMIT		697059	4.66	507179	7.18	257619	9.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-175483/5		1320869	5.16	999503	7.69	501009	9.88
LCS 240-175483/6		1292574	5.16	984859	7.69	512963	9.88
MB 240-175483/8		1203955	5.16	908134	7.68	465584	9.88
240-49010-1	FILL-001	1298003	5.16	961950	7.68	486415	9.88
240-49010-1 MS	FILL-001 MS	1319810	5.16	966647	7.69	497060	9.88
240-49010-1 MSD	FILL-001 MSD	1273194	5.16	947007	7.69	492979	9.88

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 | Lab Sample ID: 240-49010-1

Matrix: Solid | Lab File ID: UX86865.D

Analysis Method: 8260C | Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.14(g) | Date Analyzed: 04/08/2015 11:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.65	U	5.3	0.65
71-55-6	1,1,1-Trichloroethane	0.59	U	5.3	0.59
79-34-5	1,1,2,2-Tetrachloroethane	0.36	U	5.3	0.36
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	U	5.3	1.4
75-34-3	1,1-Dichloroethane	0.38	U	5.3	0.38
75-35-4	1,1-Dichloroethene	0.55	U	5.3	0.55
563-58-6	1,1-Dichloropropene	0.32	U	5.3	0.32
87-61-6	1,2,3-Trichlorobenzene	0.40	U	5.3	0.40
96-18-4	1,2,3-Trichloropropane	0.95	U	5.3	0.95
526-73-8	1,2,3-Trimethylbenzene	0.18	U	5.3	0.18
120-82-1	1,2,4-Trichlorobenzene	0.28	U	5.3	0.28
95-63-6	1,2,4-Trimethylbenzene	0.68	U	5.3	0.68
96-12-8	1,2-Dibromo-3-Chloropropane	1.4	U	11	1.4
95-50-1	1,2-Dichlorobenzene	0.38	U	5.3	0.38
107-06-2	1,2-Dichloroethane	0.36	U	5.3	0.36
78-87-5	1,2-Dichloropropane	0.72	U	5.3	0.72
541-73-1	1,3-Dichlorobenzene	0.37	U	5.3	0.37
142-28-9	1,3-Dichloropropane	0.36	U	5.3	0.36
106-46-7	1,4-Dichlorobenzene	0.69	U	5.3	0.69
594-20-7	2,2-Dichloropropane	0.99	U	5.3	0.99
110-75-8	2-Chloroethyl vinyl ether	1.5	U	53	1.5
95-49-8	2-Chlorotoluene	0.42	U	5.3	0.42
591-78-6	2-Hexanone	0.66	U	21	0.66
108-86-1	Bromobenzene	0.35	U	5.3	0.35
74-97-5	Bromochloromethane	0.75	U	5.3	0.75
106-43-4	4-Chlorotoluene	0.43	U	5.3	0.43
99-87-6	p-Isopropyltoluene	0.22	U	5.3	0.22
67-64-1	Acetone	6.6	U	21	6.6
71-43-2	Benzene	0.24	U	5.3	0.24
75-25-2	Bromoform	0.35	U	5.3	0.35
74-83-9	Bromomethane	0.57	U	5.3	0.57
75-15-0	Carbon disulfide	0.46	U	5.3	0.46
56-23-5	Carbon tetrachloride	0.39	U	5.3	0.39
108-90-7	Chlorobenzene	0.35	U	5.3	0.35
75-00-3	Chloroethane	0.90	U	5.3	0.90

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 | Lab Sample ID: 240-49010-1

Matrix: Solid | Lab File ID: UX86865.D

Analysis Method: 8260C | Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.14(g) | Date Analyzed: 04/08/2015 11:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.30	U	5.3	0.30
74-87-3	Chloromethane	0.43	U	5.3	0.43
156-59-2	cis-1,2-Dichloroethene	0.38	U	5.3	0.38
10061-01-5	cis-1,3-Dichloropropene	0.36	U	5.3	0.36
87-68-3	Hexachlorobutadiene	1.3	U	5.3	1.3
74-95-3	Dibromomethane	0.66	U	5.3	0.66
75-27-4	Bromodichloromethane	0.29	U	5.3	0.29
75-71-8	Dichlorodifluoromethane	0.53	U	5.3	0.53
100-41-4	Ethylbenzene	0.27	U	5.3	0.27
106-93-4	1,2-Dibromoethane	0.53	U	5.3	0.53
108-20-3	Diisopropyl ether	1.6	U	11	1.6
91-20-3	Naphthalene	0.20	U	5.3	0.20
179601-23-1	m-Xylene & p-Xylene	1.3	U	11	1.3
104-51-8	n-Butylbenzene	0.24	U	5.3	0.24
98-82-8	Isopropylbenzene	0.17	U	5.3	0.17
103-65-1	N-Propylbenzene	0.42	U	5.3	0.42
78-93-3	2-Butanone (MEK)	1.5	U	21	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	0.57	U	21	0.57
135-98-8	sec-Butylbenzene	0.19	U	5.3	0.19
1634-04-4	Methyl tert-butyl ether	0.45	U	5.3	0.45
994-05-8	Tert-amyl methyl ether	0.39	U	5.3	0.39
75-09-2	Methylene Chloride	0.70	U	5.3	0.70
95-47-6	o-Xylene	0.37	U	5.3	0.37
100-42-5	Styrene	0.16	U	5.3	0.16
637-92-3	Ethyl-t-butyl ether (ETBE)	0.23	U	5.3	0.23
98-06-6	tert-Butylbenzene	0.30	U	5.3	0.30
127-18-4	Tetrachloroethene	0.55	U	5.3	0.55
108-88-3	Toluene	0.28	U	5.3	0.28
156-60-5	trans-1,2-Dichloroethene	0.43	U	5.3	0.43
10061-02-6	trans-1,3-Dichloropropene	0.57	U	5.3	0.57
79-01-6	Trichloroethene	0.44	U	5.3	0.44
75-69-4	Trichlorofluoromethane	0.36	U	5.3	0.36
108-05-4	Vinyl acetate	0.26	U F1 F2	11	0.26
75-01-4	Vinyl chloride	0.41	U	5.3	0.41
75-65-0	tert-Butyl alcohol (TBA)	8.0	U	210	8.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 Lab Sample ID: 240-49010-1

Matrix: Solid Lab File ID: UX86865.D

Analysis Method: 8260C Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.14(g) Date Analyzed: 04/08/2015 11:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 Level: (low/med) Low

Analysis Batch No.: 175483 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	0.37	U	11	0.37
124-48-1	Dibromochloromethane	0.58	U	5.3	0.58

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		58-123
460-00-4	4-Bromofluorobenzene (Surr)	88		52-136
2037-26-5	Toluene-d8 (Surr)	98		67-125
1868-53-7	Dibromofluoromethane (Surr)	89		37-132

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 164619

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/20/2015 03:27 Calibration End Date: 01/20/2015 05:53 Calibration ID: 26299

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-164619/10	UX85496.D
Level 2	STDA9 240-164619/9	UX85495.D
Level 3	STDA9 240-164619/8	UX85494.D
Level 4	STDA9 240-164619/7	UX85493.D
Level 5	STDA9 240-164619/6	UX85492.D
Level 6	STDA9 240-164619/5	UX85491.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0445 0.0382	0.0435	0.0384	0.0498	0.0402	Ave		0.0424				11.0		15.0			
Diisopropyl ether	0.1962 0.1982	0.1983	0.1929	0.1976	0.2006	Ave		0.1973				1.3		15.0			
2-Chloro-1,3-butadiene	0.3347 0.3779	0.3434	0.3276	0.3267	0.3982	Ave		0.3514				8.5		15.0			
Ethyl-t-butyl ether (ETBE)	0.7031 0.7391	0.7020	0.6803	0.7375	0.7299	Ave		0.7153				3.3		15.0			
Ethyl acetate	0.0857 0.0758	0.0860	0.0880	0.0937	0.0833	Ave		0.0854				6.9		15.0			
Propionitrile	0.0465 0.0394	0.0442	0.0430	0.0516	0.0429	Ave		0.0446				9.3		15.0			
Methacrylonitrile	0.1872 0.1719	0.1838	0.1864	0.2056	0.1821	Ave		0.1862				5.9		15.0			
Tert-amyl methyl ether	0.5793 0.6073	0.6098	0.5853	0.6358	0.5992	Ave		0.6028				3.3		15.0			
n-Butanol	0.0104 0.0079	0.0097	0.0093	0.0109	0.0092	Ave		0.0096				11.0		15.0			
Ethyl acrylate	0.2697 0.2685	0.2746	0.3025	0.3165	0.2938	Ave		0.2876				6.9		15.0			
Methyl methacrylate	0.2331 0.2114	0.2160	0.2400	0.2491	0.2283	Ave		0.2297				6.2		15.0			
2-Nitropropane	0.0393 0.0575	0.0397	0.0471	0.0595	0.0591	Lin1	-0.270	0.0590							0.9980		0.9900
1-Chlorohexane	0.3015 0.3452	0.3019	0.3127	0.2801	0.3826	Ave		0.3206				12.0		15.0			
Cyclohexanone	0.0166 0.0118	0.0153	0.0137	0.0157	0.0141	Ave		0.0145				12.0		15.0			
1,2,3-Trimethylbenzene	2.3887 2.3514	2.4070	2.3363	2.2081	2.4505	Ave		2.3570				3.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 164619

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/20/2015 03:27 Calibration End Date: 01/20/2015 05:53 Calibration ID: 26299

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	1.0897 0.9404	1.0188	0.9529	0.8801	1.0387	Ave		0.9868				7.7		15.0			
2-Methylnaphthalene	1.4411 +++++	1.6564	1.6821	1.6906	1.5173	Ave		1.5975				7.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 164619

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/20/2015 03:27 Calibration End Date: 01/20/2015 05:53 Calibration ID: 26299

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-164619/10	UX85496.D
Level 2	STDA9 240-164619/9	UX85495.D
Level 3	STDA9 240-164619/8	UX85494.D
Level 4	STDA9 240-164619/7	UX85493.D
Level 5	STDA9 240-164619/6	UX85492.D
Level 6	STDA9 240-164619/5	UX85491.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	58774 2192485	113045	218282	628675	1157500	50.0 2000	100	200	500	1000
Diisopropyl ether	FB	Ave	25882 1137618	51556	109591	249256	578323	5.00 200	10.0	20.0	50.0	100
2-Chloro-1,3-butadiene	FB	Ave	44159 2169223	89287	186130	412010	1147963	5.00 200	10.0	20.0	50.0	100
Ethyl-t-butyl ether (ETBE)	FB	Ave	92769 4243098	182537	386528	930109	2104258	5.00 200	10.0	20.0	50.0	100
Ethyl acetate	FB	Ave	22603 870817	44719	99997	236306	480365	10.0 400	20.0	40.0	100	200
Propionitrile	FB	Ave	61354 2261333	115036	244581	651222	1236047	50.0 2000	100	200	500	1000
Methacrylonitrile	FB	Ave	247046 9866507	478011	1058808	2593148	5250813	50.0 2000	100	200	500	1000
Tert-amyl methyl ether	FB	Ave	76433 3486226	158569	332516	801841	1727490	5.00 200	10.0	20.0	50.0	100
n-Butanol	FB	Ave	34195 1133332	63302	131707	344469	660771	125 5000	250	500	1250	2500
Ethyl acrylate	FB	Ave	35580 1541429	71416	171874	399212	846936	5.00 200	10.0	20.0	50.0	100
Methyl methacrylate	FB	Ave	61502 2427195	112341	272744	628403	1316510	10.0 400	20.0	40.0	100	200
2-Nitropropane	FB	Lin1	10370 659846	20665	53519	149962	340915	10.0 400	20.0	40.0	100	200
1-Chlorohexane	CBZ	Ave	29209 1447995	57996	134742	265880	805604	5.00 200	10.0	20.0	50.0	100
Cyclohexanone	CBZ	Ave	16055 494045	29360	59067	149319	296624	50.0 2000	100	200	500	1000
1,2,3-Trimethylbenzene	DCB	Ave	123283 5456187	250592	525878	1139830	2843845	5.00 200	10.0	20.0	50.0	100
1,3,5-Trichlorobenzene	DCB	Ave	56241 2182004	106067	214482	454324	1205423	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 164619

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/20/2015 03:27 Calibration End Date: 01/20/2015 05:53 Calibration ID: 26299

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2-Methylnaphthalene	DCB	Ave	148754 +++++	344886	757263	1745361	3521753	10.0 +++++	20.0	40.0	100	200

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-170352/10	UX86161.D
Level 2	STD8260 240-170352/9	UX86160.D
Level 3	STD8260 240-170352/8	UX86159.D
Level 4	STD8260 240-170352/7	UX86158.D
Level 5	ICIS 240-170352/6	UX86157.D
Level 6	STD8260 240-170352/5	UX86156.D
Level 7	STD8260 240-170352/4	UX86155.D
Level 8	STD8260 240-170352/3	UX86154.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1564 0.1887	0.1715 0.1985	0.1946 0.1840	0.2066	0.1844	Ave		0.1856			0.1000	8.5		15.0			
Chloromethane	0.2048 0.2108	0.2277 0.2314	0.2332 0.2083	0.2289	0.2224	Ave		0.2209			0.1000	5.1		15.0			
Vinyl chloride	0.1478 0.1529	0.1775 0.1608	0.1676 0.1598	0.1858	0.1579	Ave		0.1638			0.1000	7.7		15.0			
Bromomethane	0.1071 0.0870	0.1172 0.0823	0.1087 0.0632	0.1164	0.1042	Qua	0.0723	0.0985	-0.000178		0.0500				0.9990		0.9900
Chloroethane	0.0677 0.0859	0.1085 0.0784	0.0892 0.0635	0.1049	0.0947	Qua	0.0366	0.0931	-0.000149						1.0000		0.9900
Dichlorofluoromethane	0.2675 0.2181	0.2484 0.2099	0.2416 0.1876	0.2554	0.2243	Ave		0.2316				11.0		15.0			
Trichlorofluoromethane	0.2037 0.2306	0.2326 0.2296	0.2172 0.2186	0.2673	0.2282	Ave		0.2285			0.1000	8.1		15.0			
Ethyl ether	0.1660 0.1384	0.1777 0.1319	0.1977 +++++	0.1719	0.1542	Ave		0.1626				14.0		15.0			
Acrolein	0.0213 0.0206	0.0151 0.0140	0.0232 +++++	0.0183	0.0235	Qua	-0.142	0.0274	-0.000026						0.9980		0.9900
1,1-Dichloroethene	0.2008 0.1872	0.2042 0.1866	0.1934 0.1887	0.2099	0.1852	Ave		0.1945			0.1000	4.8		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1515 0.1533	0.1628 0.1608	0.1474 0.1591	0.1717	0.1560	Ave		0.1578			0.0500	4.8		15.0			
Acetone	+++++ 0.1117	+++++ 0.1056	0.2169 0.1031	0.1870	0.1504	Lin1	1.4323	0.0998			0.0500				0.9960		0.9900
Iodomethane	0.3112 0.2885	0.3326 0.2930	0.3051 0.2905	0.3366	0.3051	Ave		0.3078				6.0		15.0			
Carbon disulfide	0.4014 0.4962	0.4691 0.4971	0.4438 0.5321	0.5063	0.4630	Ave		0.4761			0.1000	8.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.0859 0.1143	0.0895 0.1221	0.1120 0.1204	0.1260	0.1087	Ave		0.1099				13.0		15.0			
Methyl acetate	0.2446 0.2166	0.2639 0.2196	0.2292 0.2261	0.2710	0.2518	Ave		0.2404			0.1000	8.6		15.0			
Methylene Chloride	+++++ 0.2450	+++++ 0.2289	0.4507 0.2254	0.3697	0.2764	Lin1	1.2590	0.2186			0.1000				0.9990		0.9900
tert-Butyl alcohol (TBA)	0.0285 0.0267	0.0281 0.0266	0.0250 0.0225	0.0338	0.0317	Ave		0.0279				13.0		15.0			
Acrylonitrile	0.1012 0.0969	0.1135 0.0993	0.1008 0.1003	0.1193	0.1142	Ave		0.1057				8.1		15.0			
trans-1,2-Dichloroethene	0.2147 0.2207	0.2330 0.2250	0.2405 0.2218	0.2511	0.2239	Ave		0.2288			0.1000	5.2		15.0			
Methyl tert-butyl ether	0.6090 0.6371	0.6468 0.6656	0.6354 0.6511	0.7315	0.6943	Ave		0.6588			0.1000	5.8		15.0			
Hexane	+++++ 0.0614	0.0794 0.0634	0.0619 0.0638	0.0736	0.0616	Ave		0.0664				11.0		15.0			
1,1-Dichloroethane	0.4224 0.3785	0.4175 0.3912	0.4092 0.3924	0.4268	0.3936	Ave		0.4039			0.1000	4.3		15.0			
Vinyl acetate	0.1670 0.2195	0.2206 0.2393	0.2019 0.2328	0.2502	0.1999	Ave		0.2164				12.0		15.0			
2-Butanone (MEK)	0.1518 0.1445	0.1768 0.1439	0.1565 0.1456	0.1728	0.1660	Ave		0.1572			0.0500	8.4		15.0			
cis-1,2-Dichloroethene	0.2505 0.2426	0.2480 0.2522	0.2567 0.2488	0.2701	0.2482	Ave		0.2521			0.1000	3.3		15.0			
2,2-Dichloropropane	0.1554 0.1793	0.1789 0.1767	0.1701 0.1769	0.2059	0.1842	Ave		0.1784				7.9		15.0			
Bromochloromethane	0.1366 0.1248	0.1300 0.1264	0.1287 0.1235	0.1390	0.1297	Ave		0.1298				4.2		15.0			
Tetrahydrofuran	0.0816 0.0826	0.0850 0.0863	0.0810 0.0874	0.1003	0.0954	Ave		0.0875				7.9		15.0			
Chloroform	0.4094 0.3690	0.4017 0.3769	0.3941 0.3749	0.4321	0.3758	Ave		0.3917				5.6		15.0			
1,1,1-Trichloroethane	0.2959 0.2905	0.2873 0.2980	0.2658 0.3051	0.3166	0.2863	Ave		0.2932			0.1000	5.1		15.0			
Cyclohexane	0.3382 0.3707	0.3551 0.3851	0.3558 0.3847	0.4097	0.3533	Ave		0.3691			0.1000	6.3		15.0			
1,1-Dichloropropene	0.2465 0.2685	0.2764 0.2786	0.2655 0.2814	0.3186	0.2646	Ave		0.2750				7.5		15.0			
Carbon tetrachloride	0.2529 0.2573	0.2426 0.2725	0.2477 0.2777	0.2759	0.2408	Ave		0.2584			0.1000	5.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0093 0.0105	0.0112 0.0105	0.0097 0.0095	0.0131	0.0125	Ave		0.0108				13.0		15.0			
1,2-Dichloroethane	0.3413 0.2892	0.3330 0.2958	0.3000 0.2915	0.3319	0.3090	Ave		0.3115			0.1000	6.7		15.0			
Benzene	1.0042 0.8984	1.0032 0.9154	0.9905 0.9081	1.0272	0.9139	Ave		0.9576			0.5000	5.6		15.0			
n-Heptane	+++++ 0.0743	+++++ 0.0751	0.0621 0.0737	0.0809	0.0653	Ave		0.0719				9.6		15.0			
Trichloroethene	0.2681 0.2394	0.2722 0.2475	0.2549 0.2488	0.2651	0.2436	Ave		0.2549			0.2000	4.8		15.0			
Methylcyclohexane	0.3826 0.3806	0.3958 0.4000	0.3591 0.3963	0.4190	0.3572	Ave		0.3863			0.1000	5.4		15.0			
1,2-Dichloropropane	0.2552 0.2259	0.2388 0.2293	0.2398 0.2232	0.2595	0.2265	Ave		0.2373			0.1000	5.8		15.0			
Dibromomethane	0.1129 0.1303	0.1394 0.1332	0.1280 0.1304	0.1392	0.1366	Ave		0.1313				6.5		15.0			
1,4-Dioxane	0.0022 0.0027	0.0024 0.0027	0.0027 0.0023	0.0031	0.0026	Ave		0.0026				12.0		15.0			
Bromodichloromethane	0.2118 0.2683	0.2067 0.2871	0.2387 0.2911	0.2752	0.2615	Ave		0.2550			0.1000	13.0		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0627	0.0453 0.0687	0.0519 0.0720	0.0630	0.0582	Ave		0.0602				15.0		15.0			
cis-1,3-Dichloropropene	0.2725 0.3244	0.2489 0.3408	0.2812 0.3442	0.3185	0.2979	Ave		0.3036			0.1500	11.0		15.0			
4-Methyl-2-pentanone (MIBK)	0.2116 0.2763	0.2360 0.2727	0.2505 0.2660	0.3110	0.2950	Ave		0.2649			0.0500	12.0		15.0			
Toluene	1.5016 1.3090	1.3867 1.3149	1.3331 1.3637	1.4933	1.2962	Ave		1.3748			0.4000	5.9		15.0			
trans-1,3-Dichloropropene	+++++ 0.3745	+++++ 0.3889	0.2799 0.4051	0.3532	0.3449	Ave		0.3577			0.1000	12.0		15.0			
Ethyl methacrylate	+++++ 0.3622	+++++ 0.3569	0.2914 0.3580	0.3688	0.3393	Ave		0.3461				8.2		15.0			
1,1,2-Trichloroethane	0.3165 0.2733	0.2634 0.2727	0.2937 0.2737	0.3218	0.2861	Ave		0.2876			0.1000	7.5		15.0			
1,3-Dichloropropane	0.4280 0.4647	0.4777 0.4619	0.4706 0.4652	0.5353	0.4831	Ave		0.4733				6.3		15.0			
Tetrachloroethene	0.3196 0.2649	0.2761 0.2667	0.2789 0.2676	0.3047	0.2514	Ave		0.2787			0.2000	8.1		15.0			
2-Hexanone	0.2071 0.2821	0.2420 0.2674	0.2326 0.2623	0.3130	0.3017	Ave		0.2635			0.0500	14.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	+++++ 0.2826	0.2036 0.2943	0.2150 0.3076	0.2825	0.2662	Ave		0.2645				15.0		15.0			
1,2-Dibromoethane	0.1884 0.2744	0.2663 0.2766	0.2766 0.2800	0.3094	0.2845	Ave		0.2695				13.0		15.0			
Chlorobenzene	1.0023 0.8672	1.0131 0.8677	0.9540 0.8681	1.0006	0.8633	Ave		0.9295			0.3000	7.5		15.0			
1,1,1,2-Tetrachloroethane	0.2505 0.2923	0.2554 0.2984	0.2586 0.2987	0.3077	0.2886	Ave		0.2813				8.1		15.0			
Ethylbenzene	0.4861 0.4758	0.4876 0.4697	0.4995 0.4743	0.5263	0.4493	Ave		0.4836				4.7		15.0			
m-Xylene & p-Xylene	0.5350 0.5855	0.5527 0.5688	0.5611 0.5772	0.6437	0.5453	Ave		0.5712				5.9		15.0			
o-Xylene	0.4441 0.5555	0.5400 0.5551	0.5386 0.5392	0.6420	0.5451	Ave		0.5449				9.8		15.0			
Styrene	0.6563 0.8992	0.7699 0.8849	0.7727 0.8775	0.9203	0.8455	Ave		0.8283			0.3000	11.0		15.0			
Bromoform	0.0978 0.1834	0.1087 0.1955	0.1259 0.2033	0.1815	0.1651	Lin1	-0.171	0.1980			0.1000				0.9970		0.9900
Isopropylbenzene	1.1423 1.4570	1.2214 1.4715	1.3005 1.4586	1.5782	1.3734	Ave		1.3754			0.1000	11.0		15.0			
1,1,2,2-Tetrachloroethane	0.6849 0.6624	0.6570 0.6478	0.6045 0.6699	0.7985	0.6677	Ave		0.6741			0.3000	8.2		15.0			
Bromobenzene	0.7446 0.7282	0.7583 0.7219	0.7710 0.7557	0.8237	0.7144	Ave		0.7522				4.6		15.0			
1,2,3-Trichloropropane	0.2166 0.2311	0.2015 0.2201	0.2340 0.2294	0.2953	0.2506	Ave		0.2348				12.0		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1980	0.1779 0.1957	0.1692 0.2079	0.2194	0.1827	Ave		0.1930				9.1		15.0			
N-Propylbenzene	0.5689 0.7854	0.6155 0.7815	0.7408 0.8242	0.8723	0.7534	Ave		0.7428				14.0		15.0			
2-Chlorotoluene	0.5605 0.6624	0.5827 0.6594	0.6479 0.6853	0.7511	0.6358	Ave		0.6481				9.1		15.0			
1,3,5-Trimethylbenzene	1.7342 2.3076	1.8431 2.3386	2.1033 2.3921	2.5729	2.2024	Ave		2.1868				13.0		15.0			
4-Chlorotoluene	0.6127 0.6995	0.5976 0.6874	0.7120 0.7121	0.8098	0.6558	Ave		0.6858				9.7		15.0			
tert-Butylbenzene	1.4839 2.1301	1.5955 2.1216	1.8968 2.1512	2.2751	1.9777	Ave		1.9540				14.0		15.0			
1,2,4-Trimethylbenzene	1.6814 2.4192	1.9856 2.4299	2.2754 2.4626	2.7038	2.3309	Ave		2.2861				14.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.1401 2.9860	2.4933 3.0191	2.7669 3.0336	3.2898	2.7551	Ave		2.8105				13.0		15.0			
1,3-Dichlorobenzene	1.4762 1.3178	1.4205 1.3120	1.4191 1.3227	1.5883	1.3029	Ave		1.3950			0.6000	7.3		15.0			
p-Isopropyltoluene	+++++ 2.5570	1.9978 2.6136	2.3109 2.5603	2.8183	2.4325	Ave		2.4701				11.0		15.0			
1,4-Dichlorobenzene	1.7621 1.3405	1.4395 1.3468	1.4811 1.3356	1.6724	1.3655	Ave		1.4679			0.5000	11.0		15.0			
n-Butylbenzene	1.6923 2.1625	1.8200 2.2637	1.9844 2.1701	2.3153	2.0127	Ave		2.0526				11.0		15.0			
1,2-Dichlorobenzene	1.3078 1.2586	1.3936 1.2752	1.3975 1.2501	1.5545	1.3505	Ave		1.3485			0.4000	7.5		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1225	0.1046 0.1324	0.0995 0.1435	0.1349	0.1290	Ave		0.1238			0.0500	13.0		15.0			
1,2,4-Trichlorobenzene	0.8421 0.8460	0.8580 0.9119	0.8112 0.9023	0.9203	0.8693	Ave		0.8701			0.2000	4.4		15.0			
Hexachlorobutadiene	0.5622 0.4780	0.5048 0.4922	0.5020 0.4698	0.5370	0.4832	Ave		0.5037				6.2		15.0			
Naphthalene	1.7179 2.2787	1.7202 2.4240	1.7775 2.2957	2.2933	2.4185	Ave		2.1157				15.0		15.0			
1,2,3-Trichlorobenzene	0.9801 0.8666	0.8402 0.8988	0.8278 0.8671	0.9583	0.9289	Ave		0.8960				6.2		15.0			
Dibromofluoromethane (Surr)	+++++ 0.2035	0.4464 0.2004	0.3310 0.2063	0.2530	0.2172	Qua	0.6302	0.1857	0.0000869						1.0000		0.9900
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2225	0.5122 0.2286	0.3979 0.2346	0.3140	0.2615	Qua	0.8698	0.2061	0.0001210						1.0000		0.9900
Toluene-d8 (Surr)	+++++ 1.1257	2.3212 1.0783	1.7853 1.1326	1.4062	1.1310	Qua	3.5028	0.9923	0.0006103						1.0000		0.9900
4-Bromofluorobenzene (Surr)	+++++ 0.3991	0.8616 0.3791	0.7120 0.3856	0.5259	0.4489	Qua	1.5846	0.3557	0.0001081						1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-170352/10	UX86161.D
Level 2	STD8260 240-170352/9	UX86160.D
Level 3	STD8260 240-170352/8	UX86159.D
Level 4	STD8260 240-170352/7	UX86158.D
Level 5	ICIS 240-170352/6	UX86157.D
Level 6	STD8260 240-170352/5	UX86156.D
Level 7	STD8260 240-170352/4	UX86155.D
Level 8	STD8260 240-170352/3	UX86154.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	3746 251176	8380 517858	24299 1020234	53676	92925	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chloromethane	FB	Ave	4906 280520	11129 603678	29111 1154899	59456	112051	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Vinyl chloride	FB	Ave	3539 203524	8672 419593	20932 885989	48274	79560	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromomethane	FB	Qua	2565 115756	5728 214835	13568 350225	30236	52522	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chloroethane	FB	Qua	1622 114370	5300 204568	11139 352207	27259	47704	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dichlorofluoromethane	FB	Ave	6406 290246	12140 547578	30165 1040128	66340	113019	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Trichlorofluoromethane	FB	Ave	4878 306873	11366 598951	27122 1211923	69444	114969	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethyl ether	FB	Ave	3977 184187	8685 344253	24685 +++++	44665	77718	1.00 50.0	2.00 100	5.00 +++++	10.0	20.0
Acrolein	FB	Qua	2547 136786	3701 182187	14486 +++++	23740	59121	5.00 250	10.0 500	25.0 +++++	50.0	100
1,1-Dichloroethene	FB	Ave	4809 249125	9981 486715	24153 1046029	54544	93300	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	3629 204040	7958 419537	18407 882110	44606	78620	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acetone	FB	Lin1	+++++ 297225	+++++ 551021	54156 1143323	97186	151525	+++++ 100	+++++ 200	10.0 400	20.0	40.0
Iodomethane	FB	Ave	7454 383908	16254 764539	38096 1610175	87446	153743	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Carbon disulfide	FB	Ave	9614 660358	22924 1296823	55412 2949804	131522	233266	1.00 50.0	2.00 100	5.00 200	10.0	20.0
3-Chloro-1-propene	FB	Ave	2058 152087	4374 318618	13990 667293	32727	54777	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	29290 1441376	64483 2864669	143103 6267592	351963	634426	5.00 250	10.0 500	25.0 1000	50.0	100
Methylene Chloride	FB	Lin1	+++++ 326073	+++++ 597190	56270 1249548	96035	139281	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
tert-Butyl alcohol (TBA)	FB	Ave	6829 354737	13746 693436	31227 1249970	87810	159599	10.0 500	20.0 1000	50.0 2000	100	200
Acrylonitrile	FB	Ave	24230 1290141	55473 2590093	125851 5558383	309930	575627	10.0 500	20.0 1000	50.0 2000	100	200
trans-1,2-Dichloroethene	FB	Ave	5142 293680	11386 587054	30023 1229351	65242	112801	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Methyl tert-butyl ether	FB	Ave	14586 847838	31610 1736457	79334 3609743	190039	349825	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Hexane	FB	Ave	+++++ 81731	3878 165346	7730 353867	19127	31019	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
1,1-Dichloroethane	FB	Ave	10117 503677	20404 1020526	51089 2175083	110888	198329	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Vinyl acetate	FB	Ave	3840 280423	10348 599318	24206 1238845	62399	96712	0.960 48.0	1.92 96.0	4.80 192	9.60	19.2
2-Butanone (MEK)	FB	Ave	7271 384576	17279 751029	39075 1614052	89778	167280	2.00 100	4.00 200	10.0 400	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	6001 322878	12117 658097	32045 1379260	70161	125068	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2,2-Dichloropropane	FB	Ave	3723 238612	8742 461098	21235 980520	53498	92793	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromochloromethane	FB	Ave	3273 166100	6354 329901	16071 684756	36102	65334	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Tetrahydrofuran	FB	Ave	3911 219923	8304 450196	20234 968949	52097	96186	2.00 100	4.00 200	10.0 400	20.0	40.0
Chloroform	FB	Ave	9806 491055	19629 983425	49212 2078203	112262	189353	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	7087 386625	14040 777558	33182 1691624	82250	144266	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Cyclohexane	FB	Ave	8101 493376	17352 1004781	44419 2132781	106448	177991	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1-Dichloropropene	FB	Ave	5904 357342	13507 726728	33148 1559996	82766	133306	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Carbon tetrachloride	FB	Ave	6057 342366	11856 711068	30921 1539751	71679	121316	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Isobutyl alcohol	FB	Ave	5552 349039	13740 686607	30197 1315780	85297	157253	25.0 1250	50.0 2500	125 5000	250	500
1,2-Dichloroethane	FB	Ave	8174 384931	16273 771811	37460 1615877	86219	155694	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	24052 1195591	49022 2388128	123667 5034065	266853	460470	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Heptane	FB	Ave	+++++ 98860	+++++ 195852	7757 408337	21007	32908	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
Trichloroethene	FB	Ave	6422 318617	13302 645797	31821 1379289	68861	122742	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Methylcyclohexane	FB	Ave	9163 506560	19343 1043572	44839 2197216	108864	179971	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichloropropane	FB	Ave	6113 300609	11668 598258	29941 1237377	67411	114127	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromomethane	FB	Ave	2704 173472	6813 347497	15977 722879	36171	68832	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dioxane	FB	Ave	1039 71356	2366 138705	6709 249826	16226	25764	20.0 1000	40.0 2000	100 4000	200	400
Bromodichloromethane	FB	Ave	5074 357066	10100 749091	29804 1613750	71483	131750	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 166921	4424 358320	12955 798679	32721	58651	+++++ 100	4.00 200	10.0 400	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	6528 431708	12162 889075	35106 1908395	82755	150110	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10136 735321	23065 1423106	62565 2949618	161600	297246	2.00 100	4.00 200	10.0 400	20.0	40.0
Toluene	CBZ	Ave	27355 1308073	49880 2576332	127552 5486100	285792	475267	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Ave	+++++ 374192	+++++ 761895	26778 1629786	67587	126474	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
Ethyl methacrylate	CBZ	Ave	+++++ 361900	+++++ 699196	27885 1440405	70584	124396	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	5765 273156	9473 534345	28098 1101257	61579	104901	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	7797 464404	17184 905097	45024 1871486	102438	177129	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Tetrachloroethene	CBZ	Ave	5823 264679	9932 522567	26683 1076734	58307	92185	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Hexanone	CBZ	Ave	7544 563853	17412 1047707	44518 2110114	119786	221209	2.00 100	4.00 200	10.0 400	20.0	40.0
Dibromochloromethane	CBZ	Ave	+++++ 282358	7324 576635	20567 1237345	54058	97600	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	3432 274176	9579 541854	26465 1126380	59216	104303	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chlorobenzene	CBZ	Ave	18260 866581	36441 1700017	91278 3492453	191499	316530	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	4564 292141	9186 584652	24739 1201872	58895	105818	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethylbenzene	CBZ	Ave	8855 475437	17538 920210	47792 1908298	100716	164729	1.00 50.0	2.00 100	5.00 200	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	9747 585132	19881 1114505	53687 2322017	123182	199947	1.00 50.0	2.00 100	5.00 200	10.0	20.0
o-Xylene	CBZ	Ave	8090 555144	19423 1087583	51532 2169346	122871	199864	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Styrene	CBZ	Ave	11956 898542	27695 1733825	73930 3530126	176122	310009	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromoform	CBZ	Lin1	1782 183227	3909 383004	12042 817999	34743	60546	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Isopropylbenzene	CBZ	Ave	20810 1455954	43935 2883103	124437 5868112	302032	503589	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	6343 349496	12906 669844	30022 1292627	79455	132203	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromobenzene	DCB	Ave	6896 384175	14897 746407	38290 1458021	81970	141435	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	2006 121923	3959 227615	11621 442560	29387	49607	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 104469	3495 202370	8402 401124	21836	36170	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
N-Propylbenzene	DCB	Ave	5269 414360	12091 808016	36791 1590300	86803	149165	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Chlorotoluene	DCB	Ave	5191 349499	11448 681848	32177 1322168	74740	125870	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3,5-Trimethylbenzene	DCB	Ave	16061 1217483	36207 2418136	104451 4615532	256025	436033	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Chlorotoluene	DCB	Ave	5674 369059	11739 710767	35359 1373931	80579	129830	1.00 50.0	2.00 100	5.00 200	10.0	20.0
tert-Butylbenzene	DCB	Ave	13743 1123842	31344 2193722	94194 4150735	226398	391546	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trimethylbenzene	DCB	Ave	15572 1276363	39008 2512530	112999 4751419	269052	461481	1.00 50.0	2.00 100	5.00 200	10.0	20.0
sec-Butylbenzene	DCB	Ave	19820 1575428	48980 3121718	137408 5853186	327363	545467	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	13671 695292	27906 1356626	70475 2552180	158051	257960	1.00 50.0	2.00 100	5.00 200	10.0	20.0
p-Isopropyltoluene	DCB	Ave	+++++ 1349059	39247 2702403	114762 4939926	280450	481597	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	16319 707247	28279 1392577	73552 2576899	166416	270341	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 170352

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 03/03/2015 00:12 Calibration End Date: 03/03/2015 03:00 Calibration ID: 27146

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	15673 1140954	35753 2340628	98548 4187048	230396	398476	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	12112 664029	27378 1318513	69400 2411969	154686	267385	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 64629	2055 136941	4939 276967	13425	25539	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	7799 446327	16856 942856	40283 1740875	91574	172104	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Hexachlorobutadiene	DCB	Ave	5207 252184	9916 508970	24928 906512	53441	95659	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Naphthalene	DCB	Ave	15910 1202261	33793 2506363	88270 4429380	228207	478826	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Ave	9077 457239	16505 929396	41110 1672935	95362	183899	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromofluoromethane (Surr)	FB	Qua	+++++ 270863	21813 522896	41323 1143596	65724	109442	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Qua	+++++ 296150	25032 596321	49683 1300516	81568	131736	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
Toluene-d8 (Surr)	CBZ	Qua	+++++ 1124932	83495 2112751	170823 4556666	269121	414688	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
4-Bromofluorobenzene (Surr)	CBZ	Qua	+++++ 398794	30993 742681	68128 1551254	100638	164587	+++++ 50.0	2.00 100	5.00 200	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-170352/11 Calibration Date: 03/03/2015 03:21

Instrument ID: A3UX8 Calib Start Date: 03/03/2015 00:12

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 03:00

Lab File ID: UX86162.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1856	0.2072	0.1000	0.0279	0.0250	11.7	20.0
Chloromethane	Ave	0.2209	0.2193	0.1000	0.0248	0.0250	-0.7	20.0
Vinyl chloride	Ave	0.1638	0.1679	0.1000	0.0256	0.0250	2.5	20.0
Bromomethane	Qua		0.1008	0.0500	0.0261	0.0250	4.3	20.0
Chloroethane	Qua		0.0953	0.0500	0.0263	0.0250	5.3	20.0
Dichlorofluoromethane	Ave	0.2316	0.2353		0.0254	0.0250	1.6	20.0
Trichlorofluoromethane	Ave	0.2285	0.2412	0.1000	0.0264	0.0250	5.6	20.0
Ethyl ether	Ave	0.1626	0.1622		0.0249	0.0250	-0.3	20.0
Acrolein	Qua		0.0167		0.0886	0.125	-29.1*	20.0
1,1-Dichloroethene	Ave	0.1945	0.1861	0.1000	0.0239	0.0250	-4.3	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.1578	0.1608	0.0500	0.0255	0.0250	1.9	20.0
Acetone	Lin1	0.1458	0.1130	0.0500	0.0423	0.0500	-15.5	20.0
Iodomethane	Ave	0.3078	0.3406		0.0277	0.0250	10.6	20.0
Carbon disulfide	Ave	0.4761	0.5415	0.1000	0.0284	0.0250	13.7	20.0
3-Chloro-1-propene	Ave	0.1099	0.1141		0.0260	0.0250	3.8	20.0
Methyl acetate	Ave	0.2404	0.2314	0.1000	0.120	0.125	-3.7	20.0
Methylene Chloride	Lin1	0.2993	0.2795	0.1000	0.0262	0.0250	4.8	20.0
tert-Butyl alcohol (TBA)	Ave	0.0279	0.0277		0.248	0.250	-0.7	20.0
Acrylonitrile	Ave	0.1057	0.1076		0.255	0.250	1.8	20.0
Methyl tert-butyl ether	Ave	0.6588	0.6725	0.1000	0.0255	0.0250	2.1	20.0
trans-1,2-Dichloroethene	Ave	0.2288	0.2391	0.1000	0.0261	0.0250	4.5	20.0
Hexane	Ave	0.0664	0.0669		0.0252	0.0250	0.6	20.0
1,1-Dichloroethane	Ave	0.4039	0.4126	0.1000	0.0255	0.0250	2.1	20.0
Vinyl acetate	Ave	0.2164	0.3626		0.0419	0.0250	67.5*	20.0
2-Butanone (MEK)	Ave	0.1572	0.1462	0.0500	0.0465	0.0500	-7.0	20.0
2,2-Dichloropropane	Ave	0.1784	0.1859		0.0261	0.0250	4.2	20.0
cis-1,2-Dichloroethene	Ave	0.2521	0.2621	0.1000	0.0260	0.0250	4.0	20.0
Bromochloromethane	Ave	0.1298	0.1325		0.0255	0.0250	2.0	20.0
Tetrahydrofuran	Ave	0.0875	0.0890		0.0509	0.0500	1.7	20.0
Chloroform	Ave	0.3917	0.3916	0.2000	0.0250	0.0250	-0.0	20.0
1,1,1-Trichloroethane	Ave	0.2932	0.3042	0.1000	0.0259	0.0250	3.8	20.0
Cyclohexane	Ave	0.3691	0.3878	0.1000	0.0263	0.0250	5.1	20.0
1,1-Dichloropropene	Ave	0.2750	0.2997		0.0272	0.0250	9.0	20.0
Carbon tetrachloride	Ave	0.2584	0.2681	0.1000	0.0259	0.0250	3.8	20.0
Isobutyl alcohol	Ave	0.0108	0.0112		0.649	0.625	3.8	20.0
1,2-Dichloroethane	Ave	0.3115	0.3129	0.1000	0.0251	0.0250	0.5	20.0
Benzene	Ave	0.9576	0.9522	0.5000	0.0249	0.0250	-0.6	20.0
n-Heptane	Ave	0.0719	0.0717		0.0249	0.0250	-0.2	20.0
Trichloroethene	Ave	0.2549	0.2501	0.2000	0.0245	0.0250	-1.9	20.0
1,2-Dichloropropane	Ave	0.2373	0.2421	0.1000	0.0255	0.0250	2.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-170352/11 Calibration Date: 03/03/2015 03:21

Instrument ID: A3UX8 Calib Start Date: 03/03/2015 00:12

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 03:00

Lab File ID: UX86162.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3863	0.3877	0.1000	0.0251	0.0250	0.3	20.0
1,4-Dioxane	Ave	0.0026	0.0027		0.528	0.500	5.5	20.0
Dibromomethane	Ave	0.1313	0.1373		0.0261	0.0250	4.6	20.0
Bromodichloromethane	Ave	0.2550	0.2727	0.1000	0.0267	0.0250	6.9	20.0
2-Chloroethyl vinyl ether	Ave	0.0602	0.0595		0.0296	0.0300	-1.2	20.0
cis-1,3-Dichloropropene	Ave	0.3036	0.3344	0.1500	0.0275	0.0250	10.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2649	0.2868	0.0500	0.0541	0.0500	8.3	20.0
Toluene	Ave	1.375	1.408	0.4000	0.0256	0.0250	2.4	20.0
trans-1,3-Dichloropropene	Ave	0.3577	0.4100	0.1000	0.0287	0.0250	14.6	20.0
Ethyl methacrylate	Ave	0.3461	0.4060		0.0293	0.0250	17.3	20.0
1,1,2-Trichloroethane	Ave	0.2876	0.2998	0.1000	0.0261	0.0250	4.2	20.0
1,3-Dichloropropane	Ave	0.4733	0.4994		0.0264	0.0250	5.5	20.0
Tetrachloroethene	Ave	0.2787	0.2715	0.2000	0.0244	0.0250	-2.6	20.0
2-Hexanone	Ave	0.2635	0.2678	0.0500	0.0508	0.0500	1.6	20.0
Dibromochloromethane	Ave	0.2645	0.2919		0.0276	0.0250	10.3	20.0
1,2-Dibromoethane	Ave	0.2695	0.2939		0.0273	0.0250	9.1	20.0
Chlorobenzene	Ave	0.9295	0.9385	0.3000	0.0252	0.0250	1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2813	0.3071		0.0273	0.0250	9.2	20.0
Ethylbenzene	Ave	0.4836	0.5001		0.0259	0.0250	3.4	20.0
m-Xylene & p-Xylene	Ave	0.5712	0.6002		0.0263	0.0250	5.1	20.0
o-Xylene	Ave	0.5449	0.5927		0.0272	0.0250	8.8	20.0
Styrene	Ave	0.8283	0.9497	0.3000	0.0287	0.0250	14.7	20.0
Bromoform	Lin1		0.1822	0.1000	0.0239	0.0250	-4.5	20.0
Isopropylbenzene	Ave	1.375	1.498	0.1000	0.0272	0.0250	8.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6741	0.6990	0.3000	0.0259	0.0250	3.7	20.0
Bromobenzene	Ave	0.7522	0.7540		0.0251	0.0250	0.2	20.0
1,2,3-Trichloropropane	Ave	0.2348	0.2548		0.0271	0.0250	8.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1930	0.2048		0.0265	0.0250	6.1	20.0
N-Propylbenzene	Ave	0.7428	0.7761		0.0261	0.0250	4.5	20.0
2-Chlorotoluene	Ave	0.6481	0.6750		0.0260	0.0250	4.1	20.0
1,3,5-Trimethylbenzene	Ave	2.187	2.288		0.0262	0.0250	4.6	20.0
4-Chlorotoluene	Ave	0.6858	0.7109		0.0259	0.0250	3.7	20.0
tert-Butylbenzene	Ave	1.954	2.037		0.0261	0.0250	4.3	20.0
1,2,4-Trimethylbenzene	Ave	2.286	2.319		0.0254	0.0250	1.4	20.0
sec-Butylbenzene	Ave	2.810	2.884		0.0257	0.0250	2.6	20.0
1,3-Dichlorobenzene	Ave	1.395	1.365	0.6000	0.0245	0.0250	-2.1	20.0
p-Isopropyltoluene	Ave	2.470	2.461		0.0249	0.0250	-0.3	20.0
1,4-Dichlorobenzene	Ave	1.468	1.385	0.5000	0.0236	0.0250	-5.7	20.0
n-Butylbenzene	Ave	2.053	2.041		0.0249	0.0250	-0.6	20.0
1,2-Dichlorobenzene	Ave	1.348	1.335	0.4000	0.0247	0.0250	-1.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1238	0.1184	0.0500	0.0239	0.0250	-4.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-170352/11 Calibration Date: 03/03/2015 03:21

Instrument ID: A3UX8 Calib Start Date: 03/03/2015 00:12

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 03:00

Lab File ID: UX86162.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8701	0.7720	0.2000	0.0222	0.0250	-11.3	20.0
Hexachlorobutadiene	Ave	0.5037	0.4355		0.0216	0.0250	-13.5	20.0
Naphthalene	Ave	2.116	1.933		0.0228	0.0250	-8.6	20.0
1,2,3-Trichlorobenzene	Ave	0.8960	0.7646		0.0213	0.0250	-14.7	20.0
Dibromofluoromethane (Surr)	Qua	0.2654	0.2135		0.0528	0.0500	5.6	20.0
1,2-Dichloroethane-d4 (Surr)	Qua	0.3102	0.2338		0.0510	0.0500	1.9	20.0
Toluene-d8 (Surr)	Qua	1.426	1.185		0.0544	0.0500	8.8	20.0
4-Bromofluorobenzene (Surr)	Qua	0.5303	0.4019		0.0512	0.0500	2.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVIS 240-175483/4 Calibration Date: 04/08/2015 01:48

Instrument ID: A3UX8 Calib Start Date: 03/03/2015 00:12

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 03:00

Lab File ID: UX86840.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1856	0.1672	0.1000	0.0180	0.0200	-9.9	20.0
Chloromethane	Ave	0.2209	0.1989	0.1000	0.0180	0.0200	-10.0	20.0
Vinyl chloride	Ave	0.1638	0.1610	0.1000	0.0197	0.0200	-1.7	20.0
Bromomethane	Qua		0.1063	0.0500	0.0217	0.0200	8.4	20.0
Chloroethane	Qua		0.0887	0.0500	0.0193	0.0200	-3.7	20.0
Dichlorofluoromethane	Ave	0.2316	0.2226		0.0192	0.0200	-3.9	20.0
Trichlorofluoromethane	Ave	0.2285	0.2274	0.1000	0.0199	0.0200	-0.5	20.0
Ethyl ether	Ave	0.1626	0.1550		0.0191	0.0200	-4.7	20.0
Acrolein	Qua		0.0350		0.156	0.100	56.0*	20.0
1,1-Dichloroethene	Ave	0.1945	0.1832	0.1000	0.0188	0.0200	-5.8	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.1578	0.1461	0.0500	0.0185	0.0200	-7.5	20.0
Acetone	Lin1	0.1458	0.1264	0.0500	0.0363	0.0400	-9.2	20.0
Iodomethane	Ave	0.3078	0.2796		0.0182	0.0200	-9.2	20.0
Carbon disulfide	Ave	0.4761	0.4429	0.1000	0.0186	0.0200	-7.0	20.0
3-Chloro-1-propene	Ave	0.1099	0.1120		0.0204	0.0200	2.0	20.0
Methyl acetate	Ave	0.2404	0.2283	0.1000	0.0950	0.100	-5.0	20.0
Methylene Chloride	Lin1	0.2993	0.2752	0.1000	0.0194	0.0200	-2.9	20.0
tert-Butyl alcohol (TBA)	Ave	0.0279	0.0299		0.214	0.200	7.2	20.0
Acrylonitrile	Ave	0.1057	0.1065		0.202	0.200	0.8	20.0
Methyl tert-butyl ether	Ave	0.6588	0.6267	0.1000	0.0190	0.0200	-4.9	20.0
trans-1,2-Dichloroethene	Ave	0.2288	0.2284	0.1000	0.0200	0.0200	-0.2	20.0
Hexane	Ave	0.0664	0.0632		0.0190	0.0200	-4.8	20.0
1,1-Dichloroethane	Ave	0.4039	0.3732	0.1000	0.0185	0.0200	-7.6	20.0
Vinyl acetate	Ave	0.2164	0.2271		0.0201	0.0192	4.9	20.0
2-Butanone (MEK)	Ave	0.1572	0.1548	0.0500	0.0394	0.0400	-1.5	20.0
cis-1,2-Dichloroethene	Ave	0.2521	0.2590	0.1000	0.0205	0.0200	2.7	20.0
2,2-Dichloropropane	Ave	0.1784	0.1716		0.0192	0.0200	-3.8	20.0
Bromochloromethane	Ave	0.1298	0.1327		0.0204	0.0200	2.2	20.0
Tetrahydrofuran	Ave	0.0875	0.0893		0.0408	0.0400	2.0	20.0
Chloroform	Ave	0.3917	0.3723	0.2000	0.0190	0.0200	-5.0	20.0
1,1,1-Trichloroethane	Ave	0.2932	0.2769	0.1000	0.0189	0.0200	-5.6	20.0
Cyclohexane	Ave	0.3691	0.3504	0.1000	0.0190	0.0200	-5.1	20.0
1,1-Dichloropropene	Ave	0.2750	0.2715		0.0197	0.0200	-1.3	20.0
Carbon tetrachloride	Ave	0.2584	0.2410	0.1000	0.0186	0.0200	-6.8	20.0
Isobutyl alcohol	Ave	0.0108	0.0112		0.521	0.500	4.1	20.0
1,2-Dichloroethane	Ave	0.3115	0.2774	0.1000	0.0178	0.0200	-10.9	20.0
Benzene	Ave	0.9576	0.9351	0.5000	0.0195	0.0200	-2.3	20.0
n-Heptane	Ave	0.0719	0.0728		0.0202	0.0200	1.2	20.0
Trichloroethene	Ave	0.2549	0.2514	0.2000	0.0197	0.0200	-1.4	20.0
Methylcyclohexane	Ave	0.3863	0.3813	0.1000	0.0197	0.0200	-1.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVIS 240-175483/4 Calibration Date: 04/08/2015 01:48

Instrument ID: A3UX8 Calib Start Date: 03/03/2015 00:12

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 03:00

Lab File ID: UX86840.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2373	0.2225	0.1000	0.0188	0.0200	-6.2	20.0
1,4-Dioxane	Ave	0.0026	0.0030		0.474	0.400	18.4	20.0
Dibromomethane	Ave	0.1313	0.1310		0.0200	0.0200	-0.2	20.0
Bromodichloromethane	Ave	0.2550	0.2587	0.1000	0.0203	0.0200	1.4	20.0
2-Chloroethyl vinyl ether	Ave	0.0602	0.0695		0.0461	0.0400	15.3	20.0
cis-1,3-Dichloropropene	Ave	0.3036	0.3036	0.1500	0.0200	0.0200	0.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2649	0.2813	0.0500	0.0425	0.0400	6.2	20.0
Toluene	Ave	1.375	1.386	0.4000	0.0202	0.0200	0.8	20.0
trans-1,3-Dichloropropene	Ave	0.3577	0.3552	0.1000	0.0199	0.0200	-0.7	20.0
Ethyl methacrylate	Ave	0.3461	0.3669		0.0212	0.0200	6.0	20.0
1,1,2-Trichloroethane	Ave	0.2876	0.2894	0.1000	0.0201	0.0200	0.6	20.0
1,3-Dichloropropane	Ave	0.4733	0.4741		0.0200	0.0200	0.2	20.0
Tetrachloroethene	Ave	0.2787	0.2794	0.2000	0.0200	0.0200	0.2	20.0
2-Hexanone	Ave	0.2635	0.2906	0.0500	0.0441	0.0400	10.3	20.0
Dibromochloromethane	Ave	0.2645	0.2688		0.0203	0.0200	1.6	20.0
1,2-Dibromoethane	Ave	0.2695	0.2883		0.0214	0.0200	7.0	20.0
Chlorobenzene	Ave	0.9295	0.9244	0.3000	0.0199	0.0200	-0.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2813	0.2879		0.0205	0.0200	2.4	20.0
Ethylbenzene	Ave	0.4836	0.5008		0.0207	0.0200	3.6	20.0
m-Xylene & p-Xylene	Ave	0.5712	0.6012		0.0211	0.0200	5.3	20.0
o-Xylene	Ave	0.5449	0.5807		0.0213	0.0200	6.6	20.0
Styrene	Ave	0.8283	0.9111	0.3000	0.0220	0.0200	10.0	20.0
Bromoform	Lin1		0.1774	0.1000	0.0188	0.0200	-6.1	20.0
Isopropylbenzene	Ave	1.375	1.473	0.1000	0.0214	0.0200	7.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6741	0.7327	0.3000	0.0217	0.0200	8.7	20.0
Bromobenzene	Ave	0.7522	0.7920		0.0211	0.0200	5.3	20.0
1,2,3-Trichloropropane	Ave	0.2348	0.2646		0.0225	0.0200	12.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1930	0.1857		0.0192	0.0200	-3.8	20.0
N-Propylbenzene	Ave	0.7428	0.8527		0.0230	0.0200	14.8	20.0
2-Chlorotoluene	Ave	0.6481	0.7024		0.0217	0.0200	8.4	20.0
1,3,5-Trimethylbenzene	Ave	2.187	2.385		0.0218	0.0200	9.0	20.0
4-Chlorotoluene	Ave	0.6858	0.7503		0.0219	0.0200	9.4	20.0
tert-Butylbenzene	Ave	1.954	2.198		0.0225	0.0200	12.5	20.0
1,2,4-Trimethylbenzene	Ave	2.286	2.475		0.0217	0.0200	8.3	20.0
sec-Butylbenzene	Ave	2.810	3.097		0.0220	0.0200	10.2	20.0
1,3-Dichlorobenzene	Ave	1.395	1.425	0.6000	0.0204	0.0200	2.1	20.0
p-Isopropyltoluene	Ave	2.470	2.664		0.0216	0.0200	7.9	20.0
1,4-Dichlorobenzene	Ave	1.468	1.435	0.5000	0.0195	0.0200	-2.3	20.0
n-Butylbenzene	Ave	2.053	2.236		0.0218	0.0200	8.9	20.0
1,2-Dichlorobenzene	Ave	1.348	1.358	0.4000	0.0201	0.0200	0.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1238	0.1159	0.0500	0.0187	0.0200	-6.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVIS 240-175483/4 Calibration Date: 04/08/2015 01:48

Instrument ID: A3UX8 Calib Start Date: 03/03/2015 00:12

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/03/2015 03:00

Lab File ID: UX86840.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8701	0.8211	0.2000	0.0189	0.0200	-5.6	20.0
Hexachlorobutadiene	Ave	0.5037	0.4710		0.0187	0.0200	-6.5	20.0
Naphthalene	Ave	2.116	2.003		0.0189	0.0200	-5.3	20.0
1,2,3-Trichlorobenzene	Ave	0.8960	0.7876		0.0176	0.0200	-12.1	20.0
Dibromofluoromethane (Surr)	Qua	0.2654	0.1778		0.0436	0.0500	-12.8	20.0
1,2-Dichloroethane-d4 (Surr)	Qua	0.3102	0.1858		0.0399	0.0500	-20.2*	20.0
Toluene-d8 (Surr)	Qua	1.426	1.025		0.0468	0.0500	-6.5	20.0
4-Bromofluorobenzene (Surr)	Qua	0.5303	0.3369		0.0424	0.0500	-15.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175483/5 Calibration Date: 04/08/2015 02:10

Instrument ID: A3UX8 Calib Start Date: 01/20/2015 03:27

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/20/2015 05:53

Lab File ID: UX86841.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0424	0.0380		0.179	0.200	-10.4	20.0
Diisopropyl ether	Ave	0.1973	0.2057		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.3514	0.3273		0.0186	0.0200	-6.8	20.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7153	0.6672		0.0187	0.0200	-6.7	20.0
Ethyl acetate	Ave	0.0854	0.0704		0.0330	0.0400	-17.5	20.0
Propionitrile	Ave	0.0446	0.0431		0.193	0.200	-3.3	20.0
Methacrylonitrile	Ave	0.1862	0.1799		0.193	0.200	-3.4	20.0
Tert-amyl methyl ether	Ave	0.6028	0.6130		0.0203	0.0200	1.7	20.0
n-Butanol	Ave	0.0096	0.0088		0.457	0.500	-8.5	20.0
Ethyl acrylate	Ave	0.2876	0.3327		0.0231	0.0200	15.7	20.0
Methyl methacrylate	Ave	0.2297	0.2375		0.0414	0.0400	3.4	20.0
2-Nitropropane	Lin1		0.0425		0.0334	0.0400	-16.6	20.0
1-Chlorohexane	Ave	0.3206	0.3871		0.0241	0.0200	20.7*	20.0
Cyclohexanone	Ave	0.0145	0.0117		0.161	0.200	-19.6	20.0
1,2,3-Trimethylbenzene	Ave	2.357	2.507		0.0213	0.0200	6.4	20.0
1,3,5-Trichlorobenzene	Ave	0.9868	1.010		0.0205	0.0200	2.4	20.0
2-Methylnaphthalene	Ave	1.598	1.004		0.0251	0.0400	-37.2*	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-175483/8

Matrix: Solid Lab File ID: UX86844.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 04/08/2015 03:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175483 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.62	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	0.56	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	0.34	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	U	5.0	1.3
75-34-3	1,1-Dichloroethane	0.36	U	5.0	0.36
75-35-4	1,1-Dichloroethene	0.52	U	5.0	0.52
563-58-6	1,1-Dichloropropene	0.30	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	0.38	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	0.90	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	0.17	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	0.27	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.65	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	1.3	U	10	1.3
95-50-1	1,2-Dichlorobenzene	0.36	U	5.0	0.36
107-06-2	1,2-Dichloroethane	0.34	U	5.0	0.34
78-87-5	1,2-Dichloropropane	0.69	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	0.35	U	5.0	0.35
142-28-9	1,3-Dichloropropane	0.34	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	0.66	U	5.0	0.66
594-20-7	2,2-Dichloropropane	0.94	U	5.0	0.94
110-75-8	2-Chloroethyl vinyl ether	1.4	U	50	1.4
95-49-8	2-Chlorotoluene	0.40	U	5.0	0.40
591-78-6	2-Hexanone	0.63	U	20	0.63
108-86-1	Bromobenzene	0.33	U	5.0	0.33
74-97-5	Bromochloromethane	0.71	U	5.0	0.71
106-43-4	4-Chlorotoluene	0.41	U	5.0	0.41
99-87-6	p-Isopropyltoluene	0.21	U	5.0	0.21
67-64-1	Acetone	6.3	U	20	6.3
71-43-2	Benzene	0.23	U	5.0	0.23
75-25-2	Bromoform	0.33	U	5.0	0.33
74-83-9	Bromomethane	0.54	U	5.0	0.54
75-15-0	Carbon disulfide	0.44	U	5.0	0.44
56-23-5	Carbon tetrachloride	0.37	U	5.0	0.37
108-90-7	Chlorobenzene	0.33	U	5.0	0.33
75-00-3	Chloroethane	0.86	U	5.0	0.86

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175483/8

Matrix: Solid | Lab File ID: UX86844.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 04/08/2015 03:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.29	U	5.0	0.29
74-87-3	Chloromethane	0.41	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	0.36	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	0.34	U	5.0	0.34
87-68-3	Hexachlorobutadiene	1.2	U	5.0	1.2
74-95-3	Dibromomethane	0.63	U	5.0	0.63
75-27-4	Bromodichloromethane	0.28	U	5.0	0.28
75-71-8	Dichlorodifluoromethane	0.50	U	5.0	0.50
100-41-4	Ethylbenzene	0.26	U	5.0	0.26
106-93-4	1,2-Dibromoethane	0.50	U	5.0	0.50
108-20-3	Diisopropyl ether	1.5	U	10	1.5
91-20-3	Naphthalene	0.412	J	5.0	0.19
179601-23-1	m-Xylene & p-Xylene	1.2	U	10	1.2
104-51-8	n-Butylbenzene	0.23	U	5.0	0.23
98-82-8	Isopropylbenzene	0.16	U	5.0	0.16
103-65-1	N-Propylbenzene	0.40	U	5.0	0.40
78-93-3	2-Butanone (MEK)	1.4	U	20	1.4
108-10-1	4-Methyl-2-pentanone (MIBK)	0.54	U	20	0.54
135-98-8	sec-Butylbenzene	0.18	U	5.0	0.18
1634-04-4	Methyl tert-butyl ether	0.43	U	5.0	0.43
994-05-8	Tert-amyl methyl ether	0.37	U	5.0	0.37
75-09-2	Methylene Chloride	0.696	J	5.0	0.67
95-47-6	o-Xylene	0.35	U	5.0	0.35
100-42-5	Styrene	0.15	U	5.0	0.15
637-92-3	Ethyl-t-butyl ether (ETBE)	0.22	U	5.0	0.22
98-06-6	tert-Butylbenzene	0.29	U	5.0	0.29
127-18-4	Tetrachloroethene	0.52	U	5.0	0.52
108-88-3	Toluene	0.27	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	0.41	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	0.54	U	5.0	0.54
79-01-6	Trichloroethene	0.42	U	5.0	0.42
75-69-4	Trichlorofluoromethane	0.34	U	5.0	0.34
108-05-4	Vinyl acetate	0.25	U	10	0.25
75-01-4	Vinyl chloride	0.39	U	5.0	0.39
75-65-0	tert-Butyl alcohol (TBA)	7.6	U	200	7.6
1330-20-7	Xylenes, Total	0.35	U	10	0.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175483/8

Matrix: Solid | Lab File ID: UX86844.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 04/08/2015 03:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.55	U	5.0	0.55

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		58-123
460-00-4	4-Bromofluorobenzene (Surr)	90		52-136
2037-26-5	Toluene-d8 (Surr)	98		67-125
1868-53-7	Dibromofluoromethane (Surr)	94		37-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175483/6

Matrix: Solid Lab File ID: UX86842.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 04/08/2015 02:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175483 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	51.1		5.0	0.62
71-55-6	1,1,1-Trichloroethane	47.9		5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	53.4		5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	48.0		5.0	1.3
75-34-3	1,1-Dichloroethane	47.0		5.0	0.36
75-35-4	1,1-Dichloroethene	46.9		5.0	0.52
563-58-6	1,1-Dichloropropene	52.6		5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	43.9		5.0	0.38
96-18-4	1,2,3-Trichloropropane	55.7		5.0	0.90
120-82-1	1,2,4-Trichlorobenzene	47.3		5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	50.9		5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	58.8		10	1.3
95-50-1	1,2-Dichlorobenzene	47.5		5.0	0.36
107-06-2	1,2-Dichloroethane	44.7		5.0	0.34
78-87-5	1,2-Dichloropropane	47.8		5.0	0.69
541-73-1	1,3-Dichlorobenzene	48.1		5.0	0.35
142-28-9	1,3-Dichloropropane	49.9		5.0	0.34
106-46-7	1,4-Dichlorobenzene	46.4		5.0	0.66
594-20-7	2,2-Dichloropropane	44.0		5.0	0.94
110-75-8	2-Chloroethyl vinyl ether	79.2		50	1.4
95-49-8	2-Chlorotoluene	51.1		5.0	0.40
591-78-6	2-Hexanone	114		20	0.63
108-86-1	Bromobenzene	50.3		5.0	0.33
74-97-5	Bromochloromethane	48.7		5.0	0.71
106-43-4	4-Chlorotoluene	50.8		5.0	0.41
99-87-6	p-Isopropyltoluene	51.8		5.0	0.21
67-64-1	Acetone	104		20	6.3
71-43-2	Benzene	47.9		5.0	0.23
75-25-2	Bromoform	49.5		5.0	0.33
74-83-9	Bromomethane	50.1		5.0	0.54
75-15-0	Carbon disulfide	51.2		5.0	0.44
56-23-5	Carbon tetrachloride	49.9		5.0	0.37
108-90-7	Chlorobenzene	47.4		5.0	0.33
75-00-3	Chloroethane	48.0		5.0	0.86
67-66-3	Chloroform	46.3		5.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-175483/6

Matrix: Solid | Lab File ID: UX86842.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 04/08/2015 02:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	37.9		5.0	0.41
156-59-2	cis-1,2-Dichloroethene	50.0		5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	54.0		5.0	0.34
87-68-3	Hexachlorobutadiene	45.0		5.0	1.2
74-95-3	Dibromomethane	49.6		5.0	0.63
75-27-4	Bromodichloromethane	51.3		5.0	0.28
75-71-8	Dichlorodifluoromethane	31.9		5.0	0.50
100-41-4	Ethylbenzene	49.2		5.0	0.26
106-93-4	1,2-Dibromoethane	53.3		5.0	0.50
91-20-3	Naphthalene	52.1		5.0	0.19
179601-23-1	m-Xylene & p-Xylene	50.8		10	1.2
104-51-8	n-Butylbenzene	51.8		5.0	0.23
98-82-8	Isopropylbenzene	52.6		5.0	0.16
103-65-1	N-Propylbenzene	54.6		5.0	0.40
78-93-3	2-Butanone (MEK)	101		20	1.4
108-10-1	4-Methyl-2-pentanone (MIBK)	114		20	0.54
135-98-8	sec-Butylbenzene	52.5		5.0	0.18
1634-04-4	Methyl tert-butyl ether	49.5		5.0	0.43
75-09-2	Methylene Chloride	50.2		5.0	0.67
95-47-6	o-Xylene	51.6		5.0	0.35
100-42-5	Styrene	51.2		5.0	0.15
98-06-6	tert-Butylbenzene	58.2		5.0	0.29
127-18-4	Tetrachloroethene	47.1		5.0	0.52
108-88-3	Toluene	47.8		5.0	0.27
156-60-5	trans-1,2-Dichloroethene	50.5		5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	56.2		5.0	0.54
79-01-6	Trichloroethene	49.9		5.0	0.42
75-69-4	Trichlorofluoromethane	46.8		5.0	0.34
108-05-4	Vinyl acetate	36.8		10	0.25
75-01-4	Vinyl chloride	41.4		5.0	0.39
75-65-0	tert-Butyl alcohol (TBA)	571		200	7.6
1330-20-7	Xylenes, Total	102		10	0.35
124-48-1	Dibromochloromethane	53.7		5.0	0.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175483/6

Matrix: Solid Lab File ID: UX86842.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 04/08/2015 02:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175483 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		58-123
460-00-4	4-Bromofluorobenzene (Surr)	97		52-136
2037-26-5	Toluene-d8 (Surr)	100		67-125
1868-53-7	Dibromofluoromethane (Surr)	97		37-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MS | Lab Sample ID: 240-49010-1 MS

Matrix: Solid | Lab File ID: UX86866.D

Analysis Method: 8260C | Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.08(g) | Date Analyzed: 04/08/2015 11:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	24.9		5.3	0.66
71-55-6	1,1,1-Trichloroethane	22.7		5.3	0.60
79-34-5	1,1,2,2-Tetrachloroethane	24.5		5.3	0.36
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	22.5		5.3	1.4
75-34-3	1,1-Dichloroethane	23.7		5.3	0.38
75-35-4	1,1-Dichloroethene	23.2		5.3	0.55
563-58-6	1,1-Dichloropropene	24.6		5.3	0.32
87-61-6	1,2,3-Trichlorobenzene	16.8		5.3	0.40
96-18-4	1,2,3-Trichloropropane	25.4		5.3	0.96
526-73-8	1,2,3-Trimethylbenzene	0.18	U	5.3	0.18
120-82-1	1,2,4-Trichlorobenzene	18.6		5.3	0.29
95-63-6	1,2,4-Trimethylbenzene	23.0		5.3	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	23.6		11	1.4
95-50-1	1,2-Dichlorobenzene	22.0		5.3	0.38
107-06-2	1,2-Dichloroethane	21.6		5.3	0.36
78-87-5	1,2-Dichloropropane	23.4		5.3	0.73
541-73-1	1,3-Dichlorobenzene	21.7		5.3	0.37
142-28-9	1,3-Dichloropropane	24.3		5.3	0.36
106-46-7	1,4-Dichlorobenzene	21.0		5.3	0.70
594-20-7	2,2-Dichloropropane	21.4		5.3	1.0
110-75-8	2-Chloroethyl vinyl ether	44.8	J	53	1.5
95-49-8	2-Chlorotoluene	24.6		5.3	0.43
591-78-6	2-Hexanone	44.9		21	0.67
108-86-1	Bromobenzene	24.7		5.3	0.35
74-97-5	Bromochloromethane	24.0		5.3	0.75
106-43-4	4-Chlorotoluene	23.7		5.3	0.44
99-87-6	p-Isopropyltoluene	22.2		5.3	0.22
67-64-1	Acetone	37.8		21	6.7
71-43-2	Benzene	23.6		5.3	0.24
75-25-2	Bromoform	20.4		5.3	0.35
74-83-9	Bromomethane	24.6		5.3	0.57
75-15-0	Carbon disulfide	23.4		5.3	0.47
56-23-5	Carbon tetrachloride	22.3		5.3	0.39
108-90-7	Chlorobenzene	23.7		5.3	0.35
75-00-3	Chloroethane	23.3		5.3	0.91

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MS | Lab Sample ID: 240-49010-1 MS

Matrix: Solid | Lab File ID: UX86866.D

Analysis Method: 8260C | Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.08(g) | Date Analyzed: 04/08/2015 11:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	23.5		5.3	0.31
74-87-3	Chloromethane	19.4		5.3	0.44
156-59-2	cis-1,2-Dichloroethene	25.1		5.3	0.38
10061-01-5	cis-1,3-Dichloropropene	24.5		5.3	0.36
87-68-3	Hexachlorobutadiene	17.1		5.3	1.3
74-95-3	Dibromomethane	24.5		5.3	0.67
75-27-4	Bromodichloromethane	23.7		5.3	0.30
75-71-8	Dichlorodifluoromethane	14.7		5.3	0.53
100-41-4	Ethylbenzene	23.6		5.3	0.28
106-93-4	1,2-Dibromoethane	25.8		5.3	0.53
108-20-3	Diisopropyl ether	1.6	U	11	1.6
91-20-3	Naphthalene	20.8		5.3	0.20
179601-23-1	m-Xylene & p-Xylene	23.9		11	1.3
104-51-8	n-Butylbenzene	20.9		5.3	0.24
98-82-8	Isopropylbenzene	24.6		5.3	0.17
103-65-1	N-Propylbenzene	24.7		5.3	0.43
78-93-3	2-Butanone (MEK)	44.2		21	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	47.2		21	0.57
135-98-8	sec-Butylbenzene	23.6		5.3	0.19
1634-04-4	Methyl tert-butyl ether	24.0		5.3	0.46
994-05-8	Tert-amyl methyl ether	0.39	U	5.3	0.39
75-09-2	Methylene Chloride	26.4		5.3	0.71
95-47-6	o-Xylene	25.7		5.3	0.37
100-42-5	Styrene	24.0		5.3	0.16
637-92-3	Ethyl-t-butyl ether (ETBE)	0.23	U	5.3	0.23
98-06-6	tert-Butylbenzene	27.5		5.3	0.31
127-18-4	Tetrachloroethene	22.9		5.3	0.55
108-88-3	Toluene	24.2		5.3	0.29
156-60-5	trans-1,2-Dichloroethene	24.4		5.3	0.44
10061-02-6	trans-1,3-Dichloropropene	24.4		5.3	0.57
79-01-6	Trichloroethene	24.0		5.3	0.45
75-69-4	Trichlorofluoromethane	22.4		5.3	0.36
108-05-4	Vinyl acetate	0.970	J	11	0.27
75-01-4	Vinyl chloride	20.6		5.3	0.41
75-65-0	tert-Butyl alcohol (TBA)	228		210	8.1
1330-20-7	Xylenes, Total	49.6		11	0.37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MS Lab Sample ID: 240-49010-1 MS

Matrix: Solid Lab File ID: UX86866.D

Analysis Method: 8260C Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.08(g) Date Analyzed: 04/08/2015 11:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 Level: (low/med) Low

Analysis Batch No.: 175483 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	24.9		5.3	0.58

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		58-123
460-00-4	4-Bromofluorobenzene (Surr)	98		52-136
2037-26-5	Toluene-d8 (Surr)	106		67-125
1868-53-7	Dibromofluoromethane (Surr)	97		37-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MSD | Lab Sample ID: 240-49010-1 MSD

Matrix: Solid | Lab File ID: UX86867.D

Analysis Method: 8260C | Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.21(g) | Date Analyzed: 04/08/2015 11:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	22.1		5.2	0.64
71-55-6	1,1,1-Trichloroethane	20.8		5.2	0.58
79-34-5	1,1,2,2-Tetrachloroethane	22.1		5.2	0.35
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	20.8		5.2	1.3
75-34-3	1,1-Dichloroethane	21.3		5.2	0.37
75-35-4	1,1-Dichloroethene	21.2		5.2	0.54
563-58-6	1,1-Dichloropropene	22.5		5.2	0.31
87-61-6	1,2,3-Trichlorobenzene	14.2		5.2	0.39
96-18-4	1,2,3-Trichloropropane	23.7		5.2	0.93
526-73-8	1,2,3-Trimethylbenzene	0.18	U	5.2	0.18
120-82-1	1,2,4-Trichlorobenzene	15.6		5.2	0.28
95-63-6	1,2,4-Trimethylbenzene	19.4		5.2	0.67
96-12-8	1,2-Dibromo-3-Chloropropane	21.5		10	1.3
95-50-1	1,2-Dichlorobenzene	19.0		5.2	0.37
107-06-2	1,2-Dichloroethane	20.1		5.2	0.35
78-87-5	1,2-Dichloropropane	21.2		5.2	0.72
541-73-1	1,3-Dichlorobenzene	19.1		5.2	0.36
142-28-9	1,3-Dichloropropane	22.4		5.2	0.35
106-46-7	1,4-Dichlorobenzene	18.3		5.2	0.68
594-20-7	2,2-Dichloropropane	17.9		5.2	0.97
110-75-8	2-Chloroethyl vinyl ether	41.8	J	52	1.5
95-49-8	2-Chlorotoluene	21.4		5.2	0.41
591-78-6	2-Hexanone	43.3		21	0.65
108-86-1	Bromobenzene	21.0		5.2	0.34
74-97-5	Bromochloromethane	22.4		5.2	0.74
106-43-4	4-Chlorotoluene	20.9		5.2	0.42
99-87-6	p-Isopropyltoluene	18.7		5.2	0.22
67-64-1	Acetone	39.3		21	6.5
71-43-2	Benzene	21.4		5.2	0.24
75-25-2	Bromoform	18.3		5.2	0.34
74-83-9	Bromomethane	20.3		5.2	0.56
75-15-0	Carbon disulfide	21.5		5.2	0.46
56-23-5	Carbon tetrachloride	20.8		5.2	0.38
108-90-7	Chlorobenzene	21.1		5.2	0.34
75-00-3	Chloroethane	19.4		5.2	0.89

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MSD | Lab Sample ID: 240-49010-1 MSD

Matrix: Solid | Lab File ID: UX86867.D

Analysis Method: 8260C | Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.21(g) | Date Analyzed: 04/08/2015 11:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 175483 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	20.9		5.2	0.30
74-87-3	Chloromethane	16.7		5.2	0.42
156-59-2	cis-1,2-Dichloroethene	22.3		5.2	0.37
10061-01-5	cis-1,3-Dichloropropene	21.9		5.2	0.35
87-68-3	Hexachlorobutadiene	13.2		5.2	1.2
74-95-3	Dibromomethane	21.8		5.2	0.65
75-27-4	Bromodichloromethane	21.9		5.2	0.29
75-71-8	Dichlorodifluoromethane	12.8		5.2	0.52
100-41-4	Ethylbenzene	20.9		5.2	0.27
106-93-4	1,2-Dibromoethane	23.6		5.2	0.52
108-20-3	Diisopropyl ether	1.6	U	10	1.6
91-20-3	Naphthalene	18.8		5.2	0.20
179601-23-1	m-Xylene & p-Xylene	21.3		10	1.2
104-51-8	n-Butylbenzene	16.8		5.2	0.24
98-82-8	Isopropylbenzene	21.4		5.2	0.17
103-65-1	N-Propylbenzene	21.4		5.2	0.41
78-93-3	2-Butanone (MEK)	42.7		21	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	45.8		21	0.56
135-98-8	sec-Butylbenzene	19.6		5.2	0.19
1634-04-4	Methyl tert-butyl ether	21.8		5.2	0.45
994-05-8	Tert-amyl methyl ether	0.38	U	5.2	0.38
75-09-2	Methylene Chloride	23.0		5.2	0.69
95-47-6	o-Xylene	21.7		5.2	0.36
100-42-5	Styrene	20.8		5.2	0.16
637-92-3	Ethyl-t-butyl ether (ETBE)	0.23	U	5.2	0.23
98-06-6	tert-Butylbenzene	21.1		5.2	0.30
127-18-4	Tetrachloroethene	19.6		5.2	0.54
108-88-3	Toluene	21.4		5.2	0.28
156-60-5	trans-1,2-Dichloroethene	22.4		5.2	0.42
10061-02-6	trans-1,3-Dichloropropene	21.9		5.2	0.56
79-01-6	Trichloroethene	21.9		5.2	0.44
75-69-4	Trichlorofluoromethane	19.6		5.2	0.35
108-05-4	Vinyl acetate	0.300	J	10	0.26
75-01-4	Vinyl chloride	18.3		5.2	0.40
75-65-0	tert-Butyl alcohol (TBA)	233		210	7.9
1330-20-7	Xylenes, Total	43.0		10	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MSD Lab Sample ID: 240-49010-1 MSD

Matrix: Solid Lab File ID: UX86867.D

Analysis Method: 8260C Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.21(g) Date Analyzed: 04/08/2015 11:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 7.4 Level: (low/med) Low

Analysis Batch No.: 175483 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	21.2		5.2	0.57

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		58-123
460-00-4	4-Bromofluorobenzene (Surr)	91		52-136
2037-26-5	Toluene-d8 (Surr)	98		67-125
1868-53-7	Dibromofluoromethane (Surr)	93		37-132

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A3UX8 Start Date: 01/20/2015 02:25

Analysis Batch Number: 164619 End Date: 01/20/2015 06:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-164619/1		01/20/2015 02:25	1	BFB8726.D	DB-624 0.18(mm)
STDA9 240-164619/5 IC		01/20/2015 03:27	1	UX85491.D	DB-624 0.18(mm)
STDA9 240-164619/6 IC		01/20/2015 04:21	1	UX85492.D	DB-624 0.18(mm)
STDA9 240-164619/7 IC		01/20/2015 04:49	1	UX85493.D	DB-624 0.18(mm)
STDA9 240-164619/8 IC		01/20/2015 05:10	1	UX85494.D	DB-624 0.18(mm)
STDA9 240-164619/9 IC		01/20/2015 05:32	1	UX85495.D	DB-624 0.18(mm)
STDA9 240-164619/10 IC		01/20/2015 05:53	1	UX85496.D	DB-624 0.18(mm)
ICV 240-164619/11		01/20/2015 06:14	1		DB-624 0.18(mm)
ZZZZZ		01/20/2015 06:36	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A3UX8 Start Date: 03/02/2015 23:39

Analysis Batch Number: 170352 End Date: 03/03/2015 04:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-170352/1		03/02/2015 23:39	1	BFB8752.D	DB-624 0.18(mm)
STD8260 240-170352/3 IC		03/03/2015 00:12	1	UX86154.D	DB-624 0.18(mm)
STD8260 240-170352/4 IC		03/03/2015 00:34	1	UX86155.D	DB-624 0.18(mm)
STD8260 240-170352/5 IC		03/03/2015 00:55	1	UX86156.D	DB-624 0.18(mm)
ICIS 240-170352/6		03/03/2015 01:34	1	UX86157.D	DB-624 0.18(mm)
STD8260 240-170352/7 IC		03/03/2015 01:56	1	UX86158.D	DB-624 0.18(mm)
STD8260 240-170352/8 IC		03/03/2015 02:17	1	UX86159.D	DB-624 0.18(mm)
STD8260 240-170352/9 IC		03/03/2015 02:38	1	UX86160.D	DB-624 0.18(mm)
STD8260 240-170352/10 IC		03/03/2015 03:00	1	UX86161.D	DB-624 0.18(mm)
ICV 240-170352/11		03/03/2015 03:21	1	UX86162.D	DB-624 0.18(mm)
ZZZZZ		03/03/2015 03:43	1		DB-624 0.18(mm)
ZZZZZ		03/03/2015 04:04	1		DB-624 0.18(mm)
ZZZZZ		03/03/2015 04:25	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A3UX8 Start Date: 04/08/2015 01:17

Analysis Batch Number: 175483 End Date: 04/08/2015 11:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-175483/1		04/08/2015 01:17	1	BFB8781.D	DB-624 0.18(mm)
CCVIS 240-175483/4		04/08/2015 01:48	1	UX86840.D	DB-624 0.18(mm)
CCV 240-175483/5		04/08/2015 02:10	1	UX86841.D	DB-624 0.18(mm)
LCS 240-175483/6		04/08/2015 02:31	1	UX86842.D	DB-624 0.18(mm)
ZZZZZ		04/08/2015 02:52	1		DB-624 0.18(mm)
MB 240-175483/8		04/08/2015 03:14	1	UX86844.D	DB-624 0.18(mm)
ZZZZZ		04/08/2015 03:35	1		DB-624 0.18(mm)
ZZZZZ		04/08/2015 03:56	1		DB-624 0.18(mm)
ZZZZZ		04/08/2015 05:02	4		DB-624 0.18(mm)
ZZZZZ		04/08/2015 05:23	4		DB-624 0.18(mm)
ZZZZZ		04/08/2015 05:45	4		DB-624 0.18(mm)
240-49010-1	FILL-001	04/08/2015 11:06	1	UX86865.D	DB-624 0.18(mm)
240-49010-1 MS	FILL-001 MS	04/08/2015 11:27	1	UX86866.D	DB-624 0.18(mm)
240-49010-1 MSD	FILL-001 MSD	04/08/2015 11:48	1	UX86867.D	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175488 Batch Start Date: 04/08/15 05:23 Batch Analyst: Lata, Todd

Batch Method: 5030C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
240-49010-B-1	FILL-001	5030C, 8260C	T	5.14 g	5 mL				
240-49010-B-1 MS	FILL-001	5030C, 8260C	T	5.08 g	5 mL				
240-49010-B-1 MSD	FILL-001	5030C, 8260C	T	5.21 g	5 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
FILL-001	240-49010-1	66	73	63	77	36	77
	MB 240-175545/18-A	77	81	75	82	42	78
	LCS 240-175545/19-A	83	85	83	82	72	76

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	24-110
PHL = Phenol-d5 (Surr)	26-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
FBP = 2-Fluorobiphenyl (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	36-110

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50410006.D

Lab ID: LCS 240-175545/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	532	80	35-110	
1,4-Dioxane	667	336	50	10-110	
2,4,6-Trichlorophenol	667	491	74	12-110	
2,4,5-Trichlorophenol	667	479	72	25-110	
2,4-Dichlorophenol	667	557	83	39-110	
2,4-Dimethylphenol	667	427	64	29-110	
2,4-Dinitrophenol	1330	577	43	10-110	
2,4-Dinitrotoluene	667	584	88	48-110	
2-Chloronaphthalene	667	551	83	32-110	
2-Chlorophenol	667	546	82	37-110	
2-Methylnaphthalene	667	539	81	36-110	
2-Methylphenol	667	515	77	41-110	
2-Nitroaniline	667	560	84	45-110	
2-Nitrophenol	667	570	85	34-110	
3 & 4 Methylphenol	667	544	82	40-110	
3,3'-Dichlorobenzidine	1330	1040	78	28-110	
3-Nitroaniline	667	563	84	44-110	
4,6-Dinitro-2-methylphenol	1330	811	61	10-110	
4-Bromophenyl phenyl ether	667	566	85	39-110	
4-Chloro-3-methylphenol	667	552	83	48-110	
4-Chloroaniline	667	489	73	30-110	
4-Chlorophenyl phenyl ether	667	541	81	40-110	
4-Nitroaniline	667	560	84	48-110	
Acenaphthene	667	529	79	38-110	
Acenaphthylene	667	509	76	40-110	
Acetophenone	667	545	82	40-110	
Anthracene	667	525	79	48-110	
Atrazine	1330	1060	80	66-127	
Benzaldehyde	1330	1290	97	32-110	
Benzo[a]anthracene	667	527	79	50-110	
Benzo[a]pyrene	667	533	80	44-110	
Benzo[b]fluoranthene	667	521	78	43-110	
Benzo[g,h,i]perylene	667	625	94	51-110	
Benzo[k]fluoranthene	667	573	86	38-105	
Bis(2-chloroethoxy)methane	667	557	83	32-110	
Bis(2-chloroethyl)ether	667	540	81	34-110	
Bis(2-ethylhexyl) phthalate	667	576	86	50-110	
Butyl benzyl phthalate	667	524	79	51-110	
Caprolactam	1330	1230	92	44-114	
Carbazole	667	549	82	50-110	
Chrysene	667	568	85	50-110	
Di-n-butyl phthalate	667	584	88	51-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 50410006.D

Lab ID: LCS 240-175545/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	524	79	48-110	
Dibenz(a,h)anthracene	667	593	89	51-110	
Dibenzofuran	667	540	81	43-110	
Diethyl phthalate	667	543	81	52-110	
Dimethyl phthalate	667	557	84	50-110	
Fluoranthene	667	561	84	51-110	
Fluorene	667	512	77	46-110	
Hexachlorobenzene	667	535	80	43-110	
Hexachlorobutadiene	667	580	87	29-110	
Hexachlorocyclopentadiene	667	379	57	12-110	
Hexachloroethane	667	533	80	30-110	
Indeno[1,2,3-cd]pyrene	667	602	90	50-110	
Isophorone	667	545	82	36-110	
N-Nitrosodi-n-propylamine	667	563	84	38-110	
N-Nitrosodimethylamine	667	536	80	31-110	
N-Nitrosodiphenylamine	1330	1000	75	46-110	
Naphthalene	667	527	79	36-110	
Nitrobenzene	667	560	84	32-110	
Pentachlorophenol	1330	755	57	10-110	
Phenanthrene	667	522	78	49-110	
Phenol	667	559	84	38-110	
Pyrene	667	549	82	49-110	
2,2'-oxybis[1-chloropropane]	667	491	74	29-110	
2,6-Dinitrotoluene	667	584	88	45-110	
4-Nitrophenol	1330	1140	86	28-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: 50410005.D Lab Sample ID: MB 240-175545/18-A

Matrix: Solid Date Extracted: 04/08/2015 09:16

Instrument ID: A4HP9 Date Analyzed: 04/10/2015 09:27

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-175545/19-A	50410006.D	04/10/2015 09:52
FILL-001	240-49010-1	50410023.D	04/10/2015 16:57

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: 50325001.D DFTPP Injection Date: 03/25/2015

Instrument ID: A4HP9 DFTPP Injection Time: 09:02

Analysis Batch No.: 173591

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	45.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	70.0	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	54.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.1	
275	10.0- 30.0% of mass 198	21.6	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	54.8	
443	15.0 - 24.0% of mass 442	10.1	(18.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-173591/2	50325002.D	03/25/2015	09:23
	STD4 240-173591/3	50325003.D	03/25/2015	09:48
	STD3 240-173591/4	50325004.D	03/25/2015	10:13
	STD2 240-173591/5	50325005.D	03/25/2015	10:38
	STD1 240-173591/6	50325006.D	03/25/2015	11:04
	STD9 240-173591/7	50325007.D	03/25/2015	11:29
	STD8 240-173591/8	50325008.D	03/25/2015	11:54
	STD7 240-173591/9	50325009.D	03/25/2015	12:20
	STD6 240-173591/10	50325010.D	03/25/2015	12:45
	ICV 240-173591/11	50325011.D	03/25/2015	14:02

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab File ID: 50410001.D DFTPP Injection Date: 04/10/2015

Instrument ID: A4HP9 DFTPP Injection Time: 07:50

Analysis Batch No.: 175891

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	65.3	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	51.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	22.4	
365	Greater than 0.75% of mass 198	2.9	
441	Present, but less than mass 443	8.8	
442	40.0 - 110.0% of mass 198	53.0	
443	15.0 - 24.0% of mass 442	9.8	(18.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-175891/2	50410002.D	04/10/2015	08:11
	MB 240-175545/18-A	50410005.D	04/10/2015	09:27
	LCS 240-175545/19-A	50410006.D	04/10/2015	09:52
FILL-001	240-49010-1	50410023.D	04/10/2015	16:57

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: STD6 240-173591/10 Date Analyzed: 03/25/2015 12:45

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50325010.D Heated Purge: (Y/N) N

Calibration ID: 27496

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		214653	6.48	812085	7.60	471347	9.10
UPPER LIMIT		429306	6.98	1624170	8.10	942694	9.60
LOWER LIMIT		107327	5.98	406043	7.10	235674	8.60
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-173591/11		173392	6.48	640286	7.60	379871	9.10
CCV 240-175891/2 CCVIS		150990	6.37	572668	7.49	345984	8.99

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: STD6 240-173591/10 Date Analyzed: 03/25/2015 12:45

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50325010.D Heated Purge: (Y/N) N

Calibration ID: 27496

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		753131	10.38	942919	12.71	762370	14.58
UPPER LIMIT		1506262	10.88	1885838	13.21	1524740	15.08
LOWER LIMIT		376566	9.88	471460	12.21	381185	14.08
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-173591/11		604730	10.38	738629	12.71	615553	14.58
CCV 240-175891/2 CCVIS		623411	10.25	732503	12.53	640863	14.30

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCV 240-175891/2 Date Analyzed: 04/10/2015 08:11

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50410002.D Heated Purge: (Y/N) N

Calibration ID: 27562

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		150990	6.37	572668	7.49	345984	8.99
UPPER LIMIT		301980	6.87	1145336	7.99	691968	9.49
LOWER LIMIT		75495	5.87	286334	6.99	172992	8.49
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-175545/18-A		123307	6.37	484945	7.48	294731	8.98
LCS 240-175545/19-A		124540	6.37	486138	7.48	291523	8.99
240-49010-1	FILL-001	132995	6.37	497933	7.48	299404	8.98

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCV 240-175891/2 Date Analyzed: 04/10/2015 08:11

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 50410002.D Heated Purge: (Y/N) N

Calibration ID: 27562

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		623411	10.25	732503	12.53	640863	14.30
UPPER LIMIT		1246822	10.75	1465006	13.03	1281726	14.80
LOWER LIMIT		311706	9.75	366252	12.03	320432	13.80
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-175545/18-A		554973	10.25	658933	12.53	544686	14.30
LCS 240-175545/19-A		546035	10.25	644599	12.53	565614	14.30
240-49010-1	FILL-001	561591	10.25	668046	12.53	555550	14.29

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 | Lab Sample ID: 240-49010-1

Matrix: Solid | Lab File ID: 50410023.D

Analysis Method: 8270D | Date Collected: 04/06/2015 15:00

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 29.69(g) | Date Analyzed: 04/10/2015 16:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	3.8	U	55	3.8
123-91-1	1,4-Dioxane	24	U	110	24
88-06-2	2,4,6-Trichlorophenol	9.7	U	160	9.7
95-95-4	2,4,5-Trichlorophenol	27	U	160	27
120-83-2	2,4-Dichlorophenol	22	U	160	22
105-67-9	2,4-Dimethylphenol	22	U	160	22
51-28-5	2,4-Dinitrophenol	23	U	360	23
121-14-2	2,4-Dinitrotoluene	19	U	220	19
91-58-7	2-Chloronaphthalene	0.49	U	55	0.49
95-57-8	2-Chlorophenol	8.9	U	55	8.9
91-57-6	2-Methylnaphthalene	0.55	U	7.3	0.55
95-48-7	2-Methylphenol	12	U	220	12
88-74-4	2-Nitroaniline	9.9	U	220	9.9
88-75-5	2-Nitrophenol	9.1	U	55	9.1
15831-10-4	3 & 4 Methylphenol	22	U	440	22
91-94-1	3,3'-Dichlorobenzidine	20	U	110	20
99-09-2	3-Nitroaniline	17	U	220	17
534-52-1	4,6-Dinitro-2-methylphenol	10	U	160	10
101-55-3	4-Bromophenyl phenyl ether	14	U	55	14
59-50-7	4-Chloro-3-methylphenol	23	U	160	23
106-47-8	4-Chloroaniline	19	U	160	19
7005-72-3	4-Chlorophenyl phenyl ether	14	U	55	14
100-01-6	4-Nitroaniline	28	U	220	28
83-32-9	Acenaphthene	0.83	U	7.3	0.83
208-96-8	Acenaphthylene	0.38	U	7.3	0.38
98-86-2	Acetophenone	10	U	110	10
120-12-7	Anthracene	3.9	J	7.3	0.85
1912-24-9	Atrazine	9.9	U	220	9.9
100-52-7	Benzaldehyde	13	U	110	13
56-55-3	Benzo[a]anthracene	8.0		7.3	0.69
50-32-8	Benzo[a]pyrene	7.7		7.3	0.70
205-99-2	Benzo[b]fluoranthene	8.9		7.3	0.64
191-24-2	Benzo[g,h,i]perylene	0.38	U	7.3	0.38
207-08-9	Benzo[k]fluoranthene	4.2	J	7.3	0.74

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 | Lab Sample ID: 240-49010-1

Matrix: Solid | Lab File ID: 50410023.D

Analysis Method: 8270D | Date Collected: 04/06/2015 15:00

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 29.69(g) | Date Analyzed: 04/10/2015 16:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	24	U	110	24
111-44-4	Bis(2-chloroethyl)ether	2.2	U	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	24	J B	76	21
85-68-7	Butyl benzyl phthalate	11	U	76	11
105-60-2	Caprolactam	40	U	360	40
86-74-8	Carbazole	29	U	55	29
218-01-9	Chrysene	9.3		7.3	1.2
84-74-2	Di-n-butyl phthalate	16	U	76	16
117-84-0	Di-n-octyl phthalate	8.6	U	76	8.6
53-70-3	Dibenz(a,h)anthracene	0.72	U	7.3	0.72
132-64-9	Dibenzofuran	0.72	U	55	0.72
84-66-2	Diethyl phthalate	17	U	76	17
131-11-3	Dimethyl phthalate	19	U	76	19
206-44-0	Fluoranthene	16		7.3	0.60
86-73-7	Fluorene	0.58	U	7.3	0.58
118-74-1	Hexachlorobenzene	2.3	U	7.3	2.3
87-68-3	Hexachlorobutadiene	6.1	U	55	6.1
77-47-4	Hexachlorocyclopentadiene	8.8	U	360	8.8
67-72-1	Hexachloroethane	9.8	U	55	9.8
193-39-5	Indeno[1,2,3-cd]pyrene	0.38	U	7.3	0.38
78-59-1	Isophorone	14	U	55	14
621-64-7	N-Nitrosodi-n-propylamine	6.9	U	55	6.9
62-75-9	N-Nitrosodimethylamine	17	U	110	17
86-30-6	N-Nitrosodiphenylamine	23	U	55	23
91-20-3	Naphthalene	0.89	U	7.3	0.89
98-95-3	Nitrobenzene	2.4	U	110	2.4
87-86-5	Pentachlorophenol	9.9	U	160	9.9
85-01-8	Phenanthrene	11		7.3	0.80
108-95-2	Phenol	8.0	U	55	8.0
129-00-0	Pyrene	15		7.3	0.48
108-60-1	2,2'-oxybis[1-chloropropane]	10	U	110	10
606-20-2	2,6-Dinitrotoluene	23	U	220	23
100-02-7	4-Nitrophenol	19	U	360	19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 | Lab Sample ID: 240-49010-1

Matrix: Solid | Lab File ID: 50410023.D

Analysis Method: 8270D | Date Collected: 04/06/2015 15:00

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 29.69(g) | Date Analyzed: 04/10/2015 16:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		36-110
4165-62-2	Phenol-d5 (Surr)	73		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		20-110
367-12-4	2-Fluorophenol (Surr)	66		24-110
321-60-8	2-Fluorobiphenyl (Surr)	77		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	36		10-110

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-173591/6	50325006.D
Level 2	STD2 240-173591/5	50325005.D
Level 3	STD3 240-173591/4	50325004.D
Level 4	STD4 240-173591/3	50325003.D
Level 5	STD5 240-173591/2	50325002.D
Level 6	STD6 240-173591/10	50325010.D
Level 7	STD7 240-173591/9	50325009.D
Level 8	STD8 240-173591/8	50325008.D
Level 9	STD9 240-173591/7	50325007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7805	0.6294 0.8001	0.7589 0.7987	0.7869 0.8453	0.8329	Ave		0.7791				8.5		20.0			
N-Nitrosodimethylamine	1.3439	1.3034 1.3956	1.3219 1.3941	1.3416 1.4398	1.4638	Ave		1.3755				4.2		20.0			
Pyridine	2.2675	2.0308 2.3390	2.0098 2.2991	2.0028 2.3548	2.2331	Ave		2.1921				6.9		20.0			
Benzaldehyde	1.4007	1.7348 1.6062	1.8516 1.5025	1.7824 1.4172	1.7220	Ave		1.6272			0.0100	10.6		20.0			
Phenol	2.3776	2.5038 2.4406	2.5241 2.4239	2.4379 2.4089	2.5132	Ave		2.4538			0.8000	2.2		20.0			
Aniline	2.9590	2.9553 3.0367	3.0996 3.0210	2.9196 3.0266	3.0466	Ave		3.0080				2.0		20.0			
Bis(2-chloroethyl)ether	2.0543	1.9710 2.0471	2.0882 2.0361	2.0202 2.0442	2.0901	Ave		2.0439			0.7000	1.9		20.0			
2-Chlorophenol	1.3709	1.3176 1.3879	1.4011 1.3957	1.3547 1.4028	1.4086	Ave		1.3799			0.8000	2.2		20.0			
n-Decane	1.8424	1.8138 1.8600	1.8510 1.8425	1.8204 1.8567	1.9218	Ave		1.8511				1.8		20.0			
1,3-Dichlorobenzene	1.4810	1.4773 1.4839	1.5487 1.4882	1.4895 1.4927	1.4969	Ave		1.4948				1.5		20.0			
1,4-Dichlorobenzene	1.5024	1.6042 1.5292	1.5803 1.5178	1.4972 1.5101	1.5249	Ave		1.5333				2.5		20.0			
Benzyl alcohol	1.1126	1.1537 1.1564	1.1265 1.1366	1.1182 1.1549	1.1526	Ave		1.1389				1.6		20.0			
1,2-Dichlorobenzene	1.4199	1.4578 1.4383	1.4475 1.4405	1.4475 1.4374	1.4335	Ave		1.4403				0.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.5800	1.7296 1.6157	1.6763 1.6136	1.6254 1.6129	1.6415	Ave		1.6369			0.7000	2.8		20.0			
2,2'-oxybis[1-chloropropane]	1.7134	1.7861 1.7674	1.8110 1.7558	1.7744 1.7682	1.7888	Ave		1.7706				1.6		20.0			
Indene	2.8219	2.9147 2.8375	2.9763 2.7425	2.8318 2.6784	2.9697	Ave		2.8466				3.7		20.0			
3 & 4 Methylphenol	1.6573	1.6346 1.7185	1.7268 1.6889	1.7230 1.7085	1.7058	Ave		1.6954				2.0		20.0			
N-Nitrosodi-n-propylamine	1.6844	1.7217 1.7656	1.8290 1.7285	1.7039 1.7252	1.8174	Ave		1.7469			0.5000	3.0		20.0			
Acetophenone	2.4163	2.6693 2.4746	2.5953 2.4462	2.4614 2.4569	2.4655	Ave		2.4982			0.0100	3.5		20.0			
Hexachloroethane	0.7374	0.7846 0.7474	0.7616 0.7411	0.7141 0.7461	0.7629	Ave		0.7494			0.3000	2.8		20.0			
Nitrobenzene	0.6344	0.6627 0.6560	0.7068 0.6387	0.6191 0.6442	0.6813	Ave		0.6554			0.2000	4.3		20.0			
Isophorone	1.1237	1.1222 1.1533	1.1937 1.1121	1.0834 1.1051	1.2021	Ave		1.1370			0.4000	3.7		20.0			
2-Nitrophenol	0.1799	0.1534 0.1808	0.1773 0.1792	0.1703 0.1797	0.1817	Ave		0.1753			0.1000	5.4		20.0			
2,4-Dimethylphenol	0.4718	0.5016 0.4793	0.5263 0.4634	0.4869 0.4614	0.5160	Ave		0.4883			0.2000	4.9		20.0			
Benzoic acid	0.1873	+++++ 0.2092	0.0836 0.2125	0.1136 0.2158	0.1630	Lin1	-0.348	0.2179							0.9970		0.9900
Bis(2-chloroethoxy)methane	0.5737	0.6218 0.5934	0.6142 0.5797	0.5811 0.5790	0.6108	Ave		0.5942			0.3000	3.2		20.0			
2,4-Dichlorophenol	0.2812	0.2827 0.2952	0.2902 0.2886	0.2756 0.2846	0.2956	Ave		0.2867			0.2000	2.4		20.0			
1,2,4-Trichlorobenzene	0.3031	0.3302 0.3126	0.3152 0.3023	0.3052 0.3104	0.3073	Ave		0.3108				2.9		20.0			
Naphthalene	1.1045 1.0381	1.1417 1.0815	1.1219 1.0221	1.0393 1.0129	1.0903	Ave		1.0725			0.7000	4.3		20.0			
4-Chloroaniline	0.4595	0.4833 0.4985	0.4946 0.4787	0.4399 0.4639	0.4780	Ave		0.4745			0.0100	4.1		20.0			
2,6-Dichlorophenol	0.2764	0.2810 0.2881	0.2957 0.2793	0.2815 0.2817	0.2894	Ave		0.2841				2.2		20.0			
Hexachlorobutadiene	0.1992	0.2171 0.2053	0.2168 0.1951	0.1986 0.1992	0.2103	Ave		0.2052			0.0100	4.2		20.0			
Caprolactam	0.1261	0.1148 0.1327	0.1316 0.1295	0.1220 0.1266	0.1235	Ave		0.1258			0.0100	4.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.4088	0.4144 0.4266	0.4347 0.4115	0.3999 0.4151	0.4331	Ave		0.4180			0.2000	2.9		20.0			
2-Methylnaphthalene	0.7215 0.6534	0.6850 0.6766	0.6982 0.6604	0.6448 0.6671	0.6648	Ave		0.6746			0.4000	3.5		20.0			
1-Methylnaphthalene	0.6040 0.5666	0.6166 0.5884	0.5927 0.5748	0.5603 0.5840	0.5918	Ave		0.5866				3.0		20.0			
Hexachlorocyclopentadiene	0.3345	0.2905 0.3498	0.3400 0.3606	0.3033 0.3689	0.3550	Ave		0.3378			0.0500	8.2		20.0			
1,2,4,5-Tetrachlorobenzene	0.5400	0.5734 0.5405	0.6059 0.5314	0.5246 0.5402	0.5633	Ave		0.5524			0.0100	4.9		20.0			
2,4,6-Trichlorophenol	0.3659	0.3810 0.3749	0.3732 0.3679	0.3686 0.3754	0.3500	Ave		0.3696			0.2000	2.5		20.0			
2,4,5-Trichlorophenol	0.3849	0.3770 0.3789	0.4194 0.3830	0.3792 0.3825	0.3800	Ave		0.3856			0.2000	3.6		20.0			
1,1'-Biphenyl	1.5057 1.3654	1.4208 1.3589	1.4463 1.3420	1.3367 1.3720	1.3613	Ave		1.3899			0.0100	4.1		20.0			
2-Chloronaphthalene	1.1730 1.0665	1.0915 1.0686	1.1210 1.0737	1.0538 1.0766	1.0678	Ave		1.0880			0.8000	3.4		20.0			
2-Nitroaniline	0.5781	0.5716 0.5739	0.5644 0.5765	0.5608 0.5804	0.6212	Ave		0.5784			0.0100	3.2		20.0			
Dimethyl phthalate	1.2330	1.3456 1.1993	1.3187 1.1780	1.2122 1.1904	1.2491	Ave		1.2408			0.0100	4.9		20.0			
1,3-Dinitrobenzene	0.2021	0.1612 0.2004	0.1863 0.2021	0.1891 0.2075	0.2103	Ave		0.1949				8.2		20.0			
2,6-Dinitrotoluene	0.2886	0.2387 0.2819	0.2990 0.2733	0.2777 0.2797	0.2918	Ave		0.2788				6.5		20.0			
Acenaphthylene	1.7423 1.7175	1.7738 1.7320	1.8142 1.7247	1.6815 1.7196	1.7220	Ave		1.7364			0.9000	2.2		20.0			
3-Nitroaniline	0.2845	0.2970 0.2927	0.3018 0.2975	0.3054 0.3011	0.3126	Ave		0.2991			0.0100	2.8		20.0			
2,4-Dinitrophenol	0.1405	+++++ 0.1645	0.0628 0.1786	0.0838 0.1859	0.1395	Lin1	-0.321	0.1813			0.0100				0.9930		0.9900
Acenaphthene	1.2875 1.0727	1.1517 1.0619	1.2026 1.0744	1.0628 1.0760	1.1036	Ave		1.1215			0.9000	7.0		20.0			
4-Nitrophenol	0.2625	0.2314 0.2654	0.2412 0.2622	0.2316 0.2590	0.2618	Ave		0.2519				5.8		20.0			
2,4-Dinitrotoluene	0.3706	0.3467 0.3822	0.3914 0.3917	0.3480 0.3935	0.3831	Ave		0.3759			0.2000	5.1		20.0			
Dibenzofuran	1.6451 1.4924	1.5271 1.5036	1.6204 1.4999	1.4625 1.4807	1.5291	Ave		1.5290			0.8000	4.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3036	0.2726 0.2974	0.2942 0.3053	0.2950 0.3083	0.3094	Ave		0.2982			0.0100	4.0		20.0			
Hexadecane	0.9446	1.0619 0.9432	1.0501 0.9135	0.9692 0.9015	1.0239	Ave		0.9760				6.3		20.0			
Diethyl phthalate	1.1119	1.4219 1.1477	1.3690 1.1823	1.2620 1.2079	1.2303	Ave		1.2416			0.0100	8.6		20.0			
4-Chlorophenyl phenyl ether	0.6220	0.6678 0.6158	0.6648 0.6111	0.6223 0.6033	0.6354	Ave		0.6303			0.4000	3.8		20.0			
4-Nitroaniline	0.3078	0.3021 0.3109	0.3165 0.2972	0.2524 0.2949	0.2668	Ave		0.2936			0.0100	7.6		20.0			
Fluorene	1.2920 1.2542	1.4036 1.2420	1.3739 1.2367	1.2716 1.2143	1.2800	Ave		1.2854			0.9000	4.9		20.0			
4,6-Dinitro-2-methylphenol	0.1312	+++++ 0.1387	0.0763 0.1329	0.0757 0.1343	0.1207	Lin1	-0.164	0.1387			0.0100				0.9980		0.9900
N-Nitrosodiphenylamine	0.5551	0.5365 0.5227	0.6119 0.5074	0.5348 0.5030	0.6198	Ave		0.5489			0.0100	8.1		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.3371	1.1963 1.2380	1.2442 1.1024	1.1401 1.0599	1.4318	Ave		1.2181				10.1		20.0			
Azobenzene	1.3357	1.1983 1.2380	1.2374 1.1023	1.1413 1.0597	1.4318	Ave		1.2181				10.1		20.0			
4-Bromophenyl phenyl ether	0.2099	0.1953 0.1895	0.2235 0.1762	0.1839 0.1761	0.2146	Ave		0.1961			0.1000	9.2		20.0			
Atrazine	0.2105	0.2161 0.1956	0.2032 0.1910	0.1856 0.1902	0.2282	Ave		0.2026			0.0100	7.3		20.0			
Hexachlorobenzene	0.2053 0.1884	0.1878 0.1779	0.1926 0.1694	0.1746 0.1680	0.1981	Ave		0.1847			0.1000	7.0		20.0			
n-Octadecane	0.5572	0.5797 0.5119	0.5944 0.4629	0.5358 0.4476	0.6588	Ave		0.5436				12.8		20.0			
Pentachlorophenol	0.1304	0.0830 0.1380	0.0976 0.1319	0.1023 0.1306	0.1269	Ave		0.1176			0.0500	17.2		20.0			
Phenanthrene	1.1900 1.0388	1.0771 1.0411	1.0986 1.0034	0.9831 0.9981	1.0454	Ave		1.0528			0.7000	6.0		20.0			
Anthracene	1.2224 1.0494	1.0566 1.0680	1.1180 1.0297	0.9905 1.0208	1.0802	Ave		1.0706			0.7000	6.3		20.0			
Carbazole	1.0362	0.9995 0.9730	0.9420 0.8938	0.8433 0.8774	0.9437	Ave		0.9386			0.0100	6.9		20.0			
Di-n-butyl phthalate	1.2681	1.0246 1.2254	1.0082 1.1624	0.9763 1.1315	1.2701	Ave		1.1333			0.0100	10.5		20.0			
Fluoranthene	1.3222 1.2807	1.1568 1.2300	1.0583 1.1557	0.9906 1.1257	1.1983	Ave		1.1687			0.6000	8.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzidine	0.5409	0.3084 0.6022	0.4344 0.5758	0.3739 0.5633	0.5008	Lin1	-0.364	0.5775							0.9970		0.9900
Pyrene	1.2363 1.0607	1.0684 1.0603	0.9828 1.0731	0.9649 1.0779	0.9924	Ave		1.0574			0.6000	7.6		20.0			
Butyl benzyl phthalate	0.4891	0.5133 0.5006	0.5209 0.4999	0.4911 0.5078	0.4592	Ave		0.4977			0.0100	3.8		20.0			
Bis(2-ethylhexyl) phthalate	0.6722	0.6862 0.6732	0.7174 0.6752	0.6735 0.6754	0.7161	Ave		0.6862			0.0100	2.8		20.0			
3,3'-Dichlorobenzidine	0.3360	0.3143 0.3531	0.3540 0.3548	0.3176 0.3563	0.3525	Ave		0.3423			0.0100	5.1		20.0			
Benzo[a]anthracene	1.3161 1.0674	1.0833 1.0853	1.1325 1.0916	1.0241 1.0824	1.1052	Ave		1.1098			0.8000	7.4		20.0			
Chrysene	1.1606 1.0078	1.0111 1.0048	1.0303 0.9987	0.9478 1.0061	1.0145	Ave		1.0202			0.7000	5.6		20.0			
Di-n-octyl phthalate	1.4554	1.2160 1.4975	1.4784 1.4537	1.4434 1.4961	1.4530	Ave		1.4367			0.0100	6.4		20.0			
Benzo[b]fluoranthene	1.2945 1.1603	1.0734 1.2071	1.1573 1.2178	1.0933 1.1884	1.1742	Ave		1.1740			0.7000	5.6		20.0			
Benzo[k]fluoranthene	1.2491 1.2357	1.2284 1.2477	1.2293 1.1697	1.1563 1.2858	1.1543	Ave		1.2174			0.7000	3.8		20.0			
Benzo[a]pyrene	1.2007 1.1408	1.0756 1.1803	1.1035 1.1398	1.0604 1.1751	1.1401	Ave		1.1351			0.7000	4.2		20.0			
Indeno[1,2,3-cd]pyrene	0.9678 1.0562	0.9557 1.0488	1.0322 1.0249	1.0265 1.0351	1.0540	Ave		1.0224			0.5000	3.6		20.0			
Dibenz(a,h)anthracene	0.8425 0.8750	0.7726 0.8750	0.8246 0.8442	0.8036 0.8612	0.8414	Ave		0.8378			0.4000	4.0		20.0			
Benzo[g,h,i]perylene	0.8549 0.8452	0.8266 0.8158	0.8609 0.7978	0.8728 0.7990	0.8442	Ave		0.8352			0.5000	3.2		20.0			
2-Fluorophenol (Surr)	1.5377	1.5976 1.5438	1.5570 1.5531	1.4857 1.5729	1.5534	Ave		1.5502				2.1		20.0			
Phenol-d5 (Surr)	2.1673	2.1559 2.2351	2.3028 2.2101	2.0965 2.2101	2.2920	Ave		2.2087				3.1		20.0			
Nitrobenzene-d5 (Surr)	0.8063 0.6914	0.6859 0.7119	0.7197 0.6858	0.6679 0.6945	0.7537	Ave		0.7130				6.0		20.0			
2-Fluorobiphenyl (Surr)	1.5041 1.2837	1.3070 1.2887	1.4180 1.2798	1.2512 1.2763	1.2917	Ave		1.3223				6.3		20.0			
2,4,6-Tribromophenol (Surr)	0.1327	0.1302 0.1342	0.1549 0.1423	0.1303 0.1439	0.1356	Ave		0.1380				6.2		20.0			
Terphenyl-d14 (Surr)	1.0120 0.7699	0.7733 0.7785	0.8082 0.7849	0.7685 0.7922	0.7229	Ave		0.8012				10.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-173591/6	50325006.D
Level 2	STD2 240-173591/5	50325005.D
Level 3	STD3 240-173591/4	50325004.D
Level 4	STD4 240-173591/3	50325003.D
Level 5	STD5 240-173591/2	50325002.D
Level 6	STD6 240-173591/10	50325010.D
Level 7	STD7 240-173591/9	50325009.D
Level 8	STD8 240-173591/8	50325008.D
Level 9	STD9 240-173591/7	50325007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	418824	14747 640794	33723 853106	62426 1071216	147431	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	721156	30538 1117831	58740 1489104	106440 1824745	259107	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	1216826	47581 1873385	89308 2455735	158891 2984242	395275	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	1503322	81291 2573008	164554 3209630	282820 3592104	609614	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenol	DCB	Ave	1275905	58664 1954769	112159 2589003	193413 3052838	444861	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1587871	69242 2432181	137732 3226757	231629 3835744	539268	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	1102407	46181 1639639	92788 2174802	160274 2590656	369970	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	735657	30871 1111642	62260 1490797	107479 1777808	249330	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Decane	DCB	Ave	988665	42496 1489781	82251 1968001	144425 2353015	340178	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	794771	34612 1188516	68816 1589560	118172 1891797	264971	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	806252	37586 1224833	70222 1621202	118782 1913803	269915	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	597050	27032 926181	50055 1213992	88709 1463611	204021	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	761944	34156 1151993	64318 1538649	114838 1821706	253747	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	847888	40525 1294070	74488 1723492	128948 2044006	290556	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,2'-oxybis[1-chloropropane]	DCB	Ave	919455	41849 1415613	80472 1875443	140770 2240843	316638	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indene	DCB	Ave	3028677	136583 4545396	264507 5858582	449319 6788708	1051322	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	889352	38299 1376412	76732 1803911	136697 2165230	301946	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	903905	40339 1414106	81272 1846232	135177 2186362	321697	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	1296653	62542 1981970	115323 2612875	195279 3113638	436416	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	395723	18382 598584	33842 791597	56656 945581	135045	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1287917	58385 1996604	117600 2644634	191109 3147448	450352	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	2281437	98865 3510341	198624 4605211	334417 5399478	794654	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	365297	13512 550276	29499 742073	52574 877990	120132	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	957779	44192 1458742	87573 1919028	150296 2254526	341091	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Lin1	760391	+++++ 1273201	27824 1759597	70119 2108821	215508	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Bis(2-chloroethoxy)methane	NPT	Ave	1164695	54779 1806164	102193 2400643	179371 2829071	403794	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	570976	24903 898631	48286 1195145	85086 1390764	195415	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	615410	29086 951440	52439 1251750	94221 1516469	203120	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	19717 2107585	100577 3291872	186662 4232597	320807 4949248	720724	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	932817	42580 1517270	82292 1982125	135798 2266506	315982	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dichlorophenol	NPT	Ave	561247	24759 876818	49204 1156556	86880 1376346	191308	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	404500	19124 624754	36065 807762	61317 973383	139014	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	512132	20222 807781	43779 1072275	75329 1237244	163251	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
4-Chloro-3-methylphenol	NPT	Ave	829926	36508 1298350	72328 1704008	123428 2028301	286288	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	12880 1326539	60345 2059372	116166 2734651	199029 3259681	439474	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	10783 1150306	54317 1791014	98621 2380263	172962 2853448	391189	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 394191	14853 642030	32995 882202	54350 1063952	138635	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 636365	29318 991961	58800 1300105	94014 1558023	220001	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 431209	19479 688156	36214 900045	66049 1082604	136687	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 453519	19275 695467	40699 937076	67964 1103049	148392	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	15417 1608905	72647 2494139	140354 3283358	239539 3957105	531623	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	12010 1256724	55808 1961177	108779 2626903	188848 3105106	416984	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 681193	29224 1053324	54767 1410534	100496 1674021	242594	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1452881	68801 2201166	127969 2881970	217239 3433309	487812	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dinitrobenzene	ANT	Ave	 238175	8243 367810	18082 494497	33888 598460	82135	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 340027	12206 517459	29011 668719	49757 806648	113945	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	17839 2023808	90696 3178757	176052 4219484	301330 4959532	672483	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 335286	15188 537200	29287 727912	54733 868377	122067	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Lin1	 331046	+++++ 603959	12183 874141	30051 1072248	108944	 20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	13183 1264080	58887 1948990	116703 2628589	190462 3103296	430966	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 618749	23663 974301	46808 1283077	83019 1493766	204470	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
2,4-Dinitrotoluene	ANT	Ave	 436677	17725 701434	37982 958274	62362 1134806	149592	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	16844 1758613	78081 2759685	157245 3669697	262085 4270503	597159	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,4,6-Tetrachlorophenol	ANT	Ave	 357723	13939 545856	28546 746918	52862 889273	120825	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexadecane	ANT	Ave	 1113097	54293 1731128	101899 2234817	173687 2600074	399866	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1310191	72701 2106396	132851 2892647	226164 3483688	480462	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	732971	34147 1130205	64517 1495024	111522 1739925	248128	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	362733	15447 570601	30715 727143	45239 850612	104190	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	13229 1477952	71766 2279491	133320 3025598	227886 3502165	499889	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Lin1	494016	+++++ 846043	26878 1143975	49750 1385681	148558	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
N-Nitrosodiphenylamine	PHN	Ave	2090270	101458 3187599	215572 4366843	351267 5188286	763042	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	2517457	113109 3774907	219164 4744020	374451 5466241	881361	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	2514941	113303 3775040	217961 4743833	374838 5464979	881361	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	395180	18463 577878	39363 758384	60407 907940	132091	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	792659	40870 1193007	71587 1644212	121944 1961579	280937	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Hexachlorobenzene	PHN	Ave	3769 354770	17753 542471	33922 728922	57343 866567	121972	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
n-Octadecane	PHN	Ave	1049169	54812 1561041	104703 1992182	175994 2308533	405542	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pentachlorophenol	PHN	Ave	491190	15692 841813	34394 1135147	67228 1346584	156292	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	21846 1955838	101846 3174700	193517 4318113	322892 5147388	643515	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	22442 1975840	99901 3256432	196940 4431385	325318 5264157	664972	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1951048	94505 2966866	165926 3846373	276985 4524774	580926	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2387585	96877 3736564	177591 5002493	320654 5835264	781837	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	24273 2411424	109382 3750644	186413 4973492	325358 5805154	737650	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Lin1	2549984	62984 4447865	170591 5641293	266175 6425819	793768	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Pyrene	CRY	Ave	24371 2500434	109099 3916018	192969 5256740	343439 6147965	786493	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	1152886	52413 1848920	102274 2449007	174789 2896417	363889	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-ethylhexyl) phthalate	CRY	Ave	1584665	70077 2486497	140858 3307750	239696 3852294	567470	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173591

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/25/2015 09:23 Calibration End Date: 03/25/2015 12:45 Calibration ID: 27496

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dichlorobenzidine	CRY	Ave	1584006	64183 2607968	139026 3476315	226102 4064997	558667	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzo[a]anthracene	CRY	Ave	25944 2516204	110629 4008361	222344 5347276	364506 6173682	875899	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	22879 2375668	103249 3711169	202284 4892331	337327 5738911	803981	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2773878	103525 4371636	232035 5807438	416978 6822185	974419	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	21775 2211382	91386 3523718	181643 4865188	315841 5419384	787474	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	21011 2355240	104581 3642356	192933 4673075	334051 5863314	774146	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	20197 2174194	91574 3445498	173192 4553736	306330 5358483	764608	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	16280 2013031	81365 3061634	161999 4094446	296546 4720195	706871	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	14171 1667623	65772 2554252	129416 3372548	232161 3927015	564286	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	14381 1610927	70371 2381457	135121 3187411	252141 3643427	566130	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	825182	37432 1236514	69187 1658914	117867 1993326	274968	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	1163020	50512 1790202	102326 2360672	166329 2800864	405709	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	14394 1403750	60427 2166780	119748 2839846	206156 3393569	498205	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15400 1512696	66829 2365186	137600 3131020	224222 3680934	504429	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	156373	6655 246374	15027 348168	23355 415080	52973	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	19950 1814990	78971 2875308	158687 3844858	273509 4518791	572890	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID (1): CCV 240-175891/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 04/10/2015 08:11

ANALYTE	RT	RESOLUTION (%)
1,4-Dioxane	2.66	100.0
N-Nitrosodimethylamine	3.30	100.0
2-Fluorophenol (Surr)	5.12	100.0
Benzaldehyde	5.97	100.0
Phenol-d5 (Surr)	6.00	100.0
Phenol	6.02	100.0
Bis(2-chloroethyl)ether	6.10	100.0
2-Chlorophenol	6.18	100.0
2-Methylphenol	6.56	100.0
2,2'-oxybis[1-chloropropane]	6.59	100.0
3 & 4 Methylphenol	6.69	100.0
N-Nitrosodi-n-propylamine	6.70	100.0
Acetophenone	6.71	100.0
Hexachloroethane	6.83	100.0
Nitrobenzene-d5 (Surr)	6.85	100.0
Nitrobenzene	6.86	100.0
Isophorone	7.06	100.0
2-Nitrophenol	7.14	100.0
2,4-Dimethylphenol	7.15	100.0
Bis(2-chloroethoxy)methane	7.23	100.0
2,4-Dichlorophenol	7.35	100.0
Naphthalene	7.50	100.0
4-Chloroaniline	7.52	100.0
Hexachlorobutadiene	7.61	100.0
Caprolactam	7.81	100.0
4-Chloro-3-methylphenol	7.92	100.0
2-Methylnaphthalene	8.09	100.0
Hexachlorocyclopentadiene	8.23	100.0
2,4,6-Trichlorophenol	8.32	100.0
2,4,5-Trichlorophenol	8.36	100.0
2-Fluorobiphenyl (Surr)	8.38	100.0
1,1'-Biphenyl	8.48	100.0
2-Chloronaphthalene	8.51	100.0
2-Nitroaniline	8.57	100.0
Dimethyl phthalate	8.70	100.0
2,6-Dinitrotoluene	8.76	100.0
Acenaphthylene	8.87	100.0
3-Nitroaniline	8.91	100.0
2,4-Dinitrophenol	9.00	100.0
Acenaphthene	9.01	100.0
4-Nitrophenol	9.03	100.0
2,4-Dinitrotoluene	9.11	100.0
Dibenzofuran	9.16	100.0
Diethyl phthalate	9.29	100.0
4-Chlorophenyl phenyl ether	9.42	100.0

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID (1): CCV 240-175891/2 CCVIS Instrument ID (1): A4HP9

GC Column (1): RXI-5SILMS ID: 0.45(mm) Date Analyzed (1): 04/10/2015 08:11

ANALYTE	RT	RESOLUTION (%)
4-Nitroaniline	9.43	100.0
Fluorene	9.45	100.0
4,6-Dinitro-2-methylphenol	9.46	100.0
N-Nitrosodiphenylamine	9.51	100.0
2,4,6-Tribromophenol (Surr)	9.65	100.0
4-Bromophenyl phenyl ether	9.84	100.0
Hexachlorobenzene	9.93	100.0
Atrazine	9.94	100.0
Pentachlorophenol	10.08	100.0
Phenanthrene	10.27	100.0
Anthracene	10.32	100.0
Carbazole	10.43	100.0
Di-n-butyl phthalate	10.66	100.0
Fluoranthene	11.29	100.0
Pyrene	11.49	100.0
Terphenyl-d14 (Surr)	11.57	100.0
Butyl benzyl phthalate	11.94	100.0
Bis(2-ethylhexyl) phthalate	12.42	100.0
3,3'-Dichlorobenzidine	12.46	100.0
Benzo[a]anthracene	12.53	100.0
Chrysene	12.56	100.0
Di-n-octyl phthalate	13.07	100.0
Benzo[b]fluoranthene	13.75	34.90
Benzo[k]fluoranthene	13.78	100.0
Benzo[a]pyrene	14.22	100.0
Indeno[1,2,3-cd]pyrene	16.23	100.0
Dibenz(a,h)anthracene	16.24	100.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-173591/11 Calibration Date: 03/25/2015 14:02

Instrument ID: A4HP9 Calib Start Date: 03/25/2015 09:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 03/25/2015 12:45

Lab File ID: 50325011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7791	0.7815		10.0	10.0	0.3	30.0
N-Nitrosodimethylamine	Ave	1.376	1.156		8.40	10.0	-16.0	30.0
Pyridine	Ave	2.192	2.189		9.99	10.0	-0.1	30.0
Benzaldehyde	Ave	1.627	1.538	0.0100	18.9	20.0	-5.5	30.0
Phenol	Ave	2.454	2.376	0.8000	9.68	10.0	-3.2	30.0
Aniline	Ave	3.008	2.825		9.39	10.0	-6.1	30.0
Bis(2-chloroethyl)ether	Ave	2.044	1.993	0.7000	9.75	10.0	-2.5	30.0
2-Chlorophenol	Ave	1.380	1.327	0.8000	9.62	10.0	-3.8	30.0
n-Decane	Ave	1.851	1.807		9.76	10.0	-2.4	30.0
1,3-Dichlorobenzene	Ave	1.495	1.445		9.66	10.0	-3.4	30.0
1,4-Dichlorobenzene	Ave	1.533	1.475		9.62	10.0	-3.8	30.0
Benzyl alcohol	Ave	1.139	1.074		9.43	10.0	-5.7	30.0
1,2-Dichlorobenzene	Ave	1.440	1.389		9.65	10.0	-3.5	30.0
2-Methylphenol	Ave	1.637	1.577	0.7000	9.63	10.0	-3.7	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.771	1.642		9.27	10.0	-7.3	30.0
Indene	Ave	2.847	2.677		18.8	20.0	-5.9	30.0
3 & 4 Methylphenol	Ave	1.695	1.613		9.52	10.0	-4.8	30.0
N-Nitrosodi-n-propylamine	Ave	1.747	1.635	0.5000	9.36	10.0	-6.4	30.0
Acetophenone	Ave	2.498	2.347	0.0100	9.39	10.0	-6.1	30.0
Hexachloroethane	Ave	0.7494	0.7227	0.3000	9.64	10.0	-3.6	30.0
Nitrobenzene	Ave	0.6554	0.6358	0.2000	9.70	10.0	-3.0	30.0
Isophorone	Ave	1.137	1.134	0.4000	9.97	10.0	-0.3	30.0
2,4-Dimethylphenol	Ave	0.4883	0.4635	0.2000	9.49	10.0	-5.1	30.0
2-Nitrophenol	Ave	0.1753	0.1767	0.1000	10.1	10.0	0.8	30.0
Benzoic acid	Lin1		0.1698		17.2	20.0	-14.1	30.0
Bis(2-chloroethoxy)methane	Ave	0.5942	0.5837	0.3000	9.82	10.0	-1.8	30.0
2,4-Dichlorophenol	Ave	0.2867	0.2852	0.2000	9.95	10.0	-0.5	30.0
1,2,4-Trichlorobenzene	Ave	0.3108	0.3065		9.86	10.0	-1.4	30.0
Naphthalene	Ave	1.072	1.058	0.7000	9.87	10.0	-1.3	30.0
4-Chloroaniline	Ave	0.4745	0.4582	0.0100	9.66	10.0	-3.4	30.0
2,6-Dichlorophenol	Ave	0.2841	0.2813		9.90	10.0	-1.0	30.0
Hexachlorobutadiene	Ave	0.2052	0.1995	0.0100	9.72	10.0	-2.8	30.0
Caprolactam	Ave	0.1258	0.1253	0.0100	19.9	20.0	-0.4	30.0
4-Chloro-3-methylphenol	Ave	0.4180	0.4112	0.2000	9.84	10.0	-1.6	30.0
2-Methylnaphthalene	Ave	0.6746	0.6292	0.4000	9.33	10.0	-6.7	30.0
1-Methylnaphthalene	Ave	0.5866	0.5984		10.2	10.0	2.0	30.0
Hexachlorocyclopentadiene	Ave	0.3378	0.3266	0.0500	9.67	10.0	-3.3	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5524	0.5441	0.0100	9.85	10.0	-1.5	30.0
2,4,6-Trichlorophenol	Ave	0.3696	0.3678	0.2000	9.95	10.0	-0.5	30.0
2,4,5-Trichlorophenol	Ave	0.3856	0.3906	0.2000	10.1	10.0	1.3	30.0
1,1'-Biphenyl	Ave	1.390	1.332	0.0100	9.58	10.0	-4.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-173591/11 Calibration Date: 03/25/2015 14:02

Instrument ID: A4HP9 Calib Start Date: 03/25/2015 09:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 03/25/2015 12:45

Lab File ID: 50325011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.088	1.048	0.8000	9.63	10.0	-3.7	30.0
2-Nitroaniline	Ave	0.5784	0.5758	0.0100	9.96	10.0	-0.4	30.0
Dimethyl phthalate	Ave	1.241	1.215	0.0100	9.79	10.0	-2.1	30.0
1,3-Dinitrobenzene	Ave	0.1949	0.1975		10.1	10.0	1.4	30.0
2,6-Dinitrotoluene	Ave	0.2788	0.2822		10.1	10.0	1.2	30.0
Acenaphthylene	Ave	1.736	1.653	0.9000	9.52	10.0	-4.8	30.0
3-Nitroaniline	Ave	0.2991	0.2809	0.0100	9.39	10.0	-6.1	30.0
2,4-Dinitrophenol	Lin1		0.1299	0.0100	16.1	20.0	-19.5	30.0
Acenaphthene	Ave	1.121	1.057	0.9000	9.43	10.0	-5.7	30.0
4-Nitrophenol	Ave	0.2519	0.2538		20.1	20.0	0.7	30.0
2,4-Dinitrotoluene	Ave	0.3759	0.3587	0.2000	9.54	10.0	-4.6	30.0
Dibenzofuran	Ave	1.529	1.449	0.8000	9.48	10.0	-5.2	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.2982	0.3102	0.0100	10.4	10.0	4.0	30.0
Diethyl phthalate	Ave	1.242	1.101	0.0100	8.87	10.0	-11.3	30.0
Hexadecane	Ave	0.9760	0.9552		9.79	10.0	-2.1	30.0
4-Chlorophenyl phenyl ether	Ave	0.6303	0.6048	0.4000	9.59	10.0	-4.1	30.0
4-Nitroaniline	Ave	0.2936	0.2878	0.0100	9.80	10.0	-2.0	30.0
Fluorene	Ave	1.285	1.233	0.9000	9.59	10.0	-4.1	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1233	0.0100	19.0	20.0	-5.1	30.0
N-Nitrosodiphenylamine	Ave	0.5489	0.5659	0.0100	20.6	20.0	3.1	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.219	1.384		11.4	10.0	13.5	30.0
Azobenzene	Ave	1.218	1.384		11.4	10.0	13.6	30.0
4-Bromophenyl phenyl ether	Ave	0.1961	0.2162	0.1000	11.0	10.0	10.2	30.0
Atrazine	Ave	0.2026	0.2105	0.0100	20.8	20.0	3.9	30.0
Hexachlorobenzene	Ave	0.1847	0.1936	0.1000	10.5	10.0	4.8	30.0
n-Octadecane	Ave	0.5436	0.5550		10.2	10.0	2.1	30.0
Pentachlorophenol	Ave	0.1176	0.1329	0.0500	22.6	20.0	13.0	30.0
Phenanthrene	Ave	1.053	1.009	0.7000	9.59	10.0	-4.1	30.0
Anthracene	Ave	1.071	1.043	0.7000	9.74	10.0	-2.6	30.0
Carbazole	Ave	0.9386	0.9925	0.0100	10.6	10.0	5.7	30.0
Di-n-butyl phthalate	Ave	1.133	1.322	0.0100	11.7	10.0	16.7	30.0
Fluoranthene	Ave	1.169	1.280	0.6000	10.9	10.0	9.5	30.0
Benzidine	Lin1		0.5487		19.6	20.0	-1.8	30.0
Pyrene	Ave	1.057	1.070	0.6000	10.1	10.0	1.2	30.0
Butyl benzyl phthalate	Ave	0.4977	0.5158	0.0100	10.4	10.0	3.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.6862	0.6766	0.0100	9.86	10.0	-1.4	30.0
3,3'-Dichlorobenzidine	Ave	0.3423	0.3509	0.0100	20.5	20.0	2.5	30.0
Benzo[a]anthracene	Ave	1.110	1.103	0.8000	9.94	10.0	-0.6	30.0
Chrysene	Ave	1.020	1.041	0.7000	10.2	10.0	2.0	30.0
Di-n-octyl phthalate	Ave	1.437	1.442	0.0100	10.0	10.0	0.3	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-173591/11 Calibration Date: 03/25/2015 14:02

Instrument ID: A4HP9 Calib Start Date: 03/25/2015 09:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 03/25/2015 12:45

Lab File ID: 50325011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.174	1.144	0.7000	9.74	10.0	-2.6	30.0
Benzo[k]fluoranthene	Ave	1.217	1.222	0.7000	10.0	10.0	0.4	30.0
Benzo[a]pyrene	Ave	1.135	1.095	0.7000	9.65	10.0	-3.5	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.022	1.023	0.5000	10.0	10.0	0.0	30.0
Dibenz(a,h)anthracene	Ave	0.8378	0.8516	0.4000	10.2	10.0	1.7	30.0
Benzo[g,h,i]perylene	Ave	0.8352	0.8350	0.5000	10.0	10.0	-0.0	30.0
2-Fluorophenol (Surr)	Ave	1.550	1.648		10.6	10.0	6.3	30.0
Phenol-d5 (Surr)	Ave	2.209	2.326		10.5	10.0	5.3	30.0
Nitrobenzene-d5 (Surr)	Ave	0.7130	0.7421		10.4	10.0	4.1	30.0
2-Fluorobiphenyl (Surr)	Ave	1.322	1.381		10.4	10.0	4.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1380	0.1467		10.6	10.0	6.3	30.0
Terphenyl-d14 (Surr)	Ave	0.8012	0.8337		10.4	10.0	4.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175891/2 Calibration Date: 04/10/2015 08:11

Instrument ID: A4HP9 Calib Start Date: 03/25/2015 09:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 03/25/2015 12:45

Lab File ID: 50410002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7791	0.8179		10.5	10.0	5.0	20.0
N-Nitrosodimethylamine	Ave	1.376	1.359		9.88	10.0	-1.2	20.0
Pyridine	Ave	2.192	2.267		10.3	10.0	3.4	20.0
Benzaldehyde	Ave	1.627	1.421	0.0100	17.5	20.0	-12.7	20.0
Phenol	Ave	2.454	2.399	0.8000	9.78	10.0	-2.2	20.0
Aniline	Ave	3.008	2.947		9.80	10.0	-2.0	20.0
Bis(2-chloroethyl)ether	Ave	2.044	2.104	0.7000	10.3	10.0	2.9	20.0
2-Chlorophenol	Ave	1.380	1.405	0.8000	10.2	10.0	1.8	20.0
n-Decane	Ave	1.851	1.765		9.54	10.0	-4.6	20.0
1,3-Dichlorobenzene	Ave	1.495	1.523		10.2	10.0	1.9	20.0
1,4-Dichlorobenzene	Ave	1.533	1.525		9.95	10.0	-0.5	20.0
Benzyl alcohol	Ave	1.139	1.070		9.39	10.0	-6.1	20.0
1,2-Dichlorobenzene	Ave	1.440	1.446		10.0	10.0	0.4	20.0
2-Methylphenol	Ave	1.637	1.587	0.7000	9.69	10.0	-3.1	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.771	1.481		8.36	10.0	-16.4	20.0
Indene	Ave	2.847	2.792		19.6	20.0	-1.9	20.0
3 & 4 Methylphenol	Ave	1.695	1.636		9.65	10.0	-3.5	20.0
N-Nitrosodi-n-propylamine	Ave	1.747	1.723	0.5000	9.86	10.0	-1.4	20.0
Acetophenone	Ave	2.498	2.437	0.0100	9.76	10.0	-2.4	20.0
Hexachloroethane	Ave	0.7494	0.7630	0.3000	10.2	10.0	1.8	20.0
Nitrobenzene	Ave	0.6554	0.6609	0.2000	10.1	10.0	0.8	20.0
Isophorone	Ave	1.137	1.120	0.4000	9.85	10.0	-1.5	20.0
2-Nitrophenol	Ave	0.1753	0.1790	0.1000	10.2	10.0	2.1	20.0
2,4-Dimethylphenol	Ave	0.4883	0.5014	0.2000	10.3	10.0	2.7	20.0
Benzoic acid	Lin1		0.1837		18.5	20.0	-7.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.5942	0.5710	0.3000	9.61	10.0	-3.9	20.0
2,4-Dichlorophenol	Ave	0.2867	0.2937	0.2000	10.2	10.0	2.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3108	0.3189		10.3	10.0	2.6	20.0
Naphthalene	Ave	1.072	1.034	0.7000	9.64	10.0	-3.6	20.0
4-Chloroaniline	Ave	0.4745	0.4686	0.0100	9.87	10.0	-1.3	20.0
2,6-Dichlorophenol	Ave	0.2841	0.2882		10.1	10.0	1.4	20.0
Hexachlorobutadiene	Ave	0.2052	0.2150	0.0100	10.5	10.0	4.8	20.0
Caprolactam	Ave	0.1258	0.1287	0.0100	20.5	20.0	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.4180	0.4197	0.2000	10.0	10.0	0.4	20.0
2-Methylnaphthalene	Ave	0.6746	0.6499	0.4000	9.63	10.0	-3.7	20.0
1-Methylnaphthalene	Ave	0.5866	0.5647		9.63	10.0	-3.7	20.0
Hexachlorocyclopentadiene	Ave	0.3378	0.3390	0.0500	10.0	10.0	0.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5524	0.5419	0.0100	9.81	10.0	-1.9	20.0
2,4,6-Trichlorophenol	Ave	0.3696	0.3732	0.2000	10.1	10.0	1.0	20.0
2,4,5-Trichlorophenol	Ave	0.3856	0.3797	0.2000	9.85	10.0	-1.5	20.0
1,1'-Biphenyl	Ave	1.390	1.302	0.0100	9.37	10.0	-6.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175891/2 Calibration Date: 04/10/2015 08:11

Instrument ID: A4HP9 Calib Start Date: 03/25/2015 09:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 03/25/2015 12:45

Lab File ID: 50410002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.088	1.049	0.8000	9.64	10.0	-3.6	20.0
2-Nitroaniline	Ave	0.5784	0.5649	0.0100	9.77	10.0	-2.3	20.0
Dimethyl phthalate	Ave	1.241	1.188	0.0100	9.57	10.0	-4.3	20.0
1,3-Dinitrobenzene	Ave	0.1949	0.2069		10.6	10.0	6.2	20.0
2,6-Dinitrotoluene	Ave	0.2788	0.2797		10.0	10.0	0.3	20.0
Acenaphthylene	Ave	1.736	1.649	0.9000	9.50	10.0	-5.0	20.0
3-Nitroaniline	Ave	0.2991	0.2979	0.0100	9.96	10.0	-0.4	20.0
2,4-Dinitrophenol	Lin1		0.1549	0.0100	18.9	20.0	-5.7	20.0
Acenaphthene	Ave	1.121	1.039	0.9000	9.26	10.0	-7.4	20.0
4-Nitrophenol	Ave	0.2519	0.2766		22.0	20.0	9.8	20.0
2,4-Dinitrotoluene	Ave	0.3759	0.3856	0.2000	10.3	10.0	2.6	20.0
Dibenzofuran	Ave	1.529	1.424	0.8000	9.31	10.0	-6.9	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2982	0.3162	0.0100	10.6	10.0	6.0	20.0
Diethyl phthalate	Ave	1.242	1.159	0.0100	9.33	10.0	-6.7	20.0
Hexadecane	Ave	0.9760	0.8376		8.58	10.0	-14.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6303	0.6148	0.4000	9.75	10.0	-2.5	20.0
4-Nitroaniline	Ave	0.2936	0.3114	0.0100	10.6	10.0	6.0	20.0
Fluorene	Ave	1.285	1.177	0.9000	9.16	10.0	-8.4	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1209	0.0100	18.6	20.0	-6.9	20.0
N-Nitrosodiphenylamine	Ave	0.5489	0.5099	0.0100	18.6	20.0	-7.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.219	1.110		9.11	10.0	-8.9	20.0
Azobenzene	Ave	1.218	1.110		9.11	10.0	-8.9	20.0
4-Bromophenyl phenyl ether	Ave	0.1961	0.1954	0.1000	9.97	10.0	-0.3	20.0
Hexachlorobenzene	Ave	0.1847	0.1750	0.1000	9.48	10.0	-5.2	20.0
Atrazine	Ave	0.2026	0.2103	0.0100	20.8	20.0	3.8	20.0
n-Octadecane	Ave	0.5436	0.5075		9.34	10.0	-6.6	20.0
Pentachlorophenol	Ave	0.1176	0.1179	0.0500	20.0	20.0	0.2	20.0
Phenanthrene	Ave	1.053	1.017	0.7000	9.66	10.0	-3.4	20.0
Anthracene	Ave	1.071	1.031	0.7000	9.63	10.0	-3.7	20.0
Carbazole	Ave	0.9386	0.9263	0.0100	9.87	10.0	-1.3	20.0
Di-n-butyl phthalate	Ave	1.133	1.196	0.0100	10.6	10.0	5.5	20.0
Fluoranthene	Ave	1.169	1.199	0.6000	10.3	10.0	2.6	20.0
Benzidine	Lin1		0.5370		19.2	20.0	-3.9	20.0
Pyrene	Ave	1.057	1.063	0.6000	10.1	10.0	0.5	20.0
Butyl benzyl phthalate	Ave	0.4977	0.4927	0.0100	9.90	10.0	-1.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.6862	0.6923	0.0100	10.1	10.0	0.9	20.0
3,3'-Dichlorobenzidine	Ave	0.3423	0.3638	0.0100	21.3	20.0	6.3	20.0
Benzo[a]anthracene	Ave	1.110	1.089	0.8000	9.81	10.0	-1.9	20.0
Chrysene	Ave	1.020	1.021	0.7000	10.0	10.0	0.1	20.0
Di-n-octyl phthalate	Ave	1.437	1.396	0.0100	9.71	10.0	-2.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175891/2 Calibration Date: 04/10/2015 08:11

Instrument ID: A4HP9 Calib Start Date: 03/25/2015 09:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 03/25/2015 12:45

Lab File ID: 50410002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.174	1.160	0.7000	9.88	10.0	-1.2	20.0
Benzo[k]fluoranthene	Ave	1.217	1.211	0.7000	9.95	10.0	-0.5	20.0
Benzo[a]pyrene	Ave	1.135	1.138	0.7000	10.0	10.0	0.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.022	1.149	0.5000	11.2	10.0	12.4	20.0
Dibenz(a,h)anthracene	Ave	0.8378	0.9493	0.4000	11.3	10.0	13.3	20.0
Benzo[g,h,i]perylene	Ave	0.8352	0.9698	0.5000	11.6	10.0	16.1	20.0
2-Fluorophenol (Surr)	Ave	1.550	1.559		10.1	10.0	0.6	20.0
Phenol-d5 (Surr)	Ave	2.209	2.203		9.97	10.0	-0.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.7130	0.6987		9.80	10.0	-2.0	20.0
2-Fluorobiphenyl (Surr)	Ave	1.322	1.254		9.48	10.0	-5.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1380	0.1486		10.8	10.0	7.7	20.0
Terphenyl-d14 (Surr)	Ave	0.8012	0.7662		9.56	10.0	-4.4	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175545/18-A

Matrix: Solid | Lab File ID: 50410005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 30(g) | Date Analyzed: 04/10/2015 09:27

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	3.5	U	50	3.5
123-91-1	1,4-Dioxane	22	U	100	22
88-06-2	2,4,6-Trichlorophenol	8.9	U	150	8.9
95-95-4	2,4,5-Trichlorophenol	25	U	150	25
120-83-2	2,4-Dichlorophenol	20	U	150	20
105-67-9	2,4-Dimethylphenol	20	U	150	20
51-28-5	2,4-Dinitrophenol	21	U	330	21
121-14-2	2,4-Dinitrotoluene	17	U	200	17
91-58-7	2-Chloronaphthalene	0.45	U	50	0.45
95-57-8	2-Chlorophenol	8.2	U	50	8.2
91-57-6	2-Methylnaphthalene	0.50	U	6.7	0.50
95-48-7	2-Methylphenol	11	U	200	11
88-74-4	2-Nitroaniline	9.1	U	200	9.1
88-75-5	2-Nitrophenol	8.3	U	50	8.3
15831-10-4	3 & 4 Methylphenol	20	U	400	20
91-94-1	3,3'-Dichlorobenzidine	18	U	100	18
99-09-2	3-Nitroaniline	16	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	9.2	U	150	9.2
101-55-3	4-Bromophenyl phenyl ether	13	U	50	13
59-50-7	4-Chloro-3-methylphenol	21	U	150	21
106-47-8	4-Chloroaniline	17	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	13	U	50	13
100-01-6	4-Nitroaniline	26	U	200	26
83-32-9	Acenaphthene	0.76	U	6.7	0.76
208-96-8	Acenaphthylene	0.35	U	6.7	0.35
98-86-2	Acetophenone	9.2	U	100	9.2
120-12-7	Anthracene	0.78	U	6.7	0.78
1912-24-9	Atrazine	9.1	U	200	9.1
100-52-7	Benzaldehyde	12	U	100	12
56-55-3	Benzo[a]anthracene	0.63	U	6.7	0.63
50-32-8	Benzo[a]pyrene	0.64	U	6.7	0.64
205-99-2	Benzo[b]fluoranthene	0.59	U	6.7	0.59
191-24-2	Benzo[g,h,i]perylene	0.35	U	6.7	0.35
207-08-9	Benzo[k]fluoranthene	0.68	U	6.7	0.68

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175545/18-A

Matrix: Solid | Lab File ID: 50410005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 30(g) | Date Analyzed: 04/10/2015 09:27

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	22	U	100	22
111-44-4	Bis(2-chloroethyl)ether	2.0	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	91.6		70	19
85-68-7	Butyl benzyl phthalate	10	U	70	10
105-60-2	Caprolactam	37	U	330	37
86-74-8	Carbazole	27	U	50	27
218-01-9	Chrysene	1.1	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	15	U	70	15
117-84-0	Di-n-octyl phthalate	7.9	U	70	7.9
53-70-3	Dibenz(a,h)anthracene	0.66	U	6.7	0.66
132-64-9	Dibenzofuran	0.66	U	50	0.66
84-66-2	Diethyl phthalate	16	U	70	16
131-11-3	Dimethyl phthalate	17	U	70	17
206-44-0	Fluoranthene	0.55	U	6.7	0.55
86-73-7	Fluorene	0.53	U	6.7	0.53
118-74-1	Hexachlorobenzene	2.1	U	6.7	2.1
87-68-3	Hexachlorobutadiene	5.6	U	50	5.6
77-47-4	Hexachlorocyclopentadiene	8.1	U	330	8.1
67-72-1	Hexachloroethane	9.0	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	0.35	U	6.7	0.35
78-59-1	Isophorone	13	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	6.3	U	50	6.3
62-75-9	N-Nitrosodimethylamine	16	U	100	16
86-30-6	N-Nitrosodiphenylamine	21	U	50	21
91-20-3	Naphthalene	0.82	U	6.7	0.82
98-95-3	Nitrobenzene	2.2	U	100	2.2
87-86-5	Pentachlorophenol	9.1	U	150	9.1
85-01-8	Phenanthrene	0.73	U	6.7	0.73
108-95-2	Phenol	7.3	U	50	7.3
129-00-0	Pyrene	0.44	U	6.7	0.44
108-60-1	2,2'-oxybis[1-chloropropane]	9.5	U	100	9.5
606-20-2	2,6-Dinitrotoluene	21	U	200	21
100-02-7	4-Nitrophenol	17	U	330	17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175545/18-A

Matrix: Solid | Lab File ID: 50410005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 30(g) | Date Analyzed: 04/10/2015 09:27

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		36-110
4165-62-2	Phenol-d5 (Surr)	81		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	75		20-110
367-12-4	2-Fluorophenol (Surr)	77		24-110
321-60-8	2-Fluorobiphenyl (Surr)	82		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	42		10-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-175545/19-A

Matrix: Solid | Lab File ID: 50410006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 30(g) | Date Analyzed: 04/10/2015 09:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	532		50	3.5
123-91-1	1,4-Dioxane	336		100	22
88-06-2	2,4,6-Trichlorophenol	491		150	8.9
95-95-4	2,4,5-Trichlorophenol	479		150	25
120-83-2	2,4-Dichlorophenol	557		150	20
105-67-9	2,4-Dimethylphenol	427		150	20
51-28-5	2,4-Dinitrophenol	577		330	21
121-14-2	2,4-Dinitrotoluene	584		200	17
91-58-7	2-Chloronaphthalene	551		50	0.45
95-57-8	2-Chlorophenol	546		50	8.2
91-57-6	2-Methylnaphthalene	539		6.7	0.50
95-48-7	2-Methylphenol	515		200	11
88-74-4	2-Nitroaniline	560		200	9.1
88-75-5	2-Nitrophenol	570		50	8.3
15831-10-4	3 & 4 Methylphenol	544		400	20
91-94-1	3,3'-Dichlorobenzidine	1040		100	18
99-09-2	3-Nitroaniline	563		200	16
534-52-1	4,6-Dinitro-2-methylphenol	811		150	9.2
101-55-3	4-Bromophenyl phenyl ether	566		50	13
59-50-7	4-Chloro-3-methylphenol	552		150	21
106-47-8	4-Chloroaniline	489		150	17
7005-72-3	4-Chlorophenyl phenyl ether	541		50	13
100-01-6	4-Nitroaniline	560		200	26
83-32-9	Acenaphthene	529		6.7	0.76
208-96-8	Acenaphthylene	509		6.7	0.35
98-86-2	Acetophenone	545		100	9.2
120-12-7	Anthracene	525		6.7	0.78
1912-24-9	Atrazine	1060		200	9.1
100-52-7	Benzaldehyde	1290		100	12
56-55-3	Benzo[a]anthracene	527		6.7	0.63
50-32-8	Benzo[a]pyrene	533		6.7	0.64
205-99-2	Benzo[b]fluoranthene	521		6.7	0.59
191-24-2	Benzo[g,h,i]perylene	625		6.7	0.35
207-08-9	Benzo[k]fluoranthene	573		6.7	0.68

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-175545/19-A

Matrix: Solid | Lab File ID: 50410006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 30(g) | Date Analyzed: 04/10/2015 09:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	557		100	22
111-44-4	Bis(2-chloroethyl)ether	540		100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	576		70	19
85-68-7	Butyl benzyl phthalate	524		70	10
105-60-2	Caprolactam	1230		330	37
86-74-8	Carbazole	549		50	27
218-01-9	Chrysene	568		6.7	1.1
84-74-2	Di-n-butyl phthalate	584		70	15
117-84-0	Di-n-octyl phthalate	524		70	7.9
53-70-3	Dibenz(a,h)anthracene	593		6.7	0.66
132-64-9	Dibenzofuran	540		50	0.66
84-66-2	Diethyl phthalate	543		70	16
131-11-3	Dimethyl phthalate	557		70	17
206-44-0	Fluoranthene	561		6.7	0.55
86-73-7	Fluorene	512		6.7	0.53
118-74-1	Hexachlorobenzene	535		6.7	2.1
87-68-3	Hexachlorobutadiene	580		50	5.6
77-47-4	Hexachlorocyclopentadiene	379		330	8.1
67-72-1	Hexachloroethane	533		50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	602		6.7	0.35
78-59-1	Isophorone	545		50	13
621-64-7	N-Nitrosodi-n-propylamine	563		50	6.3
62-75-9	N-Nitrosodimethylamine	536		100	16
86-30-6	N-Nitrosodiphenylamine	1000		50	21
91-20-3	Naphthalene	527		6.7	0.82
98-95-3	Nitrobenzene	560		100	2.2
87-86-5	Pentachlorophenol	755		150	9.1
85-01-8	Phenanthrene	522		6.7	0.73
108-95-2	Phenol	559		50	7.3
129-00-0	Pyrene	549		6.7	0.44
108-60-1	2,2'-oxybis[1-chloropropane]	491		100	9.5
606-20-2	2,6-Dinitrotoluene	584		200	21
100-02-7	4-Nitrophenol	1140		330	17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-175545/19-A

Matrix: Solid | Lab File ID: 50410006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 04/08/2015 09:16

Sample wt/vol: 30(g) | Date Analyzed: 04/10/2015 09:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175891 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		36-110
4165-62-2	Phenol-d5 (Surr)	85		26-110
4165-60-0	Nitrobenzene-d5 (Surr)	83		20-110
367-12-4	2-Fluorophenol (Surr)	83		24-110
321-60-8	2-Fluorobiphenyl (Surr)	82		24-110
118-79-6	2,4,6-Tribromophenol (Surr)	72		10-110

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A4HP9 Start Date: 03/25/2015 09:02

Analysis Batch Number: 173591 End Date: 03/25/2015 18:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-173591/1		03/25/2015 09:02	1	50325001.D	RXI-5SILMS 0.45(mm)
STD5 240-173591/2 IC		03/25/2015 09:23	1	50325002.D	RXI-5SILMS 0.45(mm)
STD4 240-173591/3 IC		03/25/2015 09:48	1	50325003.D	RXI-5SILMS 0.45(mm)
STD3 240-173591/4 IC		03/25/2015 10:13	1	50325004.D	RXI-5SILMS 0.45(mm)
STD2 240-173591/5 IC		03/25/2015 10:38	1	50325005.D	RXI-5SILMS 0.45(mm)
STD1 240-173591/6 IC		03/25/2015 11:04	1	50325006.D	RXI-5SILMS 0.45(mm)
STD9 240-173591/7 IC		03/25/2015 11:29	1	50325007.D	RXI-5SILMS 0.45(mm)
STD8 240-173591/8 IC		03/25/2015 11:54	1	50325008.D	RXI-5SILMS 0.45(mm)
STD7 240-173591/9 IC		03/25/2015 12:20	1	50325009.D	RXI-5SILMS 0.45(mm)
STD6 240-173591/10 ICIS		03/25/2015 12:45	1	50325010.D	RXI-5SILMS 0.45(mm)
ICV 240-173591/11		03/25/2015 14:02	1	50325011.D	RXI-5SILMS 0.45(mm)
STD5 240-173591/12 IC		03/25/2015 14:53	1		RXI-5SILMS 0.45(mm)
STD4 240-173591/13 IC		03/25/2015 15:18	1		RXI-5SILMS 0.45(mm)
STD3 240-173591/14 IC		03/25/2015 15:43	1		RXI-5SILMS 0.45(mm)
STD2 240-173591/15 IC		03/25/2015 16:08	1		RXI-5SILMS 0.45(mm)
STD6 240-173591/16 IC		03/25/2015 16:33	1		RXI-5SILMS 0.45(mm)
STD7 240-173591/17 IC		03/25/2015 16:58	1		RXI-5SILMS 0.45(mm)
STD8 240-173591/18 IC		03/25/2015 17:24	1		RXI-5SILMS 0.45(mm)
STD9 240-173591/19 IC		03/25/2015 17:50	1		RXI-5SILMS 0.45(mm)
ICV 240-173591/20		03/25/2015 18:15	1		RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A4HP9 Start Date: 04/10/2015 07:50

Analysis Batch Number: 175891 End Date: 04/10/2015 16:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-175891/1		04/10/2015 07:50	1	50410001.D	RXI-5SILMS 0.45(mm)
CCV 240-175891/2 CCVIS		04/10/2015 08:11	1	50410002.D	RXI-5SILMS 0.45(mm)
MB 240-175545/18-A		04/10/2015 09:27	1	50410005.D	RXI-5SILMS 0.45(mm)
LCS 240-175545/19-A		04/10/2015 09:52	1	50410006.D	RXI-5SILMS 0.45(mm)
240-49010-1	FILL-001	04/10/2015 16:57	1	50410023.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175545 Batch Start Date: 04/08/15 11:15 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 04/09/15 03:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBenzaldehyd 00019	EXBNASPIKE 00038	EXBNASURR W 00021	
240-49010-E-1	FILL-001	3540C, 8270D	T	29.69 g	2 mL			1 mL	
MB 240-175545/18		3540C, 8270D		30 g	2 mL			1 mL	
LCS 240-175545/19		3540C, 8270D		30 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	b037
Na2SO4 Lot Number	1942694
Prep Solvent Lot #	1937120

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8015C - GRO

Nonhalogenated Organics using GC/FID - Modified (Gasoline Range Organics) by Method 8015C

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
FILL-001	240-49010-1	86
	MB 240-175570/1-A	81
	LCS 240-175570/2-A	100
	180-42592-G-10-C MS	81
	180-42592-G-10-D MSD	90

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-139

Column to be used to flag recovery values

FORM II 8015C

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Y0040826.D

Lab ID: LCS 240-175570/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	769	96	74-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Y0040828.D

Lab ID: 180-42592-G-10-C MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	928	54 U	587	63	10-136	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Y0040829.D

Lab ID: 180-42592-G-10-D MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	930	624	67	6	40	10-136	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: MB 240-175570/1-A

Matrix: Solid Date Extracted: 04/08/2015 11:04

Lab File ID:(1) Y0040825.D Lab File ID:(2)

Date Analyzed:(1) 04/09/2015 01:56 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-175570/2-A	04/09/2015 02:31	
	180-42592-G-10-C MS	04/09/2015 03:40	
	180-42592-G-10-D MSD	04/09/2015 04:14	
FILL-001	240-49010-1	04/09/2015 06:34	

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCVRT 240-175575/4 Date Analyzed: 04/08/2015 13:42

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): Y0040804.D Heated Purge: (Y/N) N

Calibration ID: 27484

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.70		
UPPER LIMIT				9.80		
LOWER LIMIT				9.60		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-175575/4		04/08/2015 13:42	Y0040804.D	9.70		
CCV 240-175575/16		04/08/2015 20:42	Y0040816.D	9.70		
CCV 240-175575/19		04/08/2015 22:27	Y0040819.D	9.70		
CCV 240-175575/24		04/09/2015 01:22	Y0040824.D	9.70		
MB 240-175570/1-A		04/09/2015 01:56	Y0040825.D	9.70		
LCS 240-175570/2-A		04/09/2015 02:31	Y0040826.D	9.70		
180-42592-G-10-C MS		04/09/2015 03:40	Y0040828.D	9.70		
180-42592-G-10-D MSD		04/09/2015 04:14	Y0040829.D	9.70		
240-49010-1	FILL-001	04/09/2015 06:34	Y0040833.D	9.69		
CCV 240-175575/34		04/09/2015 07:10	Y0040834.D	9.70		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 Lab Sample ID: 240-49010-1

Matrix: Solid Lab File ID: Y0040833.D

Analysis Method: 8015C Date Collected: 04/06/2015 15:00

Sample wt/vol: 5.01(g) Date Analyzed: 04/09/2015 06:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 7.4 Level: (low/med) Low

Analysis Batch No.: 175575 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	50	U	110	50

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	86		40-139

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173250

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/23/2015 18:47 Calibration End Date: 03/23/2015 21:37 Calibration ID: 27484

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-173250/10	Y0032310.D
Level 2	STD2 240-173250/11	Y0032311.D
Level 3	STD3 240-173250/12	Y0032312.D
Level 4	STD4 240-173250/13	Y0032313.D
Level 5	STD5 240-173250/14	Y0032314.D
Level 6	STD6 240-173250/15	Y0032315.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.827	11.827	11.827	11.827	11.827	11.827					4.796 - 18.770	11.827
C6-C12	13.373	13.373	13.373	13.373	13.373	13.373					4.796 - 21.951	13.373
Trifluorotoluene (Surr)	9.684	9.683	9.683	9.684	9.686	9.686					9.428 - 9.928	9.684

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173250

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/23/2015 18:47 Calibration End Date: 03/23/2015 21:37 Calibration ID: 27484

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-173250/10	Y0032310.D
Level 2	STD2 240-173250/11	Y0032311.D
Level 3	STD3 240-173250/12	Y0032312.D
Level 4	STD4 240-173250/13	Y0032313.D
Level 5	STD5 240-173250/14	Y0032314.D
Level 6	STD6 240-173250/15	Y0032315.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	203039 175002	170499 172061	173004	178192	Ave		178632.950				6.9		20.0			
C6-C12	236409 188809	184468 185735	185973	192735	Ave		195688.116				10.3		20.0			
Trifluorotoluene (Surr)	259469 156749	179692 154231	159082	155856	Lin	59087.1617	153009.625							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 173250

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/23/2015 18:47 Calibration End Date: 03/23/2015 21:37 Calibration ID: 27484

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-173250/10	Y0032310.D
Level 2	STD2 240-173250/11	Y0032311.D
Level 3	STD3 240-173250/12	Y0032312.D
Level 4	STD4 240-173250/13	Y0032313.D
Level 5	STD5 240-173250/14	Y0032314.D
Level 6	STD6 240-173250/15	Y0032315.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	20303903 275298222	34099766	69201482	142553985	210002721	100 1600	200	400	800	1200
C6-C12	Ave	23640917 297175327	36893595	74389047	154188281	226570801	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Lin	259469 7711566	359383	795412	1558556	3134984	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-173250/16 Calibration Date: 03/23/2015 22:10

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0032316.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	178633	152372		682	800	-14.7	20.0
C6-C12	Ave	195688	166099		679	800	-15.1	20.0
Trifluorotoluene (Surr)	Lin		160783		10.1	10.0	1.2	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-173250/16 Calibration Date: 03/23/2015 22:10

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0032316.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.03	4.80	18.77
C6-C12	13.62	4.80	21.95
Trifluorotoluene (Surr)	9.69	9.43	9.93

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVRT 240-175575/4 Calibration Date: 04/08/2015 13:42

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	178633	175185		843	800	-1.9	20.0
C6-C12	Ave	195688	192193		838	800	-1.8	20.0
Trifluorotoluene (Surr)	Lin		152845		9.60	10.0	-4.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCVRT 240-175575/4 Calibration Date: 04/08/2015 13:42

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040804.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.80	4.82	18.77
C6-C12	13.39	4.82	21.96
Trifluorotoluene (Surr)	9.70	9.45	9.95

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/16 Calibration Date: 04/08/2015 20:42

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040816.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	178633	172144		829	800	-3.6	20.0
C6-C12	Ave	195688	189985		828	800	-2.9	20.0
Trifluorotoluene (Surr)	Lin		153146		9.62	10.0	-3.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/16 Calibration Date: 04/08/2015 20:42

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040816.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.80	4.82	18.77
C6-C12	13.39	4.82	21.96
Trifluorotoluene (Surr)	9.70	9.45	9.95

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/19 Calibration Date: 04/08/2015 22:27

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040819.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	178633	175830		846	800	-1.6	20.0
C6-C12	Ave	195688	191517		835	800	-2.1	20.0
Trifluorotoluene (Surr)	Lin		144947		9.09	10.0	-9.1	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/19 Calibration Date: 04/08/2015 22:27

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040819.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.80	4.82	18.77
C6-C12	13.39	4.82	21.96
Trifluorotoluene (Surr)	9.70	9.45	9.95

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/24 Calibration Date: 04/09/2015 01:22

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040824.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	178633	165050		795	800	-7.6	20.0
C6-C12	Ave	195688	185942		810	800	-5.0	20.0
Trifluorotoluene (Surr)	Lin		139018		8.70	10.0	-13.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/24 Calibration Date: 04/09/2015 01:22

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040824.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.80	4.82	18.77
C6-C12	13.39	4.82	21.96
Trifluorotoluene (Surr)	9.70	9.45	9.95

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/34 Calibration Date: 04/09/2015 07:10

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040834.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	178633	168193		810	800	-5.8	20.0
C6-C12	Ave	195688	189132		824	800	-3.4	20.0
Trifluorotoluene (Surr)	Lin		146192		9.17	10.0	-8.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175575/34 Calibration Date: 04/09/2015 07:10

Instrument ID: YPID Calib Start Date: 03/23/2015 18:47

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 03/23/2015 21:37

Lab File ID: Y0040834.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.80	4.82	18.77
C6-C12	13.39	4.82	21.96
Trifluorotoluene (Surr)	9.70	9.45	9.95

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-175570/1-A

Matrix: Solid Lab File ID: Y0040825.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 04/09/2015 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175575 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	46	U	100	46

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	81		40-139

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175570/2-A

Matrix: Solid Lab File ID: Y0040826.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 04/09/2015 02:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 175575 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	769		100	46

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	100		40-139

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: 180-42592-G-10-C MS

Matrix: Solid Lab File ID: Y0040828.D

Analysis Method: 8015C Date Collected: 03/31/2015 10:25

Sample wt/vol: 5.05(g) Date Analyzed: 04/09/2015 03:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 14.6 Level: (low/med) Low

Analysis Batch No.: 175575 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	587		120	53

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	81		40-139

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: 180-42592-G-10-D MSD

Matrix: Solid Lab File ID: Y0040829.D

Analysis Method: 8015C Date Collected: 03/31/2015 10:25

Sample wt/vol: 5.04(g) Date Analyzed: 04/09/2015 04:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: 14.6 Level: (low/med) Low

Analysis Batch No.: 175575 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	624		120	53

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	90		40-139

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: YPID Start Date: 03/23/2015 13:44

Analysis Batch Number: 173250 End Date: 03/23/2015 22:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-173250/1 IC		03/23/2015 13:44	1		RTX-VRX 0.45(mm)
STD2 240-173250/2 IC		03/23/2015 14:18	1		RTX-VRX 0.45(mm)
STD3 240-173250/3 IC		03/23/2015 14:52	1		RTX-VRX 0.45(mm)
STD4 240-173250/4 ICRT		03/23/2015 15:25	1		RTX-VRX 0.45(mm)
STD5 240-173250/5 IC		03/23/2015 15:58	1		RTX-VRX 0.45(mm)
STD6 240-173250/6 IC		03/23/2015 16:32	1		RTX-VRX 0.45(mm)
STD1 240-173250/10 IC		03/23/2015 18:47	1	Y0032310.D	RTX-VRX 0.45(mm)
STD2 240-173250/11 IC		03/23/2015 19:21	1	Y0032311.D	RTX-VRX 0.45(mm)
STD3 240-173250/12 IC		03/23/2015 19:54	1	Y0032312.D	RTX-VRX 0.45(mm)
STD4 240-173250/13 IC		03/23/2015 20:28	1	Y0032313.D	RTX-VRX 0.45(mm)
STD5 240-173250/14 IC		03/23/2015 21:01	1	Y0032314.D	RTX-VRX 0.45(mm)
STD6 240-173250/15 IC		03/23/2015 21:37	1	Y0032315.D	RTX-VRX 0.45(mm)
ICV 240-173250/16		03/23/2015 22:10	1	Y0032316.D	RTX-VRX 0.45(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: YPID Start Date: 04/08/2015 13:42

Analysis Batch Number: 175575 End Date: 04/09/2015 07:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-175575/4		04/08/2015 13:42	1	Y0040804.D	RTX-VRX 0.45(mm)
ZZZZZ		04/08/2015 14:18	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2015 14:52	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2015 16:39	1		RTX-VRX 0.45(mm)
CCV 240-175575/16		04/08/2015 20:42	1	Y0040816.D	RTX-VRX 0.45(mm)
CCV 240-175575/19		04/08/2015 22:27	1	Y0040819.D	RTX-VRX 0.45(mm)
CCV 240-175575/24		04/09/2015 01:22	1	Y0040824.D	RTX-VRX 0.45(mm)
MB 240-175570/1-A		04/09/2015 01:56	1	Y0040825.D	RTX-VRX 0.45(mm)
LCS 240-175570/2-A		04/09/2015 02:31	1	Y0040826.D	RTX-VRX 0.45(mm)
ZZZZZ		04/09/2015 03:05	1		RTX-VRX 0.45(mm)
180-42592-G-10-C MS		04/09/2015 03:40	1	Y0040828.D	RTX-VRX 0.45(mm)
180-42592-G-10-D MSD		04/09/2015 04:14	1	Y0040829.D	RTX-VRX 0.45(mm)
240-49010-1	FILL-001	04/09/2015 06:34	1	Y0040833.D	RTX-VRX 0.45(mm)
CCV 240-175575/34		04/09/2015 07:10	1	Y0040834.D	RTX-VRX 0.45(mm)

GC VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175570 Batch Start Date: 04/08/15 11:04 Batch Analyst: Reed, Rachel T

Batch Method: 5030A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 240-175570/1		5030A, 8015C		5 g	5 mL				
LCS 240-175570/2		5030A, 8015C		5 g	5 mL				
180-42592-G-10 MS		5030A, 8015C	T	5.05 g	5 mL				
180-42592-G-10 MSD		5030A, 8015C	T	5.04 g	5 mL				
240-49010-C-1	FILL-001	5030A, 8015C	T	5.01 g	5 mL				

Batch Notes	
Balance ID	B045
Blank Soil Lot Number	1757979

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8015C - DRO

Nonhalogenated Organics using GC/FID - Modified (Diesel Range Organics) by Method 8015C

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	OTPH1 #
FILL-001	240-49010-1	100
	MB 240-175550/7-A	92
	LCS 240-175550/8-A	87
FILL-001 MS	240-49010-1 MS	93
FILL-001 MSD	240-49010-1 MSD	87

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5F40917.D

Lab ID: LCS 240-175550/8-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	70.4	85	52-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5F40921.D

Lab ID: 240-49010-1 MS Client ID: FILL-001 MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
Diesel	88.9	9.1 J	74.4	73	10-124	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5F40922.D

Lab ID: 240-49010-1 MSD Client ID: FILL-001 MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diesel	89.1	68.3	66	9	40	10-124	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: MB 240-175550/7-A

Matrix: Solid Date Extracted: 04/08/2015 09:35

Lab File ID:(1) P5F40916.D Lab File ID:(2)

Date Analyzed:(1) 04/09/2015 22:23 Date Analyzed:(2)

Instrument ID:(1) A2HP5F Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-175550/8-A	04/09/2015 22:53	
FILL-001	240-49010-1	04/10/2015 00:24	
FILL-001 MS	240-49010-1 MS	04/10/2015 00:55	
FILL-001 MSD	240-49010-1 MSD	04/10/2015 01:25	

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: STD3 240-172821/9 Date Analyzed: 03/19/2015 16:13

Instrument ID: A2HP5F GC Column: ID: ()

Lab File ID (Standard): P5F31909.D Heated Purge: (Y/N) N

Calibration ID: 27446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				9.63		
UPPER LIMIT				9.73		
LOWER LIMIT				9.53		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-172821/9 ICRT		03/19/2015 16:13	P5F31909.D	9.63		

Column used to flag values outside QC limits

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCV 240-175823/7 Date Analyzed: 04/09/2015 17:50

Instrument ID: A2HP5F GC Column: ID: ()

Lab File ID (Standard): P5F40907.D Heated Purge: (Y/N) N

Calibration ID: 27446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.63		
UPPER LIMIT				9.73		
LOWER LIMIT				9.53		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-175823/7 CCVRT		04/09/2015 17:50	P5F40907.D	9.63		
CCV 240-175823/15		04/09/2015 21:53	P5F40915.D	9.63		
MB 240-175550/7-A		04/09/2015 22:23	P5F40916.D	9.63		
LCS 240-175550/8-A		04/09/2015 22:53	P5F40917.D	9.63		
240-49010-1	FILL-001	04/10/2015 00:24	P5F40920.D	9.63		
240-49010-1 MS	FILL-001 MS	04/10/2015 00:55	P5F40921.D	9.63		
240-49010-1 MSD	FILL-001 MSD	04/10/2015 01:25	P5F40922.D	9.63		
CCV 240-175823/24		04/10/2015 02:25	P5F40924.D	9.63		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 | Lab Sample ID: 240-49010-1

Matrix: Solid | Lab File ID: P5F40920.D

Analysis Method: 8015C | Date Collected: 04/06/2015 15:00

Extraction Method: 3540C | Date Extracted: 04/08/2015 09:35

Sample wt/vol: 30.15(g) | Date Analyzed: 04/10/2015 00:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: | ID:

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175823 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	18		18	4.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	100		40-160

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 172821

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2015 15:12 Calibration End Date: 03/19/2015 17:14 Calibration ID: 27446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-172821/7	P5F31907.D
Level 2	STD2 240-172821/8	P5F31908.D
Level 3	STD3 240-172821/9	P5F31909.D
Level 4	STD4 240-172821/10	P5F31910.D
Level 5	STD5 240-172821/11	P5F31911.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	9.083	9.083	9.083	9.083	9.083						4.821 - 13.346	9.083
o-Terphenyl (Surr)	9.628	9.627	9.629	9.629	9.632						9.528 - 9.728	9.629

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 172821

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2015 15:12 Calibration End Date: 03/19/2015 17:14 Calibration ID: 27446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-172821/7	P5F31907.D
Level 2	STD2 240-172821/8	P5F31908.D
Level 3	STD3 240-172821/9	P5F31909.D
Level 4	STD4 240-172821/10	P5F31910.D
Level 5	STD5 240-172821/11	P5F31911.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	200489 180936	168876	178835	174683	Ave		180763.985				6.6		20.0			
o-Terphenyl (Surr)	209643 203361	196532	195628	193881	Ave		199808.935				3.3		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 172821

SDG No.:

Instrument ID: A2HP5F GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2015 15:12 Calibration End Date: 03/19/2015 17:14 Calibration ID: 27446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-172821/7	P5F31907.D
Level 2	STD2 240-172821/8	P5F31908.D
Level 3	STD3 240-172821/9	P5F31909.D
Level 4	STD4 240-172821/10	P5F31910.D
Level 5	STD5 240-172821/11	P5F31911.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	20053866	33783672	89439711	174726263	361962738	100	200	500	1000	2000
o-Terphenyl (Surr)	Ave	1677144	3144512	7825122	15510468	32537724	8.00	16.0	40.0	80.0	160

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-172821/12 Calibration Date: 03/19/2015 17:44

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F31912.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	180764	190352		528	501	5.3	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-172821/12 Calibration Date: 03/19/2015 17:44

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F31912.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.08	4.82	13.35

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175823/7 Calibration Date: 04/09/2015 17:50

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F40907.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	180764	186581		516	500	3.2	20.0
o-Terphenyl (Surr)	Ave	199809	235931		47.2	40.0	18.1	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175823/7 Calibration Date: 04/09/2015 17:50

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F40907.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.09	4.83	13.35
o-Terphenyl (Surr)	9.63	9.53	9.73

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175823/15 Calibration Date: 04/09/2015 21:53

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F40915.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	180764	205783		569	500	13.8	20.0
o-Terphenyl (Surr)	Ave	199809	260828		52.2	40.0	30.5*	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175823/15 Calibration Date: 04/09/2015 21:53

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F40915.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.09	4.83	13.35
o-Terphenyl (Surr)	9.63	9.53	9.73

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175823/24 Calibration Date: 04/10/2015 02:25

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F40924.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	180764	196664		544	500	8.8	20.0
o-Terphenyl (Surr)	Ave	199809	255621		51.2	40.0	27.9*	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175823/24 Calibration Date: 04/10/2015 02:25

Instrument ID: A2HP5F Calib Start Date: 03/19/2015 15:12

GC Column: ID: Calib End Date: 03/19/2015 17:14

Lab File ID: P5F40924.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	9.09	4.83	13.35
o-Terphenyl (Surr)	9.63	9.53	9.73

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-175550/7-A

Matrix: Solid | Lab File ID: P5F40916.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3540C | Date Extracted: 04/08/2015 09:35

Sample wt/vol: 30(g) | Date Analyzed: 04/09/2015 22:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: | ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175823 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	4.1	U	17	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	92		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175550/8-A

Matrix: Solid Lab File ID: P5F40917.D

Analysis Method: 8015C Date Collected:

Extraction Method: 3540C Date Extracted: 04/08/2015 09:35

Sample wt/vol: 30(g) Date Analyzed: 04/09/2015 22:53

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 175823 Units: mg/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	87		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MS | Lab Sample ID: 240-49010-1 MS

Matrix: Solid | Lab File ID: P5F40921.D

Analysis Method: 8015C | Date Collected: 04/06/2015 15:00

Extraction Method: 3540C | Date Extracted: 04/08/2015 09:35

Sample wt/vol: 30.38(g) | Date Analyzed: 04/10/2015 00:55

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: | ID:

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175823 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	77.9		18	4.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	93		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 MSD | Lab Sample ID: 240-49010-1 MSD

Matrix: Solid | Lab File ID: P5F40922.D

Analysis Method: 8015C | Date Collected: 04/06/2015 15:00

Extraction Method: 3540C | Date Extracted: 04/08/2015 09:35

Sample wt/vol: 30.29(g) | Date Analyzed: 04/10/2015 01:25

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: | ID:

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 175823 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	71.5		18	4.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	87		40-160

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP5F Start Date: 03/19/2015 15:12

Analysis Batch Number: 172821 End Date: 03/20/2015 12:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-172821/7 IC		03/19/2015 15:12	1	P5F31907.D	
STD2 240-172821/8 IC		03/19/2015 15:43	1	P5F31908.D	
STD3 240-172821/9 ICRT		03/19/2015 16:13	1	P5F31909.D	
STD4 240-172821/10 IC		03/19/2015 16:44	1	P5F31910.D	
STD5 240-172821/11 IC		03/19/2015 17:14	1	P5F31911.D	
ICV 240-172821/12		03/19/2015 17:44	1	P5F31912.D	
ZZZZZ		03/19/2015 18:15	1		
ZZZZZ		03/19/2015 18:45	1		
ZZZZZ		03/19/2015 19:16	1		
CCV 240-172821/16		03/19/2015 19:46	1		
ZZZZZ		03/19/2015 20:16	1		
ZZZZZ		03/19/2015 20:47	1		
ZZZZZ		03/19/2015 21:17	1		
ZZZZZ		03/19/2015 21:47	5		
ZZZZZ		03/19/2015 22:17	5		
ZZZZZ		03/19/2015 22:48	5		
ZZZZZ		03/19/2015 23:18	5		
ZZZZZ		03/19/2015 23:48	5		
ZZZZZ		03/20/2015 00:18	5		
ZZZZZ		03/20/2015 00:49	5		
CCV 240-172821/27		03/20/2015 01:19	1		
ZZZZZ		03/20/2015 01:49	5		
ZZZZZ		03/20/2015 02:19	5		
ZZZZZ		03/20/2015 02:49	5		
CCV 240-172821/31		03/20/2015 03:19	1		
ZZZZZ		03/20/2015 03:49	1		
ZZZZZ		03/20/2015 04:19	1		
ZZZZZ		03/20/2015 04:49	1		
CCV 240-172821/35		03/20/2015 05:18	1		
CCV 240-172821/37		03/20/2015 11:27	1		
ZZZZZ		03/20/2015 11:57	10		
CCV 240-172821/39		03/20/2015 12:27	1		

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP5F Start Date: 04/09/2015 17:50

Analysis Batch Number: 175823 End Date: 04/10/2015 02:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-175823/7 CCVRT		04/09/2015 17:50	1	P5F40907.D	
ZZZZZ		04/09/2015 18:21	1		
ZZZZZ		04/09/2015 18:51	1		
ZZZZZ		04/09/2015 19:21	1		
ZZZZZ		04/09/2015 19:52	1		
ZZZZZ		04/09/2015 20:22	1		
CCV 240-175823/15		04/09/2015 21:53	1	P5F40915.D	
MB 240-175550/7-A		04/09/2015 22:23	1	P5F40916.D	
LCS 240-175550/8-A		04/09/2015 22:53	1	P5F40917.D	
240-49010-1	FILL-001	04/10/2015 00:24	1	P5F40920.D	
240-49010-1 MS	FILL-001 MS	04/10/2015 00:55	1	P5F40921.D	
240-49010-1 MSD	FILL-001 MSD	04/10/2015 01:25	1	P5F40922.D	
CCV 240-175823/24		04/10/2015 02:25	1	P5F40924.D	

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175550 Batch Start Date: 04/08/15 12:45 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 04/09/15 04:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXDIESELSPKW 00062	EXOTPSURRW 00001		
240-49010-E-1	FILL-001	3540C, 8015C	T	30.15 g	5 mL		1 mL		
240-49010-E-1 MS	FILL-001	3540C, 8015C	T	30.38 g	5 mL	1 mL	1 mL		
240-49010-E-1 MSD	FILL-001	3540C, 8015C	T	30.29 g	5 mL	1 mL	1 mL		
MB 240-175550/7		3540C, 8015C		30 g	5 mL		1 mL		
LCS 240-175550/8		3540C, 8015C		30 g	5 mL	1 mL	1 mL		

Batch Notes	
Balance ID	b037
Na2SO4 Lot Number	1942694
Prep Solvent Lot #	1937120

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): CLP-2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCB1 #
FILL-001	240-49010-1	88	104
	MB 240-175553/17-A	61	95
	LCS 240-175553/18-A	64	101

	QC LIMITS
TCX = Tetrachloro-m-xylene	29-151
DCB = DCB Decachlorobiphenyl	14-163

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P4000009.D

Lab ID: LCS 240-175553/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	252	76	62-120	
Aroclor-1260	333	311	93	56-122	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: MB 240-175553/17-A

Matrix: Solid Date Extracted: 04/08/2015 09:49

Lab File ID:(1) P4000008.D Lab File ID:(2)

Date Analyzed:(1) 04/10/2015 12:19 Date Analyzed:(2)

Instrument ID:(1) A2HP4 Instrument ID:(2)

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-175553/18-A	04/10/2015 12:35	
FILL-001	240-49010-1	04/10/2015 15:27	

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: STD05 240-174472/31 Date Analyzed: 04/01/2015 01:09

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P4000031.D Heated Purge: (Y/N) N

Calibration ID: 27599

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
INITIAL CALIBRATION SURROGATE				1.74	7.96	
UPPER LIMIT				1.84	8.06	
LOWER LIMIT				1.64	7.86	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD05 240-174472/31 ICRT		04/01/2015 01:09	P4000031.D	1.74	7.96	

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Sample No.: CCV 240-175923/3 Date Analyzed: 04/10/2015 11:01

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P4000003.D Heated Purge: (Y/N) N

Calibration ID: 27599

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
CONTINUING CALIBRATION SURROGATE				1.75	7.97	
UPPER LIMIT				1.85	8.07	
LOWER LIMIT				1.65	7.87	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-175923/3 CCVRT		04/10/2015 11:01	P4000003.D	1.75	7.97	
MB 240-175553/17-A		04/10/2015 12:19	P4000008.D	1.75	7.97	
LCS 240-175553/18-A		04/10/2015 12:35	P4000009.D	1.75	7.97	
CCV 240-175923/10		04/10/2015 12:50	P4000010.D	1.75	7.97	
240-49010-1	FILL-001	04/10/2015 15:27	P4000020.D	1.75	7.97	
CCV 240-175923/25		04/10/2015 16:46	P4000025.D	1.75	7.97	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0 minutes of surrogate RT
DCB RT Limit = ± 0 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175553/18-A

Instrument ID (1): A2HP4 Instrument ID (2):

Date Analyzed (1): 04/10/2015 12:35 Date Analyzed (2):

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): ID:

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		
				FROM	TO	PEAK	MEAN	
Aroclor-1016	2	1	2.22	2.12	2.32	207	252	
		2	2.62	2.52	2.72	242		
		3	3.08	2.98	3.18	281		
		4	3.22	3.12	3.32	260		
		5	3.71	3.61	3.81	271		
Aroclor-1260	2	1	5.05	4.95	5.15	309	311	
		2	5.28	5.18	5.38	314		
		3	5.65	5.55	5.75	344		
		4	6.34	6.24	6.44	297		
		5	6.72	6.62	6.82	293		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: FILL-001 Lab Sample ID: 240-49010-1

Matrix: Solid Lab File ID: P4000020.D

Analysis Method: 8082A Date Collected: 04/06/2015 15:00

Extraction Method: 3540C Date Extracted: 04/08/2015 09:49

Sample wt/vol: 30.00(g) Date Analyzed: 04/10/2015 15:27

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 7.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 175923 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	13	U	36	13
11104-28-2	Aroclor-1221	17	U	36	17
11141-16-5	Aroclor-1232	22	U	36	22
53469-21-9	Aroclor-1242	12	U	36	12
12672-29-6	Aroclor-1248	8.6	U	36	8.6
11097-69-1	Aroclor-1254	15	U	36	15
11096-82-5	Aroclor-1260	9.7	U	36	9.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	88		29-151
2051-24-3	DCB Decachlorobiphenyl	104		14-163

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 18:06 Calibration End Date: 03/31/2015 19:25 Calibration ID: 27605

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/4	P4000004.D
Level 2	STD01 240-174472/5	P4000005.D
Level 3	STD02 240-174472/6	P4000006.D
Level 4	STD05 240-174472/7	P4000007.D
Level 5	STD1 240-174472/8	P4000008.D
Level 6	STD2 240-174472/9	P4000009.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
PCB-1232 Peak 1	2.201	2.201	2.201	2.201	2.201	2.200					2.101 - 2.301	2.201
PCB-1232 Peak 2	2.602	2.602	2.603	2.603	2.603	2.603					2.502 - 2.702	2.603
PCB-1232 Peak 3	3.060	3.059	3.059	3.059	3.059	3.061					2.960 - 3.160	3.060
PCB-1232 Peak 4	3.199	3.199	3.200	3.199	3.200	3.200					3.099 - 3.299	3.200
PCB-1232 Peak 5	3.689	3.687	3.688	3.689	3.689	3.690					3.589 - 3.789	3.689
PCB-1262 Peak 1	5.259	5.261	5.260	5.260	5.261	5.261					5.159 - 5.359	5.260
PCB-1262 Peak 2	5.735	5.735	5.735	5.734	5.735	5.736					5.635 - 5.835	5.735
PCB-1262 Peak 3	6.045	6.045	6.045	6.045	6.045	6.046					5.945 - 6.145	6.045
PCB-1262 Peak 4	6.321	6.321	6.320	6.320	6.321	6.321					6.221 - 6.421	6.321
PCB-1262 Peak 5	6.704	6.704	6.704	6.704	6.704	6.704					6.604 - 6.804	6.704

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 18:06 Calibration End Date: 03/31/2015 19:25 Calibration ID: 27605

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/4	P4000004.D
Level 2	STD01 240-174472/5	P4000005.D
Level 3	STD02 240-174472/6	P4000006.D
Level 4	STD05 240-174472/7	P4000007.D
Level 5	STD1 240-174472/8	P4000008.D
Level 6	STD2 240-174472/9	P4000009.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	43380380 35151360	41844350 33384862	40540745	38193710	Ave		38749234.4				10.1		20.0			
PCB-1232 Peak 2	33261200 27959946	32644680 26701516	32061870	30336136	Ave		30494224.7				8.7		20.0			
PCB-1232 Peak 3	64580780 57679623	62615070 56876846	62527660	60965842	Ave		60874303.5				5.0		20.0			
PCB-1232 Peak 4	29245160 24934532	28564110 24398450	27931935	26784928	Ave		26976519.2				7.3		20.0			
PCB-1232 Peak 5	24455080 17664146	27521400 17124375	22493405	19781644	Ave		21506675.0				18.9		20.0			
PCB-1262 Peak 1	83662760 71272101	78062280 69780509	78398440	76151736	Ave		76221304.3				6.7		20.0			
PCB-1262 Peak 2	122504380 109333332	118144980 107434673	121152275	116811236	Ave		115896813				5.3		20.0			
PCB-1262 Peak 3	106772800 95793326	102569450 94354877	105158035	101969998	Ave		101103081				4.9		20.0			
PCB-1262 Peak 4	229863640 211079207	220883150 208817079	230463800	225234222	Ave		221056850				4.2		20.0			
PCB-1262 Peak 5	180347180 150692099	165826480 148913571	166940780	162081666	Ave		162466963				7.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 18:06 Calibration End Date: 03/31/2015 19:25 Calibration ID: 27605

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/4	P4000004.D
Level 2	STD01 240-174472/5	P4000005.D
Level 3	STD02 240-174472/6	P4000006.D
Level 4	STD05 240-174472/7	P4000007.D
Level 5	STD1 240-174472/8	P4000008.D
Level 6	STD2 240-174472/9	P4000009.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	2169019 66769723	4184435	8108149	19096855	35151360	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	1663060 53403032	3264468	6412374	15168068	27959946	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	3229039 113753692	6261507	12505532	30482921	57679623	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	1462258 48796900	2856411	5586387	13392464	24934532	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	1222754 34248750	2752140	4498681	9890822	17664146	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	Ave	4183138 139561017	7806228	15679688	38075868	71272101	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	Ave	6125219 214869346	11814498	24230455	58405618	109333332	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	Ave	5338640 188709753	10256945	21031607	50984999	95793326	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	Ave	11493182 417634158	22088315	46092760	112617111	211079207	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	Ave	9017359 297827142	16582648	33388156	81040833	150692099	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 19:40 Calibration End Date: 03/31/2015 20:59 Calibration ID: 27611

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/10	P4000010.D
Level 2	STD01 240-174472/11	P4000011.D
Level 3	STD02 240-174472/12	P4000012.D
Level 4	STD05 240-174472/13	P4000013.D
Level 5	STD1 240-174472/14	P4000014.D
Level 6	STD2 240-174472/15	P4000015.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
PCB-1242 Peak 1	2.201	2.200	2.200	2.200	2.201	2.201					2.101 - 2.301	2.201
PCB-1242 Peak 2	2.603	2.603	2.603	2.603	2.603	2.603					2.503 - 2.703	2.603
PCB-1242 Peak 3	3.059	3.059	3.059	3.060	3.059	3.059					2.959 - 3.159	3.059
PCB-1242 Peak 4	3.200	3.199	3.198	3.200	3.199	3.200					3.100 - 3.300	3.199
PCB-1242 Peak 5	3.688	3.689	3.688	3.690	3.690	3.689					3.588 - 3.788	3.689
PCB-1268 Peak 1	6.701	6.701	6.700	6.701	6.702	6.702					6.601 - 6.801	6.701
PCB-1268 Peak 2	6.749	6.748	6.748	6.749	6.751	6.750					6.649 - 6.849	6.749
PCB-1268 Peak 3	7.017	7.016	7.016	7.016	7.017	7.018					6.917 - 7.117	7.017
PCB-1268 Peak 4	7.330	7.331	7.330	7.330	7.332	7.331					7.230 - 7.430	7.331
PCB-1268 Peak 5	7.677	7.677	7.676	7.677	7.677	7.678					7.577 - 7.777	7.677

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 19:40 Calibration End Date: 03/31/2015 20:59 Calibration ID: 27611

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/10	P4000010.D
Level 2	STD01 240-174472/11	P4000011.D
Level 3	STD02 240-174472/12	P4000012.D
Level 4	STD05 240-174472/13	P4000013.D
Level 5	STD1 240-174472/14	P4000014.D
Level 6	STD2 240-174472/15	P4000015.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	29813000 25080677	29649120 23714609	26901110	25707498	Ave		26811002.4				9.3		20.0			
PCB-1242 Peak 2	57079820 46551817	55068850 43934565	49888210	47567308	Ave		50015094.9				10.2		20.0			
PCB-1242 Peak 3	110686480 105456485	113292690 101708158	105362160	104193458	Ave		106783239				4.1		20.0			
PCB-1242 Peak 4	48423760 44151488	50083980 42678918	45457805	44239662	Ave		45839268.8				6.2		20.0			
PCB-1242 Peak 5	47338760 34596615	42275720 33357424	37753180	34356500	Ave		38279699.8				14.4		20.0			
PCB-1268 Peak 1	280099920 255702882	277817060 249868245	261948510	253200146	Ave		263106127				4.9		20.0			
PCB-1268 Peak 2	262777580 247054322	267542770 243936822	250461935	247290068	Ave		253177249				3.8		20.0			
PCB-1268 Peak 3	223632860 212589065	228070630 208806571	214609095	211804524	Ave		216585457				3.5		20.0			
PCB-1268 Peak 4	98485040 91299092	100038360 89583483	93027920	90816940	Ave		93875139.1				4.6		20.0			
PCB-1268 Peak 5	687649680 660479471	706137900 658910316	667340850	657264604	Ave		672963804				2.9		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 19:40 Calibration End Date: 03/31/2015 20:59 Calibration ID: 27611

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/10	P4000010.D
Level 2	STD01 240-174472/11	P4000011.D
Level 3	STD02 240-174472/12	P4000012.D
Level 4	STD05 240-174472/13	P4000013.D
Level 5	STD1 240-174472/14	P4000014.D
Level 6	STD2 240-174472/15	P4000015.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	1490650 47429219	2964912	5380222	12853749	25080677	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	Ave	2853991 87869129	5506885	9977642	23783654	46551817	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	Ave	5534324 203416316	11329269	21072432	52096729	105456485	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	Ave	2421188 85357836	5008398	9091561	22119831	44151488	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	Ave	2366938 66714848	4227572	7550636	17178250	34596615	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	Ave	14004996 499736490	27781706	52389702	126600073	255702882	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	Ave	13138879 487873643	26754277	50092387	123645034	247054322	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	Ave	11181643 417613141	22807063	42921819	105902262	212589065	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	Ave	4924252 179166965	10003836	18605584	45408470	91299092	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	Ave	34382484 1317820632	70613790	133468170	328632302	660479471	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI

PCBS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 21:14 Calibration End Date: 03/31/2015 22:33 Calibration ID: 27617

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/16	P4000016.D
Level 2	STD01 240-174472/17	P4000017.D
Level 3	STD02 240-174472/18	P4000018.D
Level 4	STD05 240-174472/19	P4000019.D
Level 5	STD1 240-174472/20	P4000020.D
Level 6	STD2 240-174472/21	P4000021.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
PCB-1248 Peak 1	2.602	2.603	2.605	2.604	2.603	2.604					2.502 - 2.702	2.604
PCB-1248 Peak 2	3.058	3.058	3.061	3.061	3.059	3.060					2.958 - 3.158	3.060
PCB-1248 Peak 3	3.816	3.817	3.820	3.819	3.818	3.819					3.716 - 3.916	3.818
PCB-1248 Peak 4	4.135	4.136	4.140	4.138	4.138	4.138					4.035 - 4.235	4.138
PCB-1248 Peak 5	4.821	4.821	4.825	4.824	4.823	4.823					4.721 - 4.921	4.823

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 21:14 Calibration End Date: 03/31/2015 22:33 Calibration ID: 27617

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/16	P4000016.D
Level 2	STD01 240-174472/17	P4000017.D
Level 3	STD02 240-174472/18	P4000018.D
Level 4	STD05 240-174472/19	P4000019.D
Level 5	STD1 240-174472/20	P4000020.D
Level 6	STD2 240-174472/21	P4000021.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	29027440 23002247	27019020 22918197	25511780	23966254	Ave		25240822.9				9.6		20.0			
PCB-1248 Peak 2	75075400 66440096	71554730 68051867	68705920	66842322	Ave		69445055.8				4.8		20.0			
PCB-1248 Peak 3	68400400 61621973	67142230 63038338	64434280	62414332	Ave		64508592.2				4.2		20.0			
PCB-1248 Peak 4	80263940 71011760	76098710 72525884	73467500	71288652	Ave		74109407.6				4.8		20.0			
PCB-1248 Peak 5	41852980 36276840	40017940 37716350	38342755	36976724	Ave		38530598.1				5.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 21:14 Calibration End Date: 03/31/2015 22:33 Calibration ID: 27617

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/16	P4000016.D
Level 2	STD01 240-174472/17	P4000017.D
Level 3	STD02 240-174472/18	P4000018.D
Level 4	STD05 240-174472/19	P4000019.D
Level 5	STD1 240-174472/20	P4000020.D
Level 6	STD2 240-174472/21	P4000021.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	1451372 45836393	2701902	5102356	11983127	23002247	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	3753770 136103733	7155473	13741184	33421161	66440096	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	3420020 126076676	6714223	12886856	31207166	61621973	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	4013197 145051767	7609871	14693500	35644326	71011760	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	2092649 75432699	4001794	7668551	18488362	36276840	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:

Ave = Average

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 22:48 Calibration End Date: 04/01/2015 00:07 Calibration ID: 27623

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/22	P4000022.D
Level 2	STD01 240-174472/23	P4000023.D
Level 3	STD02 240-174472/24	P4000024.D
Level 4	STD05 240-174472/25	P4000025.D
Level 5	STD1 240-174472/26	P4000026.D
Level 6	STD2 240-174472/27	P4000027.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
PCB-1221 Peak 1	2.014	2.014	2.014	2.013	2.014	2.014					1.914 - 2.114	2.014
PCB-1221 Peak 2	2.148	2.149	2.148	2.147	2.147	2.148					2.048 - 2.248	2.148
PCB-1221 Peak 3	2.205	2.205	2.206	2.205	2.204	2.205					2.105 - 2.305	2.205
PCB-1254 Peak 1	4.136	4.136	4.136	4.135	4.135	4.136					4.036 - 4.236	4.136
PCB-1254 Peak 2	4.345	4.346	4.346	4.344	4.344	4.345					4.245 - 4.445	4.345
PCB-1254 Peak 3	4.826	4.826	4.826	4.824	4.824	4.825					4.726 - 4.926	4.825
PCB-1254 Peak 4	5.070	5.070	5.071	5.069	5.069	5.070					4.970 - 5.170	5.070
PCB-1254 Peak 5	5.639	5.639	5.639	5.637	5.639	5.639					5.539 - 5.739	5.639

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton | Job No.: 240-49010-1 | Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 | GC Column: CLP-2 | ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 22:48 | Calibration End Date: 04/01/2015 00:07 | Calibration ID: 27623

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/22	P4000022.D
Level 2	STD01 240-174472/23	P4000023.D
Level 3	STD02 240-174472/24	P4000024.D
Level 4	STD05 240-174472/25	P4000025.D
Level 5	STD1 240-174472/26	P4000026.D
Level 6	STD2 240-174472/27	P4000027.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	21439080 17781529	20492660 16987116	19040150	17866370	Ave		18934484.2				9.1		20.0			
PCB-1221 Peak 2	14277820 11725972	13632950 11052569	12956810	11929432	Ave		12595925.4				9.8		20.0			
PCB-1221 Peak 3	53158660 43490774	50669820 40886783	47318135	43997808	Ave		46586996.7				10.0		20.0			
PCB-1254 Peak 1	75112620 65526668	72270250 62729466	66963505	63877396	Ave		67746650.8				7.2		20.0			
PCB-1254 Peak 2	88085180 76746355	83898170 74354666	78396360	75491376	Ave		79495351.2				6.8		20.0			
PCB-1254 Peak 3	130998660 121040079	128404040 116575621	120396835	118502296	Ave		122652922				4.7		20.0			
PCB-1254 Peak 4	94680980 88943537	92653470 85135736	88039205	86174176	Ave		89271183.9				4.2		20.0			
PCB-1254 Peak 5	122953220 112252139	118356660 109244191	112076085	109859680	Ave		114123662				4.7		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/31/2015 22:48 Calibration End Date: 04/01/2015 00:07 Calibration ID: 27623

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/22	P4000022.D
Level 2	STD01 240-174472/23	P4000023.D
Level 3	STD02 240-174472/24	P4000024.D
Level 4	STD05 240-174472/25	P4000025.D
Level 5	STD1 240-174472/26	P4000026.D
Level 6	STD2 240-174472/27	P4000027.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	1071954 33974232	2049266	3808030	8933185	17781529	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	Ave	713891 22105137	1363295	2591362	5964716	11725972	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	Ave	2657933 81773566	5066982	9463627	21998904	43490774	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	Ave	3755631 125458932	7227025	13392701	31938698	65526668	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	Ave	4404259 148709332	8389817	15679272	37745688	76746355	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	Ave	6549933 233151242	12840404	24079367	59251148	121040079	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	Ave	4734049 170271471	9265347	17607841	43087088	88943537	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	Ave	6147661 218488381	11835666	22415217	54929840	112252139	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2015 00:22 Calibration End Date: 04/01/2015 01:41 Calibration ID: 27599

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/28	P4000028.D
Level 2	STD01 240-174472/29	P4000029.D
Level 3	STD02 240-174472/30	P4000030.D
Level 4	STD05 240-174472/31	P4000031.D
Level 5	STD1 240-174472/32	P4000032.D
Level 6	STD2 240-174472/33	P4000033.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
PCB-1016 Peak 1	2.206	2.206	2.210	2.210	2.209	2.210					2.110 - 2.310	2.209
PCB-1016 Peak 2	2.608	2.609	2.613	2.612	2.612	2.612					2.512 - 2.712	2.611
PCB-1016 Peak 3	3.065	3.065	3.070	3.070	3.069	3.069					2.970 - 3.170	3.068
PCB-1016 Peak 4	3.206	3.207	3.211	3.211	3.209	3.209					3.111 - 3.311	3.209
PCB-1016 Peak 5	3.694	3.696	3.700	3.700	3.699	3.699					3.600 - 3.800	3.698
PCB-1260 Peak 1	5.036	5.037	5.042	5.043	5.040	5.042					4.943 - 5.143	5.040
PCB-1260 Peak 2	5.266	5.268	5.273	5.272	5.271	5.272					5.172 - 5.372	5.270
PCB-1260 Peak 3	5.637	5.639	5.643	5.644	5.643	5.642					5.544 - 5.744	5.641
PCB-1260 Peak 4	6.326	6.327	6.333	6.332	6.331	6.332					6.232 - 6.432	6.330
PCB-1260 Peak 5	6.709	6.712	6.717	6.718	6.717	6.717					6.618 - 6.818	6.715
Tetrachloro-m-xylene	1.734	1.735	1.738	1.738	1.737	1.738					1.638 - 1.838	1.737
DCB Decachlorobiphenyl	7.957	7.958	7.962	7.962	7.962	7.962					7.862 - 8.062	7.961

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2015 00:22 Calibration End Date: 04/01/2015 01:41 Calibration ID: 27599

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/28	P4000028.D
Level 2	STD01 240-174472/29	P4000029.D
Level 3	STD02 240-174472/30	P4000030.D
Level 4	STD05 240-174472/31	P4000031.D
Level 5	STD1 240-174472/32	P4000032.D
Level 6	STD2 240-174472/33	P4000033.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	35421180 31235257	34666360 28323503	33854925	33628088	Ave		32854885.5				8.0		20.0			
PCB-1016 Peak 2	70323160 59520636	65805870 53773544	63179250	64162588	Ave		62794174.8				9.0		20.0			
PCB-1016 Peak 3	138077340 136384287	135688710 125976339	134589945	143657948	Ave		135729095				4.2		20.0			
PCB-1016 Peak 4	61208400 56209416	58663550 51999695	57267270	59556568	Ave		57484149.9				5.6		20.0			
PCB-1016 Peak 5	51386780 43893582	46388870 40724418	46511480	46360498	Ave		45877604.6				7.7		20.0			
PCB-1260 Peak 1	90567920 86247081	87877140 79932110	86295070	90935286	Ave		86975767.8				4.6		20.0			
PCB-1260 Peak 2	105145240 100218877	102213450 93356554	100448155	105438440	Ave		101136786				4.4		20.0			
PCB-1260 Peak 3	144890100 143257491	142107580 133722617	140608170	151007640	Ave		142598933				4.0		20.0			
PCB-1260 Peak 4	201167280 203868698	199849530 190851819	198687480	214831730	Ave		201542756				3.9		20.0			
PCB-1260 Peak 5	160877380 143860602	150986780 134829622	145915650	153652570	Ave		148353767				6.0		20.0			
Tetrachloro-m-xylene	1958117600 1889182800	1785868200 1787265840	1828172400	1971668360	Ave		1870045867				4.4		20.0			
DCB Decachlorobiphenyl	2100482400 1719277360	1843438400 1593262000	1798961800	1848207760	Ave		1817271620				9.3		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
PCBS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-49010-1 Analy Batch No.: 174472

SDG No.:

Instrument ID: A2HP4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2015 00:22 Calibration End Date: 04/01/2015 01:41 Calibration ID: 27599

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-174472/28	P4000028.D
Level 2	STD01 240-174472/29	P4000029.D
Level 3	STD02 240-174472/30	P4000030.D
Level 4	STD05 240-174472/31	P4000031.D
Level 5	STD1 240-174472/32	P4000032.D
Level 6	STD2 240-174472/33	P4000033.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	1771059 56647006	3466636	6770985	16814044	31235257	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	3516158 107547089	6580587	12635850	32081294	59520636	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	6903867 251952679	13568871	26917989	71828974	136384287	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	3060420 103999391	5866355	11453454	29778284	56209416	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	2569339 81448835	4638887	9302296	23180249	43893582	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	4528396 159864220	8787714	17259014	45467643	86247081	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	5257262 186713108	10221345	20089631	52719220	100218877	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	7244505 267445233	14210758	28121634	75503820	143257491	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	10058364 381703637	19984953	39737496	107415865	203868698	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	8043869 269659244	15098678	29183130	76826285	143860602	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	4895294 178726584	8929341	18281724	49291709	94459140	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	Ave	5251206 159326200	9217192	17989618	46205194	85963868	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-174472/39 Calibration Date: 04/01/2015 03:15

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000039.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	32854886	36094632		1.10	1.00	9.9	20.0
PCB-1016 Peak 2	Ave	62794175	72267225		1.15	1.00	15.1	20.0
PCB-1016 Peak 3	Ave	135729095	165884789		1.22	1.00	22.2*	20.0
PCB-1016 Peak 4	Ave	57484150	67869746		1.18	1.00	18.1	20.0
PCB-1016 Peak 5	Ave	45877605	52198867		1.14	1.00	13.8	20.0
PCB-1260 Peak 1	Ave	86975768	103830113		1.19	1.00	19.4	20.0
PCB-1260 Peak 2	Ave	101136786	118931893		1.18	1.00	17.6	20.0
PCB-1260 Peak 3	Ave	142598933	182628853		1.28	1.00	28.1*	20.0
PCB-1260 Peak 4	Ave	201542756	218099239		1.08	1.00	8.2	20.0
PCB-1260 Peak 5	Ave	148353767	157187932		1.06	1.00	6.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICV 240-174472/39 Calibration Date: 04/01/2015 03:15

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000039.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	2.21	2.11	2.31
PCB-1016 Peak 2	2.61	2.51	2.71
PCB-1016 Peak 3	3.07	2.97	3.17
PCB-1016 Peak 4	3.21	3.11	3.31
PCB-1016 Peak 5	3.70	3.60	3.80
PCB-1260 Peak 1	5.04	4.94	5.14
PCB-1260 Peak 2	5.27	5.17	5.37
PCB-1260 Peak 3	5.64	5.54	5.74
PCB-1260 Peak 4	6.33	6.23	6.43
PCB-1260 Peak 5	6.72	6.62	6.82

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175923/3 Calibration Date: 04/10/2015 11:01

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	32854886	32770980		0.499	0.500	-0.3	20.0
PCB-1016 Peak 2	Ave	62794175	63910250		0.509	0.500	1.8	20.0
PCB-1016 Peak 3	Ave	135729095	145899314		0.537	0.500	7.5	20.0
PCB-1016 Peak 4	Ave	57484150	59477782		0.517	0.500	3.5	20.0
PCB-1016 Peak 5	Ave	45877605	47615606		0.519	0.500	3.8	20.0
PCB-1260 Peak 1	Ave	86975768	94482754		0.543	0.500	8.6	20.0
PCB-1260 Peak 2	Ave	101136786	114170856		0.564	0.500	12.9	20.0
PCB-1260 Peak 3	Ave	142598933	161417882		0.566	0.500	13.2	20.0
PCB-1260 Peak 4	Ave	201542756	231291916		0.574	0.500	14.8	20.0
PCB-1260 Peak 5	Ave	148353767	166628826		0.562	0.500	12.3	20.0
Tetrachloro-m-xylene	Ave	1870045867	1981292440		0.0265	0.0250	5.9	20.0
DCB Decachlorobiphenyl	Ave	1817271620	1955294920		0.0269	0.0250	7.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175923/3 Calibration Date: 04/10/2015 11:01

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000003.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	2.22	2.12	2.32
PCB-1016 Peak 2	2.62	2.52	2.72
PCB-1016 Peak 3	3.08	2.98	3.18
PCB-1016 Peak 4	3.22	3.12	3.32
PCB-1016 Peak 5	3.71	3.61	3.81
PCB-1260 Peak 1	5.05	4.95	5.15
PCB-1260 Peak 2	5.28	5.18	5.38
PCB-1260 Peak 3	5.65	5.55	5.75
PCB-1260 Peak 4	6.34	6.24	6.44
PCB-1260 Peak 5	6.72	6.62	6.82
Tetrachloro-m-xylene	1.75	1.65	1.85
DCB Decachlorobiphenyl	7.97	7.87	8.07

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175923/10 Calibration Date: 04/10/2015 12:50

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000010.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	32854886	31655632		0.482	0.500	-3.7	20.0
PCB-1016 Peak 2	Ave	62794175	62004530		0.494	0.500	-1.3	20.0
PCB-1016 Peak 3	Ave	135729095	142672772		0.526	0.500	5.1	20.0
PCB-1016 Peak 4	Ave	57484150	58174590		0.506	0.500	1.2	20.0
PCB-1016 Peak 5	Ave	45877605	46874734		0.511	0.500	2.2	20.0
PCB-1260 Peak 1	Ave	86975768	93292178		0.536	0.500	7.3	20.0
PCB-1260 Peak 2	Ave	101136786	112339922		0.555	0.500	11.1	20.0
PCB-1260 Peak 3	Ave	142598933	159807088		0.560	0.500	12.1	20.0
PCB-1260 Peak 4	Ave	201542756	230224992		0.571	0.500	14.2	20.0
PCB-1260 Peak 5	Ave	148353767	163554994		0.551	0.500	10.2	20.0
Tetrachloro-m-xylene	Ave	1870045867	1950748720		0.0261	0.0250	4.3	20.0
DCB Decachlorobiphenyl	Ave	1817271620	1973230440		0.0271	0.0250	8.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175923/10 Calibration Date: 04/10/2015 12:50

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000010.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	2.22	2.12	2.32
PCB-1016 Peak 2	2.62	2.52	2.72
PCB-1016 Peak 3	3.08	2.98	3.18
PCB-1016 Peak 4	3.22	3.12	3.32
PCB-1016 Peak 5	3.71	3.61	3.81
PCB-1260 Peak 1	5.05	4.95	5.15
PCB-1260 Peak 2	5.28	5.18	5.38
PCB-1260 Peak 3	5.65	5.55	5.75
PCB-1260 Peak 4	6.34	6.24	6.44
PCB-1260 Peak 5	6.72	6.62	6.82
Tetrachloro-m-xylene	1.75	1.65	1.85
DCB Decachlorobiphenyl	7.97	7.87	8.07

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175923/25 Calibration Date: 04/10/2015 16:46

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000025.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	32854886	32538350		0.495	0.500	-1.0	20.0
PCB-1016 Peak 2	Ave	62794175	63922576		0.509	0.500	1.8	20.0
PCB-1016 Peak 3	Ave	135729095	146889914		0.541	0.500	8.2	20.0
PCB-1016 Peak 4	Ave	57484150	59653310		0.519	0.500	3.8	20.0
PCB-1016 Peak 5	Ave	45877605	47552208		0.518	0.500	3.7	20.0
PCB-1260 Peak 1	Ave	86975768	95012988		0.546	0.500	9.2	20.0
PCB-1260 Peak 2	Ave	101136786	114820910		0.568	0.500	13.5	20.0
PCB-1260 Peak 3	Ave	142598933	163193226		0.572	0.500	14.4	20.0
PCB-1260 Peak 4	Ave	201542756	234538654		0.582	0.500	16.4	20.0
PCB-1260 Peak 5	Ave	148353767	169266862		0.570	0.500	14.1	20.0
Tetrachloro-m-xylene	Ave	1870045867	2017634760		0.0270	0.0250	7.9	20.0
DCB Decachlorobiphenyl	Ave	1817271620	2017487560		0.0278	0.0250	11.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: CCV 240-175923/25 Calibration Date: 04/10/2015 16:46

Instrument ID: A2HP4 Calib Start Date: 04/01/2015 00:22

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 04/01/2015 01:41

Lab File ID: P4000025.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	2.22	2.12	2.32
PCB-1016 Peak 2	2.62	2.52	2.72
PCB-1016 Peak 3	3.08	2.98	3.18
PCB-1016 Peak 4	3.22	3.12	3.32
PCB-1016 Peak 5	3.71	3.61	3.81
PCB-1260 Peak 1	5.05	4.95	5.15
PCB-1260 Peak 2	5.28	5.18	5.38
PCB-1260 Peak 3	5.65	5.55	5.75
PCB-1260 Peak 4	6.34	6.24	6.44
PCB-1260 Peak 5	6.72	6.62	6.82
Tetrachloro-m-xylene	1.75	1.65	1.85
DCB Decachlorobiphenyl	7.97	7.87	8.07

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-175553/17-A

Matrix: Solid Lab File ID: P4000008.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3540C Date Extracted: 04/08/2015 09:49

Sample wt/vol: 30(g) Date Analyzed: 04/10/2015 12:19

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 175923 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	12	U	33	12
11104-28-2	Aroclor-1221	16	U	33	16
11141-16-5	Aroclor-1232	20	U	33	20
53469-21-9	Aroclor-1242	11	U	33	11
12672-29-6	Aroclor-1248	8.0	U	33	8.0
11097-69-1	Aroclor-1254	14	U	33	14
11096-82-5	Aroclor-1260	9.0	U	33	9.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	61		29-151
2051-24-3	DCB Decachlorobiphenyl	95		14-163

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-175553/18-A

Matrix: Solid Lab File ID: P4000009.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3540C Date Extracted: 04/08/2015 09:49

Sample wt/vol: 30(g) Date Analyzed: 04/10/2015 12:35

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 175923 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	252		33	12
11096-82-5	Aroclor-1260	311		33	9.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	64		29-151
2051-24-3	DCB Decachlorobiphenyl	101		14-163

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP4 Start Date: 03/31/2015 18:06

Analysis Batch Number: 174472 End Date: 04/01/2015 07:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-174472/4 IC		03/31/2015 18:06	1		CLP-1 0.53(mm)
STD005 240-174472/4 IC		03/31/2015 18:06	1	P4000004.D	CLP-2 0.53(mm)
STD01 240-174472/5 IC		03/31/2015 18:22	1		CLP-1 0.53(mm)
STD01 240-174472/5 IC		03/31/2015 18:22	1	P4000005.D	CLP-2 0.53(mm)
STD02 240-174472/6 IC		03/31/2015 18:38	1		CLP-1 0.53(mm)
STD02 240-174472/6 IC		03/31/2015 18:38	1	P4000006.D	CLP-2 0.53(mm)
STD05 240-174472/7 IC		03/31/2015 18:53	1		CLP-1 0.53(mm)
STD05 240-174472/7 IC		03/31/2015 18:53	1	P4000007.D	CLP-2 0.53(mm)
STD1 240-174472/8 IC		03/31/2015 19:09	1		CLP-1 0.53(mm)
STD1 240-174472/8 IC		03/31/2015 19:09	1	P4000008.D	CLP-2 0.53(mm)
STD2 240-174472/9 IC		03/31/2015 19:25	1		CLP-1 0.53(mm)
STD2 240-174472/9 IC		03/31/2015 19:25	1	P4000009.D	CLP-2 0.53(mm)
STD005 240-174472/10 IC		03/31/2015 19:40	1		CLP-1 0.53(mm)
STD005 240-174472/10 IC		03/31/2015 19:40	1	P4000010.D	CLP-2 0.53(mm)
STD01 240-174472/11 IC		03/31/2015 19:56	1		CLP-1 0.53(mm)
STD01 240-174472/11 IC		03/31/2015 19:56	1	P4000011.D	CLP-2 0.53(mm)
STD02 240-174472/12 IC		03/31/2015 20:12	1		CLP-1 0.53(mm)
STD02 240-174472/12 IC		03/31/2015 20:12	1	P4000012.D	CLP-2 0.53(mm)
STD05 240-174472/13 IC		03/31/2015 20:27	1		CLP-1 0.53(mm)
STD05 240-174472/13 IC		03/31/2015 20:27	1	P4000013.D	CLP-2 0.53(mm)
STD1 240-174472/14 IC		03/31/2015 20:43	1		CLP-1 0.53(mm)
STD1 240-174472/14 IC		03/31/2015 20:43	1	P4000014.D	CLP-2 0.53(mm)
STD2 240-174472/15 IC		03/31/2015 20:59	1		CLP-1 0.53(mm)
STD2 240-174472/15 IC		03/31/2015 20:59	1	P4000015.D	CLP-2 0.53(mm)
STD005 240-174472/16 IC		03/31/2015 21:14	1		CLP-1 0.53(mm)
STD005 240-174472/16 IC		03/31/2015 21:14	1	P4000016.D	CLP-2 0.53(mm)
STD01 240-174472/17 IC		03/31/2015 21:30	1		CLP-1 0.53(mm)
STD01 240-174472/17 IC		03/31/2015 21:30	1	P4000017.D	CLP-2 0.53(mm)
STD02 240-174472/18 IC		03/31/2015 21:46	1		CLP-1 0.53(mm)
STD02 240-174472/18 IC		03/31/2015 21:46	1	P4000018.D	CLP-2 0.53(mm)
STD05 240-174472/19 IC		03/31/2015 22:01	1		CLP-1 0.53(mm)
STD05 240-174472/19 IC		03/31/2015 22:01	1	P4000019.D	CLP-2 0.53(mm)
STD1 240-174472/20 IC		03/31/2015 22:17	1		CLP-1 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP4 Start Date: 03/31/2015 18:06

Analysis Batch Number: 174472 End Date: 04/01/2015 07:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-174472/20 IC		03/31/2015 22:17	1	P4000020.D	CLP-2 0.53(mm)
STD2 240-174472/21 IC		03/31/2015 22:33	1		CLP-1 0.53(mm)
STD2 240-174472/21 IC		03/31/2015 22:33	1	P4000021.D	CLP-2 0.53(mm)
STD005 240-174472/22 IC		03/31/2015 22:48	1		CLP-1 0.53(mm)
STD005 240-174472/22 IC		03/31/2015 22:48	1	P4000022.D	CLP-2 0.53(mm)
STD01 240-174472/23 IC		03/31/2015 23:04	1		CLP-1 0.53(mm)
STD01 240-174472/23 IC		03/31/2015 23:04	1	P4000023.D	CLP-2 0.53(mm)
STD02 240-174472/24 IC		03/31/2015 23:20	1		CLP-1 0.53(mm)
STD02 240-174472/24 IC		03/31/2015 23:20	1	P4000024.D	CLP-2 0.53(mm)
STD05 240-174472/25 IC		03/31/2015 23:35	1		CLP-1 0.53(mm)
STD05 240-174472/25 IC		03/31/2015 23:35	1	P4000025.D	CLP-2 0.53(mm)
STD1 240-174472/26 IC		03/31/2015 23:51	1		CLP-1 0.53(mm)
STD1 240-174472/26 IC		03/31/2015 23:51	1	P4000026.D	CLP-2 0.53(mm)
STD2 240-174472/27 IC		04/01/2015 00:07	1		CLP-1 0.53(mm)
STD2 240-174472/27 IC		04/01/2015 00:07	1	P4000027.D	CLP-2 0.53(mm)
STD005 240-174472/28 IC		04/01/2015 00:22	1		CLP-1 0.53(mm)
STD005 240-174472/28 IC		04/01/2015 00:22	1	P4000028.D	CLP-2 0.53(mm)
STD01 240-174472/29 IC		04/01/2015 00:38	1		CLP-1 0.53(mm)
STD01 240-174472/29 IC		04/01/2015 00:38	1	P4000029.D	CLP-2 0.53(mm)
STD02 240-174472/30 IC		04/01/2015 00:54	1		CLP-1 0.53(mm)
STD02 240-174472/30 IC		04/01/2015 00:54	1	P4000030.D	CLP-2 0.53(mm)
STD05 240-174472/31 ICRT		04/01/2015 01:09	1		CLP-1 0.53(mm)
STD05 240-174472/31 ICRT		04/01/2015 01:09	1	P4000031.D	CLP-2 0.53(mm)
STD1 240-174472/32 IC		04/01/2015 01:25	1		CLP-1 0.53(mm)
STD1 240-174472/32 IC		04/01/2015 01:25	1	P4000032.D	CLP-2 0.53(mm)
STD2 240-174472/33 IC		04/01/2015 01:41	1		CLP-1 0.53(mm)
STD2 240-174472/33 IC		04/01/2015 01:41	1	P4000033.D	CLP-2 0.53(mm)
ICV 240-174472/34		04/01/2015 01:56	1		CLP-1 0.53(mm)
ICV 240-174472/34		04/01/2015 01:56	1		CLP-2 0.53(mm)
ICV 240-174472/35		04/01/2015 02:12	1		CLP-1 0.53(mm)
ICV 240-174472/35		04/01/2015 02:12	1		CLP-2 0.53(mm)
ICV 240-174472/37		04/01/2015 02:43	1		CLP-1 0.53(mm)
ICV 240-174472/37		04/01/2015 02:43	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP4 Start Date: 03/31/2015 18:06

Analysis Batch Number: 174472 End Date: 04/01/2015 07:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-174472/38		04/01/2015 02:59	1		CLP-1 0.53(mm)
ICV 240-174472/38		04/01/2015 02:59	1		CLP-2 0.53(mm)
ICV 240-174472/39		04/01/2015 03:15	1		CLP-1 0.53(mm)
ICV 240-174472/39		04/01/2015 03:15	1	P4000039.D	CLP-2 0.53(mm)
ICV 240-174472/42		04/01/2015 06:53	1		CLP-1 0.53(mm)
ICV 240-174472/42		04/01/2015 06:53	1		CLP-2 0.53(mm)
ICV 240-174472/43		04/01/2015 07:08	1		CLP-1 0.53(mm)
ICV 240-174472/43		04/01/2015 07:08	1		CLP-2 0.53(mm)
ICV 240-174472/44		04/01/2015 07:24	1		CLP-1 0.53(mm)
ICV 240-174472/44		04/01/2015 07:24	1		CLP-2 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: A2HP4 Start Date: 04/10/2015 11:01

Analysis Batch Number: 175923 End Date: 04/10/2015 16:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-175923/3 CCVRT		04/10/2015 11:01	1		CLP-1 0.53(mm)
CCV 240-175923/3 CCVRT		04/10/2015 11:01	1	P4000003.D	CLP-2 0.53(mm)
ZZZZZ		04/10/2015 12:19	1		CLP-1 0.53(mm)
MB 240-175553/17-A		04/10/2015 12:19	1	P4000008.D	CLP-2 0.53(mm)
ZZZZZ		04/10/2015 12:35	1		CLP-1 0.53(mm)
LCS 240-175553/18-A		04/10/2015 12:35	1	P4000009.D	CLP-2 0.53(mm)
CCV 240-175923/10		04/10/2015 12:50	1		CLP-1 0.53(mm)
CCV 240-175923/10		04/10/2015 12:50	1	P4000010.D	CLP-2 0.53(mm)
ZZZZZ		04/10/2015 15:27	1		CLP-1 0.53(mm)
240-49010-1	FILL-001	04/10/2015 15:27	1	P4000020.D	CLP-2 0.53(mm)
CCV 240-175923/25		04/10/2015 16:46	1		CLP-1 0.53(mm)
CCV 240-175923/25		04/10/2015 16:46	1	P4000025.D	CLP-2 0.53(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175553 Batch Start Date: 04/08/15 12:45 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 04/09/15 04:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX10PPMSPK 00015	EX2/.2SURRW 00053		
240-49010-E-1	FILL-001	3540C, 8082A	T	30.00 g	10 mL		1 mL		
MB 240-175553/17		3540C, 8082A		30 g	10 mL		1 mL		
LCS 240-175553/18		3540C, 8082A		30 g	10 mL	1 mL	1 mL		

Batch Notes	
Acid used for Clean Up Reagent	1826627
Balance ID	b037
Na2SO4 Lot Number	1942694
Prep Solvent Lot #	1928228

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG No.:

Project: MRC-Middle River

Client Sample ID	Lab Sample ID
FILL-001	240-49010-1

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FILL-001 Lab Sample ID: 240-49010-1

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG ID.:

Matrix: Solid Date Sampled: 04/06/2015 15:00

Reporting Basis: DRY Date Received: 04/07/2015 09:15

% Solids: 92.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-22-4	Silver	0.056	0.89	0.056	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.40	1.3	0.37	mg/Kg	J		1	6010C
7440-39-3	Barium	2.6	18	0.37	mg/Kg	J		1	6010C
7440-41-7	Beryllium	0.023	0.45	0.023	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.019	0.45	0.019	mg/Kg	U		1	6010C
7440-48-4	Cobalt	0.054	0.89	0.042	mg/Kg	J		1	6010C
7440-47-3	Chromium	11	0.89	0.067	mg/Kg			1	6010C
7440-50-8	Copper	1.1	2.2	0.21	mg/Kg	J		1	6010C
7439-98-7	Molybdenum	0.13	3.6	0.053	mg/Kg	J		1	6010C
7440-02-0	Nickel	0.21	3.6	0.071	mg/Kg	J		1	6010C
7439-92-1	Lead	0.39	0.89	0.020	mg/Kg	J		1	6010C
7782-49-2	Selenium	0.30	1.8	0.30	mg/Kg	U		1	6010C
7440-62-2	Vanadium	21	0.89	0.18	mg/Kg			1	6010C
7440-66-6	Zinc	1.3	4.5	0.50	mg/Kg	J		1	6010C
7440-36-0	Antimony	0.43	1.8	0.43	mg/Kg	U		1	6010C
7440-28-0	Thallium	0.12	1.8	0.12	mg/Kg	U		1	6010C
7439-97-6	Mercury	0.015	0.11	0.015	mg/Kg	U		1	7471A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

ICV Source: MT6500ICV_00025 Concentration Units: ug/L

CCV Source: MTICPCCV_00045

Analyte	ICV 240-175886/4 04/09/2015 08:43				CCV 240-175886/18 04/09/2015 09:42				CCV 240-175886/30 04/09/2015 10:32			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	389		375	104	529		500	106	523		500	105
Arsenic	391		375	104	521		500	104	521		500	104
Barium	1530		1500	102	2040		2000	102	2050		2000	103
Beryllium	1530		1500	102	1980		2000	99	2010		2000	100
Cadmium	393		375	105	527		500	105	526		500	105
Chromium	1500		1500	100	1960		2000	98	1980		2000	99
Cobalt	1510		1500	101	2020		2000	101	2030		2000	102
Lead	381		375	101	494		500	99	493		500	99
Molybdenum	1530		1500	102	2050		2000	103	2060		2000	103
Nickel	1550		1500	103	2040		2000	102	2050		2000	102
Selenium	393		375	105	515		500	103	514		500	103
Silver	758		750	101	979		1000	98	988		1000	99
Thallium	767		750	102	1010		1000	101	1010		1000	101
Vanadium	1570		1500	105	2050		2000	103	2070		2000	103
Zinc	1560		1500	104	2040		2000	102	2060		2000	103
Copper	1510		1500	100	1930		2000	97	1950		2000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

ICV Source: MT6500ICV_00025 Concentration Units: ug/L

CCV Source: MTICPCCV_00045

Analyte	ICV 240-175933/4 04/10/2015 06:39				CCV 240-175933/46 04/10/2015 09:32				CCV 240-175933/58 04/10/2015 10:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Copper	1520		1500	102	2060		2000	103	2130		2000	106
Antimony	385		375	103	498		500	100	515		500	103
Arsenic	382		375	102	503		500	101	512		500	102
Barium	1500		1500	100	1970		2000	99	2030		2000	102
Beryllium	1520		1500	102	1980		2000	99	2000		2000	100
Cadmium	386		375	103	503		500	101	517		500	103
Chromium	1500		1500	100	1990		2000	100	2040		2000	102
Cobalt	1490		1500	99	1970		2000	98	1990		2000	100
Lead	385		375	103	497		500	99	503		500	101
Molybdenum	1530		1500	102	2030		2000	101	2050		2000	103
Nickel	1520		1500	101	1960		2000	98	1990		2000	99
Selenium	393		375	105	509		500	102	510		500	102
Silver	763		750	102	1030		1000	103	1060		1000	106
Thallium	764		750	102	1010		1000	101	1020		1000	102
Vanadium	1560		1500	104	1990		2000	100	2060		2000	103
Zinc	1530		1500	102	1960		2000	98	1980		2000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

ICV Source: MTHgStd_00011 Concentration Units: ug/L

CCV Source: MTHGCALW_00875

Analyte	ICV 240-175562/7-A 04/09/2015 08:35				CCV 240-175562/11-A 04/09/2015 09:42				CCV 240-175562/11-A 04/09/2015 10:05			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.15		5.00	103	4.95		5.00	99	5.09		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

ICV Source: MTHgStd_00011 Concentration Units: ug/L

CCV Source: MTHGCALW_00875

Analyte	CCV 240-175562/11-A 04/09/2015 10:29				CCV 240-175562/11-A 04/09/2015 10:52							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.13		5.00	103	5.13		5.00	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Method: 6010C Instrument ID: I12

Lab Sample ID: CRI 240-175886/20 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00026

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Silver	10.0	10.3		103	70-130
Arsenic	15.0	14.8	J	99	70-130
Barium	200	206		103	70-130
Beryllium	5.00	5.02		100	70-130
Cadmium	5.00	5.29		106	70-130
Cobalt	10.0	9.47	J	95	70-130
Chromium	10.0	10.2		102	70-130
Copper	20.0	8.79	J ^	44	70-130
Molybdenum	40.0	41.2		103	70-130
Nickel	40.0	39.5	J	99	70-130
Lead	10.0	9.21	J	92	70-130
Selenium	20.0	19.1	J	96	70-130
Vanadium	10.0	12.3		123	70-130
Zinc	50.0	54.8		110	70-130
Antimony	20.0	22.6		113	70-130
Thallium	20.0	21.8		109	70-130

Lab Sample ID: CRI 240-175886/45 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00026

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Silver	10.0	10.2		102	70-130
Arsenic	15.0	16.6		110	70-130
Barium	200	203		101	70-130
Beryllium	5.00	4.93	J	99	70-130
Cadmium	5.00	5.19		104	70-130
Cobalt	10.0	9.56	J	96	70-130
Chromium	10.0	10.1		101	70-130
Copper	20.0	18.2	J	91	70-130
Molybdenum	40.0	41.0		102	70-130
Nickel	40.0	39.5	J	99	70-130
Lead	10.0	8.62	J	86	70-130
Selenium	20.0	19.8	J	99	70-130
Vanadium	10.0	9.10	J	91	70-130
Zinc	50.0	54.1		108	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Method: 6010C Instrument ID: I12

Lab Sample ID: CRI 240-175886/45 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00026

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	19.8	J	99	70-130
Thallium	20.0	19.8	J	99	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Method: 6010C Instrument ID: I9

Lab Sample ID: CRI 240-175933/52 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00026

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Silver	10.0	10.1		101	70-130
Arsenic	15.0	13.2	J	88	70-130
Barium	200	201		100	70-130
Beryllium	5.00	4.91	J	98	70-130
Cadmium	5.00	4.96	J	99	70-130
Cobalt	10.0	9.96	J	100	70-130
Chromium	10.0	10.5		105	70-130
Copper	20.0	23.5	J	117	70-130
Molybdenum	40.0	40.7		102	70-130
Nickel	40.0	40.7		102	70-130
Lead	10.0	11.9		119	70-130
Selenium	20.0	21.8		109	70-130
Vanadium	10.0	10.4		104	70-130
Zinc	50.0	57.6		115	70-130
Antimony	20.0	19.5	J	98	70-130
Thallium	20.0	20.1		100	70-130

Lab Sample ID: CRI 240-175933/56 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00026

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Silver	10.0	9.65	J	96	70-130
Arsenic	15.0	11.1	J	74	70-130
Barium	200	200		100	70-130
Beryllium	5.00	4.79	J	96	70-130
Cadmium	5.00	5.09		102	70-130
Cobalt	10.0	10.2		102	70-130
Chromium	10.0	11.0		110	70-130
Copper	20.0	23.2	J	116	70-130
Molybdenum	40.0	40.4		101	70-130
Nickel	40.0	41.2		103	70-130
Lead	10.0	12.3		123	70-130
Selenium	20.0	21.3		106	70-130
Vanadium	10.0	7.94	J	79	70-130
Zinc	50.0	58.0		116	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Method: 6010C Instrument ID: I9

Lab Sample ID: CRI 240-175933/56 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00026

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	19.9	J	100	70-130
Thallium	20.0	21.0		105	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Method: 7471A Instrument ID: H4

Lab Sample ID: CRA 240-175562/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00875

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.191	J	96	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-175886/5 04/09/2015 08:47		CCB 240-175886/19 04/09/2015 09:46		CCB 240-175886/31 04/09/2015 10:36			
		Found	C	Found	C	Found	C	Found	C
Antimony	20	2.4	U	2.4	U	2.4	U		
Arsenic	15	2.9	U	2.9	U	2.9	U		
Barium	200	1.0	U	1.0	U	1.0	U		
Beryllium	5.0	0.309	J	0.288	J	0.398	J		
Cadmium	5.0	0.14	U	0.14	U	0.205	J		
Chromium	10	0.55	U	0.55	U	0.55	U		
Cobalt	10	0.56	U	0.56	U	0.56	U		
Lead	10	1.9	U	1.9	U	1.9	U		
Molybdenum	40	1.33	J	1.70	J	1.95	J		
Nickel	40	0.76	U	0.76	U	0.76	U		
Selenium	20	4.0	U	4.0	U	4.0	U		
Silver	10	0.92	U	0.92	U	0.92	U		
Thallium	20	1.7	U	1.7	U	1.7	U		
Vanadium	10	2.4	U	2.4	U	2.4	U		
Zinc	50	9.6	U	9.6	U	9.6	U		
Copper	25	1.9	U	1.9	U	1.9	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-175933/5 04/10/2015 06:43		CCB 240-175933/47 04/10/2015 09:36		CCB 240-175933/59 04/10/2015 10:25			
		Found	C	Found	C	Found	C	Found	C
Copper	25	1.9	U	1.9	U	1.9	U		
Antimony	20	2.4	U	2.4	U	2.4	U		
Arsenic	15	2.9	U	2.9	U	2.9	U		
Barium	200	1.0	U	1.18	J	1.0	U		
Beryllium	5.0	0.13	U	0.13	U	0.13	U		
Cadmium	5.0	0.14	U	0.14	U	0.14	U		
Chromium	10	0.694	J	0.55	U	0.55	U		
Cobalt	10	0.685	J	0.56	U	0.56	U		
Lead	10	2.10	J	1.9	U	1.90	J		
Molybdenum	40	0.550	J	0.904	J	0.842	J		
Nickel	40	0.942	J	0.76	U	0.76	U		
Selenium	20	4.0	U	4.0	U	4.0	U		
Silver	10	0.92	U	0.92	U	0.92	U		
Thallium	20	1.7	U	1.7	U	1.7	U		
Vanadium	10	2.4	U	2.4	U	2.4	U		
Zinc	50	9.6	U	9.6	U	9.6	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-175562/8-A 04/09/2015 08:37		CCB 240-175562/10-A 04/09/2015 09:44		CCB 240-175562/10-A 04/09/2015 10:07		CCB 240-175562/10-A 04/09/2015 10:31	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.60	0.090	U	0.090	U	0.090	U	0.090	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-175562/10-A 04/09/2015 10:54							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.60	0.090	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-175558/1-A

Instrument Code: I12 Batch No.: 175886

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.063	U		6010C
7440-38-2	Arsenic	0.41	U		6010C
7440-39-3	Barium	0.41	U		6010C
7440-41-7	Beryllium	0.026	U		6010C
7440-43-9	Cadmium	0.021	U		6010C
7440-48-4	Cobalt	0.047	U		6010C
7440-47-3	Chromium	0.075	U		6010C
7439-98-7	Molybdenum	0.059	U		6010C
7440-02-0	Nickel	0.080	U		6010C
7439-92-1	Lead	0.022	U		6010C
7782-49-2	Selenium	0.34	U		6010C
7440-62-2	Vanadium	0.20	U		6010C
7440-66-6	Zinc	0.56	U		6010C
7440-36-0	Antimony	0.48	U		6010C
7440-28-0	Thallium	0.13	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-175558/1-A

Instrument Code: I9 Batch No.: 175933

CAS No.	Analyte	Concentration	C	Q	Method
7440-50-8	Copper	0.23	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-175585/1-A

Instrument Code: H4 Batch No.: 175776

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.014	U		7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICSA 240-175886/8 Instrument ID: I12

Lab File ID: I12040915A.asc ICS Source: MTTRICSAW_00025

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**-1.86**	
Arsenic		**-1.61**	
Barium		**0.279**	
Beryllium		**0.144**	
Cadmium		**0.655**	
Chromium		**2.36**	
Cobalt		**-5.40**	
Lead		**2.04**	
Molybdenum		**-1.67**	
Nickel		**2.93**	
Selenium		**2.64**	
Silver		**-1.33**	
Thallium		**-3.16**	
Vanadium		**2.42**	
Zinc		**1.85**	
Aluminum	*500000*	*536380*	*107*
Boron		*5.29*	
Calcium	*500000*	*481150*	*96*
Copper		*-1.64*	
Iron	*200000*	*197370*	*99*
Lithium		*-0.801*	
Magnesium	*500000*	*514340*	*103*
Manganese		*0.757*	
Potassium		*-37.6*	
Silicon		*-8.17*	
Sodium		*50.3*	
Strontium		*4.17*	
Tin		*2.84*	
Titanium		*-1.08*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICSAB 240-175886/9 Instrument ID: I12

Lab File ID: I12040915A.asc ICS Source: MTICPICSABW_00007

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**1000**	**1068**	**107**
Arsenic	**1000**	**1047**	**105**
Barium	**500**	**523**	**105**
Beryllium	**500**	**486**	**97**
Cadmium	**1000**	**1083**	**108**
Chromium	**500**	**481**	**96**
Cobalt	**500**	**494**	**99**
Lead	**1000**	**917**	**92**
Molybdenum	**1000**	**979**	**98**
Nickel	**1000**	**1002**	**100**
Selenium	**1000**	**1024**	**102**
Silver	**1000**	**1067**	**107**
Thallium	**1000**	**965**	**97**
Vanadium	**500**	**510**	**102**
Zinc	**1000**	**999**	**100**
Aluminum	*500000*	*542040*	*108*
Boron	*500*	*514*	*103*
Calcium	*500000*	*485090*	*97*
Copper	*500*	*524*	*105*
Iron	*200000*	*198120*	*99*
Lithium	*500*	*562*	*112*
Magnesium	*500000*	*510460*	*102*
Manganese	*500*	*469*	*94*
Potassium	*10000*	*10812*	*108*
Silicon	*10000*	*10384*	*104*
Sodium	*10000*	*10661*	*107*
Strontium	*1500*	*1466*	*98*
Tin	*500*	*502*	*100*
Titanium	*500*	*495*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICSA 240-175933/8 Instrument ID: I9

Lab File ID: I9041015A.asc ICS Source: MTTRICSAW_00025

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Copper		**1.19**	
Aluminum	*500000*	*508110*	*102*
Antimony		*-0.893*	
Arsenic		*-1.18*	
Barium		*0.392*	
Beryllium		*-0.332*	
Boron		*-1.81*	
Cadmium		*0.527*	
Calcium	*500000*	*493050*	*99*
Chromium		*4.48*	
Cobalt		*-1.24*	
Iron	*200000*	*196020*	*98*
Lead		*4.83*	
Lithium		*-26.5*	
Magnesium	*500000*	*502760*	*101*
Manganese		*0.569*	
Molybdenum		*-2.77*	
Nickel		*2.90*	
Potassium		*134*	
Selenium		*-2.63*	
Silicon		*-3.36*	
Silver		*-0.342*	
Sodium		*245*	
Strontium		*6.80*	
Thallium		*5.00*	
Tin		*0.571*	
Titanium		*0.202*	
Vanadium		*-5.11*	
Zinc		*2.17*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Lab Sample ID: ICSAB 240-175933/9 Instrument ID: I9

Lab File ID: I9041015A.asc ICS Source: MTICPICSABW_00007

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Copper	**500**	**562**	**112**
Aluminum	*500000*	*511470*	*102*
Antimony	*1000*	*1036*	*104*
Arsenic	*1000*	*1039*	*104*
Barium	*500*	*503*	*101*
Beryllium	*500*	*492*	*98*
Boron	*500*	*522*	*104*
Cadmium	*1000*	*1054*	*105*
Calcium	*500000*	*499820*	*100*
Chromium	*500*	*503*	*101*
Cobalt	*500*	*490*	*98*
Iron	*200000*	*196820*	*98*
Lead	*1000*	*988*	*99*
Lithium	*500*	*497*	*99*
Magnesium	*500000*	*499320*	*100*
Manganese	*500*	*503*	*101*
Molybdenum	*1000*	*1016*	*102*
Nickel	*1000*	*975*	*97*
Potassium	*10000*	*10605*	*106*
Selenium	*1000*	*1020*	*102*
Silicon	*10000*	*10125*	*101*
Silver	*1000*	*1098*	*110*
Sodium	*10000*	*10644*	*106*
Strontium	*1500*	*1465*	*98*
Thallium	*1000*	*1010*	*101*
Tin	*500*	*496*	*99*
Titanium	*500*	*515*	*103*
Vanadium	*500*	*494*	*99*
Zinc	*1000*	*955*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-49031-G-7-M MS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 83.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.231		0.016	U	0.217	107	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: | Lab ID: 240-49031-G-7-N MSD

Lab Name: TestAmerica Canton | Job No.: 240-49010-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 83.8

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.232		0.217	107	80-120	0	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-175558/2-A

Lab Name: TestAmerica Canton Job No.: 240-49010-1

Sample Matrix: Solid LCS Source: MTAGSPIKEW_00047

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Silver	5.00	4.75		95	80	120		6010C
Arsenic	200	198		99	80	120		6010C
Barium	200	193		97	80	120		6010C
Beryllium	5.00	4.68		94	80	120		6010C
Cadmium	5.00	5.13		103	80	120		6010C
Cobalt	50.0	47.7		95	80	120		6010C
Chromium	20.0	19.2		96	80	120		6010C
Molybdenum	100	99.9		100	80	120		6010C
Nickel	50.0	48.9		98	80	120		6010C
Lead	50.0	47.7		95	80	120		6010C
Selenium	200	194		97	80	120		6010C
Vanadium	50.0	49.1		98	80	120		6010C
Zinc	50.0	48.9		98	80	120		6010C
Antimony	50.0	50.8		102	80	120		6010C
Thallium	200	190		95	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-175558/2-A

Lab Name: TestAmerica Canton Job No.: 240-49010-1

Sample Matrix: Solid LCS Source: MTICP1_00039

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Copper	25.0	24.5		98	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-175585/2-A

Lab Name: TestAmerica Canton Job No.: 240-49010-1

Sample Matrix: Solid LCS Source: MTHGCALW_00875

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.833	0.790		95	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: I12

Method: 6010C MDL Date: 09/09/2014 14:47

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony	206.838	2	0.48
Arsenic	189.042	1.5	0.41
Barium	493.409	20	0.41
Beryllium	313.042	0.5	0.026
Cadmium	226.502	0.5	0.021
Chromium	267.716	1	0.075
Cobalt	228.616	1	0.047
Lead	220.353	1	0.022
Molybdenum	202.030	4	0.059
Nickel	231.604	4	0.08
Selenium	196.026	2	0.34
Silver	328.068	1	0.063
Thallium	190.864	2	0.13
Vanadium	292.402	1	0.2
Zinc	213.856	5	0.56

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: I12

Method: 6010C XMDL Date: 09/09/2014 14:47

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	206.838	20	2.4
Arsenic	189.042	15	2.9
Barium	493.409	200	1
Beryllium	313.042	5	0.13
Cadmium	226.502	5	0.14
Chromium	267.716	10	0.55
Cobalt	228.616	10	0.56
Lead	220.353	10	1.9
Molybdenum	202.030	40	0.53
Nickel	231.604	40	0.76
Selenium	196.026	20	4
Silver	328.068	10	0.92
Thallium	190.864	20	1.7
Vanadium	292.402	10	2.4
Zinc	213.856	50	9.6

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: I9

Method: 6010C MDL Date: 09/09/2014 14:47

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Copper	324.753	2.5	0.23

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: I9

Method: 6010C XMDL Date: 09/09/2014 14:47

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Copper	324.753	25	1.9

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: H4

Method: 7471A MDL Date: 09/17/2014 14:20

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury	253.7	0.1	0.014

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: H4

Method: 7471A XMDL Date: 09/17/2014 14:15

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.6	0.09

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/29/2015

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.016418				0.048658	
Antimony		-0.000064			0.000069			-0.000040						0.001892	
Arsenic		0.000010			0.000011	0.001772			-0.000355	0.003923					
Beryllium														0.000309	
Cadmium			0.004739					0.000001							
Cobalt													0.002135		
Copper				0.000018	0.000298			0.000016							
Lead		-0.000086					0.000334	0.000044			0.000131	0.000056			
Lithium				0.000027											
Nickel					0.000518			0.000057							
Selenium		-0.000017							0.000338						
Thallium					0.001697				0.000571				-0.002075	-0.007632	
Vanadium								0.000045							
Zinc						-0.001092									

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 03/24/2015

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.010824					0.075184
Antimony		-0.000071			-0.000195			-0.000027							0.002500
Arsenic		0.000015			-0.000057	0.001800			-0.000355	0.003582					
Barium															
Beryllium															0.000431
Boron															
Cadmium			0.006473					-0.000005							
Calcium															
Chromium															
Cobalt													0.002117		
Copper				0.000023	0.000140			0.000007							
Iron															
Lead		-0.000133					0.000315	0.000039			0.000066	0.000060			
Lithium				0.000078											
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000518			0.000071							
Potassium															
Selenium									0.000338						
Silver															
Sodium															
Strontium															
Thallium					0.001660				0.001238				-0.000834		-0.007071
Tin															
Titanium															
Vanadium								0.000014							
Zinc						-0.000592									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-49010-1

SDG No.:

Instrument ID: I12 Date: 07/15/2014 10:31

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Silver		2000	6010C
Arsenic		5000	6010C
Barium		25000	6010C
Beryllium		4000	6010C
Cadmium		2000	6010C
Cobalt		10000	6010C
Chromium		20000	6010C
Molybdenum		10000	6010C
Nickel		30000	6010C
Lead		15000	6010C
Selenium		10000	6010C
Vanadium		5000	6010C
Zinc		10000	6010C
Antimony		10000	6010C
Thallium		10000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-49010-1

SDG No.:

Instrument ID: I9 Date: 07/15/2014 10:31

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Copper		30000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-49010-1

SDG No.:

Instrument ID: H4 Date: 12/10/2013 15:55

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7471A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-175558/1-A	04/08/2015 10:26	175558	1.00		100
LCS 240-175558/2-A	04/08/2015 10:26	175558	1.00		100
240-49010-1	04/08/2015 10:26	175558	1.21		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-175585/1-A	04/08/2015 15:00	175585	0.60		100
LCS 240-175585/2-A	04/08/2015 15:00	175585	0.60		100
240-49031-G-7-M MS	04/08/2015 15:00	175585	0.55		100
240-49031-G-7-N MSD	04/08/2015 15:00	175585	0.55		100
240-49010-1	04/08/2015 15:00	175585	0.59		100

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I12 Method: 6010C

Start Date: 04/09/2015 08:31 End Date: 04/09/2015 15:48

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Mo	Ni	Pb	Sb	Se	Tl	V	Zn					
ICIS 240-175886/1	1		08:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CALSTD 240-175886/2 IC			08:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CALSTD 240-175886/3 IC			08:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICV 240-175886/4	1		08:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICB 240-175886/5	1		08:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CRI 240-175886/6			08:52																				
ZZZZZZ			08:56																				
ICSA 240-175886/8	1		09:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSAB 240-175886/9	1		09:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 240-175886/10			09:08																				
CCB 240-175886/11			09:12																				
ZZZZZZ			09:16																				
ZZZZZZ			09:20																				
ZZZZZZ			09:24																				
ZZZZZZ			09:28																				
ZZZZZZ			09:33																				
ZZZZZZ			09:37																				
CCV 240-175886/18	1		09:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 240-175886/19	1		09:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CRI 240-175886/20	1		09:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
MB 240-175558/1-A	1	T	09:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCS 240-175558/2-A	1	T	10:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
240-49010-1	1	T	10:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			10:08																				
ZZZZZZ			10:12																				
ZZZZZZ			10:16																				
ZZZZZZ			10:20																				
ZZZZZZ			10:24																				
ZZZZZZ			10:28																				
CCV 240-175886/30	1		10:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 240-175886/31	1		10:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			10:40																				
ZZZZZZ			10:44																				
ZZZZZZ			10:48																				
ZZZZZZ			10:52																				
ZZZZZZ			10:56																				
ZZZZZZ			10:59																				
ZZZZZZ			11:03																				
ZZZZZZ			11:07																				
ZZZZZZ			11:12																				
ZZZZZZ			11:16																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I12 Method: 6010C

Start Date: 04/09/2015 08:31 End Date: 04/09/2015 15:48

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Mo	Ni	Pb	Sb	Se	Tl	V	Zn					
CCV 240-175886/42			11:20																				
CCB 240-175886/43			11:24																				
ZZZZZZ			11:28																				
CRI 240-175886/45	1		11:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			11:36																				
ZZZZZZ			11:40																				
ZZZZZZ			11:44																				
ZZZZZZ			11:48																				
ZZZZZZ			11:52																				
ZZZZZZ			11:56																				
ZZZZZZ			12:00																				
ZZZZZZ			12:04																				
CCV 240-175886/54			12:08																				
CCB 240-175886/55			12:12																				
ZZZZZZ			12:16																				
ZZZZZZ			12:20																				
ZZZZZZ			12:24																				
ZZZZZZ			12:28																				
ZZZZZZ			12:33																				
ZZZZZZ			12:37																				
ZZZZZZ			12:41																				
ZZZZZZ			12:45																				
ZZZZZZ			12:49																				
ZZZZZZ			12:54																				
CCV 240-175886/66			12:58																				
CCB 240-175886/67			13:02																				
ZZZZZZ			13:06																				
ZZZZZZ			13:10																				
ZZZZZZ			13:14																				
ZZZZZZ			13:18																				
ZZZZZZ			13:22																				
ZZZZZZ			13:26																				
ZZZZZZ			13:31																				
ZZZZZZ			13:35																				
ZZZZZZ			13:39																				
ZZZZZZ			13:43																				
CCV 240-175886/78			13:47																				
CCB 240-175886/79			13:51																				
ZZZZZZ			13:55																				
ZZZZZZ			13:59																				
ZZZZZZ			14:03																				
ZZZZZZ			14:08																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I12 Method: 6010C

Start Date: 04/09/2015 08:31 End Date: 04/09/2015 15:48

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ag	As	Ba	Be	Cd	Co	Cr	Mo	Ni	Pb	Sb	Se	Tl	V	Zn						
ZZZZZZ			14:12																					
ZZZZZZ			14:16																					
ZZZZZZ			14:20																					
ZZZZZZ			14:24																					
ZZZZZZ			14:28																					
ZZZZZZ			14:32																					
CCV 240-175886/90			14:36																					
CCB 240-175886/91			14:40																					
ZZZZZZ			14:44																					
ZZZZZZ			14:48																					
ZZZZZZ			14:52																					
ZZZZZZ			14:56																					
ZZZZZZ			15:01																					
ZZZZZZ			15:05																					
ZZZZZZ			15:16																					
ZZZZZZ			15:20																					
ZZZZZZ			15:24																					
ZZZZZZ			15:28																					
CCV 240-175886/102			15:32																					
CCB 240-175886/103			15:36																					
ZZZZZZ			15:40																					
CCV 240-175886/105			15:44																					
CCB 240-175886/106			15:48																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 04/10/2015 06:27 End Date: 04/10/2015 19:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Cu																			
ICIS 240-175933/1	1		06:27	X																			
CALSTD 240-175933/2 IC			06:31	X																			
CALSTD 240-175933/3 IC			06:35	X																			
ICV 240-175933/4	1		06:39	X																			
ICB 240-175933/5	1		06:43	X																			
ZZZZZZ			06:48																				
ZZZZZZ			06:52																				
ICSA 240-175933/8	1		06:56	X																			
ICSAB 240-175933/9	1		07:00	X																			
CCV 240-175933/10			07:03																				
CCB 240-175933/11			07:07																				
ZZZZZZ			07:11																				
ZZZZZZ			07:15																				
ZZZZZZ			07:20																				
ZZZZZZ			07:24																				
ZZZZZZ			07:28																				
ZZZZZZ			07:32																				
CCV 240-175933/18			07:36																				
CCB 240-175933/19			07:40																				
CRI 240-175933/20			07:48																				
ZZZZZZ			07:52																				
ZZZZZZ			07:56																				
ZZZZZZ			08:00																				
ZZZZZZ			08:04																				
ZZZZZZ			08:08																				
ZZZZZZ			08:12																				
ZZZZZZ			08:16																				
ZZZZZZ			08:20																				
ZZZZZZ			08:24																				
CCV 240-175933/30			08:28																				
CCB 240-175933/31			08:31																				
ZZZZZZ			08:35																				
ZZZZZZ			08:40																				
ZZZZZZ			08:44																				
ZZZZZZ			08:48																				
ZZZZZZ			08:52																				
ZZZZZZ			08:56																				
ZZZZZZ			09:00																				
ZZZZZZ			09:04																				
ZZZZZZ			09:08																				
ZZZZZZ			09:12																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 04/10/2015 06:27 End Date: 04/10/2015 19:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Cu																			
CCV 240-175933/42			09:16																				
CCB 240-175933/43			09:20																				
ZZZZZZ			09:24																				
ZZZZZZ			09:28																				
CCV 240-175933/46	1		09:32	X																			
CCB 240-175933/47	1		09:36	X																			
ZZZZZZ			09:41																				
ZZZZZZ			09:45																				
ZZZZZZ			09:49																				
ZZZZZZ			09:53																				
CRI 240-175933/52	1		09:57	X																			
MB 240-175558/1-A	1	T	10:01	X																			
LCS 240-175558/2-A	1	T	10:06	X																			
240-49010-1	1	T	10:09	X																			
CRI 240-175933/56	1		10:13	X																			
ZZZZZZ			10:17																				
CCV 240-175933/58	1		10:21	X																			
CCB 240-175933/59	1		10:25	X																			
ZZZZZZ			10:29																				
ZZZZZZ			10:33																				
ZZZZZZ			10:37																				
ZZZZZZ			10:41																				
ZZZZZZ			10:44																				
ZZZZZZ			10:48																				
ZZZZZZ			10:52																				
ZZZZZZ			10:56																				
ZZZZZZ			11:00																				
ZZZZZZ			11:04																				
CCV 240-175933/70			11:08																				
CCB 240-175933/71			11:11																				
ZZZZZZ			11:16																				
ZZZZZZ			11:19																				
ZZZZZZ			11:23																				
ZZZZZZ			11:28																				
ZZZZZZ			11:32																				
ZZZZZZ			11:35																				
ZZZZZZ			11:40																				
ZZZZZZ			11:43																				
ZZZZZZ			11:48																				
ZZZZZZ			11:52																				
CCV 240-175933/82			11:56																				
CCB 240-175933/83			11:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 04/10/2015 06:27 End Date: 04/10/2015 19:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Cu																			
ZZZZZZ			12:04																				
ZZZZZZ			12:08																				
ZZZZZZ			12:12																				
ZZZZZZ			12:16																				
ZZZZZZ			12:20																				
ZZZZZZ			12:24																				
ZZZZZZ			12:28																				
ZZZZZZ			12:32																				
ZZZZZZ			12:36																				
ZZZZZZ			12:40																				
CCV 240-175933/94			12:44																				
CCB 240-175933/95			12:48																				
ZZZZZZ			12:52																				
ZZZZZZ			12:56																				
ZZZZZZ			12:59																				
ZZZZZZ			13:03																				
ZZZZZZ			13:07																				
ZZZZZZ			13:11																				
ZZZZZZ			13:15																				
ZZZZZZ			13:19																				
ZZZZZZ			13:24																				
ZZZZZZ			13:28																				
CCV 240-175933/106			13:32																				
CCB 240-175933/107			13:35																				
ZZZZZZ			13:40																				
ZZZZZZ			13:44																				
ZZZZZZ			13:48																				
ZZZZZZ			13:52																				
ZZZZZZ			13:56																				
ZZZZZZ			14:00																				
ZZZZZZ			14:04																				
ZZZZZZ			14:08																				
ZZZZZZ			14:12																				
ZZZZZZ			14:16																				
CCV 240-175933/118			14:20																				
CCB 240-175933/119			14:24																				
ZZZZZZ			14:28																				
ZZZZZZ			14:32																				
ZZZZZZ			14:36																				
ZZZZZZ			14:40																				
ZZZZZZ			14:44																				
ZZZZZZ			14:47																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 04/10/2015 06:27 End Date: 04/10/2015 19:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Cu																			
ZZZZZZ			14:51																				
ZZZZZZ			14:55																				
ZZZZZZ			14:59																				
ZZZZZZ			15:03																				
CCV 240-175933/130			15:07																				
CCB 240-175933/131			15:11																				
ZZZZZZ			15:15																				
ZZZZZZ			15:19																				
ZZZZZZ			15:23																				
ZZZZZZ			15:27																				
ZZZZZZ			15:31																				
ZZZZZZ			15:35																				
ZZZZZZ			15:39																				
ZZZZZZ			15:43																				
ZZZZZZ			15:47																				
ZZZZZZ			15:51																				
CCV 240-175933/142			15:55																				
CCB 240-175933/143			15:59																				
ZZZZZZ			16:03																				
ZZZZZZ			16:07																				
ZZZZZZ			16:11																				
ZZZZZZ			16:15																				
ZZZZZZ			16:19																				
ZZZZZZ			16:23																				
ZZZZZZ			16:27																				
ZZZZZZ			16:31																				
ZZZZZZ			16:35																				
ZZZZZZ			16:39																				
CCV 240-175933/154			16:43																				
CCB 240-175933/155			16:47																				
ZZZZZZ			16:51																				
ZZZZZZ			16:55																				
ZZZZZZ			16:59																				
ZZZZZZ			17:03																				
ZZZZZZ			17:07																				
ZZZZZZ			17:11																				
ZZZZZZ			17:15																				
ZZZZZZ			17:19																				
ZZZZZZ			17:23																				
ZZZZZZ			17:27																				
CCV 240-175933/166			17:31																				
CCB 240-175933/167			17:35																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: I9 Method: 6010C

Start Date: 04/10/2015 06:27 End Date: 04/10/2015 19:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Cu																			
ZZZZZZ			17:39																				
ZZZZZZ			17:43																				
ZZZZZZ			17:46																				
ZZZZZZ			17:50																				
ZZZZZZ			17:54																				
ZZZZZZ			17:58																				
ZZZZZZ			18:02																				
ZZZZZZ			18:06																				
ZZZZZZ			18:10																				
ZZZZZZ			18:14																				
CCV 240-175933/178			18:18																				
CCB 240-175933/179			18:22																				
ZZZZZZ			18:26																				
ZZZZZZ			18:30																				
ZZZZZZ			18:34																				
ZZZZZZ			18:38																				
ZZZZZZ			18:43																				
ZZZZZZ			18:47																				
ZZZZZZ			18:51																				
ZZZZZZ			18:55																				
ZZZZZZ			19:00																				
CCV 240-175933/189			19:04																				
CCB 240-175933/190			19:08																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: H4 Method: 7471A

Start Date: 04/09/2015 08:22 End Date: 04/09/2015 11:25

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-175562/1-A			08:22	X																			
IC 240-175562/2-A			08:25	X																			
IC 240-175562/3-A			08:27	X																			
IC 240-175562/4-A			08:29	X																			
IC 240-175562/5-A			08:31	X																			
IC 240-175562/6-A			08:33	X																			
ICV 240-175562/7-A	1		08:35	X																			
ICB 240-175562/8-A	1		08:37	X																			
CRA 240-175562/9-A	1		08:39	X																			
CCV 240-175562/11-A	1		09:42	X																			
CCB 240-175562/10-A	1		09:44	X																			
ZZZZZZ			09:46																				
ZZZZZZ			09:48																				
ZZZZZZ			09:50																				
ZZZZZZ			09:52																				
ZZZZZZ			09:53																				
ZZZZZZ			09:55																				
ZZZZZZ			09:57																				
ZZZZZZ			09:59																				
ZZZZZZ			10:01																				
MB 240-175585/1-A	1	T	10:03	X																			
CCV 240-175562/11-A	1		10:05	X																			
CCB 240-175562/10-A	1		10:07	X																			
LCS 240-175585/2-A	1	T	10:08	X																			
ZZZZZZ			10:11																				
240-49031-G-7-M MS	1	T	10:12	X																			
240-49031-G-7-N MSD	1	T	10:14	X																			
ZZZZZZ			10:17																				
ZZZZZZ			10:19																				
ZZZZZZ			10:21																				
ZZZZZZ			10:23																				
ZZZZZZ			10:24																				
ZZZZZZ			10:26																				
CCV 240-175562/11-A	1		10:29	X																			
CCB 240-175562/10-A	1		10:31	X																			
ZZZZZZ			10:33																				
ZZZZZZ			10:35																				
ZZZZZZ			10:37																				
ZZZZZZ			10:39																				
ZZZZZZ			10:41																				
ZZZZZZ			10:42																				
ZZZZZZ			10:44																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: H4 Method: 7471A

Start Date: 04/09/2015 08:22 End Date: 04/09/2015 11:25

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
240-49010-1	1	T	10:46	X																			
ZZZZZZ			10:48																				
ZZZZZZ			10:50																				
CCV 240-175562/11-A	1		10:52	X																			
CCB 240-175562/10-A	1		10:54	X																			
ZZZZZZ			10:56																				
ZZZZZZ			10:59																				
CCV 240-175562/11-A			11:01																				
CCB 240-175562/10-A			11:03																				
CCV 240-175562/11-A			11:18																				
CCB 240-175562/10-A			11:20																				
ZZZZZZ			11:21																				
CCV 240-175562/11-A			11:23																				
CCB 240-175562/10-A			11:25																				

Prep Types

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175558 Batch Start Date: 04/08/15 10:26 Batch Analyst: Elshaw, Dale

Batch Method: 3050B Batch End Date: 04/08/15 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	MT1TO1HN03 00942	MTAGSPIKEW 00047	MTH202 00041
MB 240-175558/1		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	10 mL		10 mL
LCS 240-175558/2		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	10 mL	2 mL	10 mL
240-49010-E-1	FILL-001	3050B, 6010C	T	CALC NOT SET TO RUN	1.21 g	100 mL	10 mL		10 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTICP1 00039	MTICP2A 00048	MTTMHCL 00061	MTTMHNO3 00053		
MB 240-175558/1		3050B, 6010C				10 mL	5 mL		
LCS 240-175558/2		3050B, 6010C		2 mL	2 mL	10 mL	5 mL		
240-49010-E-1	FILL-001	3050B, 6010C	T			10 mL	5 mL		

Batch Notes	
Balance ID	b039
Blank Soil Lot Number	K565-4i009
Filter Paper Lot Number	9605292
Hot Block ID number	a1 a2
Pipette ID	383366-66
Digestion Tube/Cup Lot #	140204

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175562 Batch Start Date: 04/08/15 08:39 Batch Analyst: Walpole, Barbara

Batch Method: 7471A Batch End Date: 04/08/15 09:09

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAQUAREGIA 00988	MTHGCALW 00875	MTHgStd 00011	MTKMN04W 00080
ICV 240-175562/7		7471A, 7471A		100 mL	100 mL	5 mL		0.5 mL	15 mL
ICB 240-175562/8		7471A, 7471A		100 mL	100 mL	5 mL			15 mL
CRA 240-175562/9		7471A, 7471A		100 mL	100 mL	5 mL	0.2 mL		15 mL
CCB 240-175562/10		7471A, 7471A		100 mL	100 mL	5 mL			15 mL
CCV 240-175562/11		7471A, 7471A		100 mL	100 mL	5 mL	5 mL		15 mL

Batch Notes	
Hot Block ID number	C1
Pipette ID	383364-383366-1325009
Digestion Tube/Cup Lot #	1408268

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175585 Batch Start Date: 04/08/15 15:00 Batch Analyst: Elshaw, Dale

Batch Method: 7471A Batch End Date: 04/08/15 15:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAQUAREGIA 00987	MTHGCALW 00875	MTKMN04W 00080	
MB 240-175585/1		7471A, 7471A		0.60 g	100 mL	5 mL		15 mL	
LCS 240-175585/2		7471A, 7471A		0.60 g	100 mL	5 mL	5 mL	15 mL	
240-49031-G-7 MS		7471A, 7471A	T	0.55 g	100 mL	5 mL	1 mL	15 mL	
240-49031-G-7 MSD		7471A, 7471A	T	0.55 g	100 mL	5 mL	1 mL	15 mL	
240-49010-E-1	FILL-001	7471A, 7471A	T	0.59 g	100 mL	5 mL		15 mL	

Batch Notes	
Balance ID	b039
Blank Soil Lot Number	K565-4i009
Hot Block ID number	c3
Pipette ID	383364-383366-66
Digestion Tube/Cup Lot #	1408268

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG No.:

Project: MRC-Middle River

Client Sample ID	Lab Sample ID
FILL-001	240-49010-1

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-49010-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/28/2010 09:24

Analyte	Wavelength/ Mass	XRL (mg/L)	
Percent Moisture		10	
Percent Solids		10	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 04/07/2015 14:03 End Date: 04/07/2015 17:55

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			14:03	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 04/07/2015 14:03 End Date: 04/07/2015 17:55

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol	Moist																			
ZZZZZZ			15:17																					
240-49010-1 DU	1	T	15:17	X	X																			
240-49010-1	1	T	15:17	X	X																			
ZZZZZZ			15:17																					
ZZZZZZ			15:17																					
ZZZZZZ			15:17																					
ZZZZZZ			15:17																					
ZZZZZZ			15:17																					
ZZZZZZ			17:41																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					
ZZZZZZ			17:55																					

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-49010-1

SDG No.:

Batch Number: 175452 Batch Start Date: 04/07/15 14:03 Batch Analyst: Matheny, Sarah

Batch Method: Moisture Batch End Date: 04/08/15 10:11

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
240-49010-A-1 DU	FILL-001	Moisture	T	4.2418 g	8.3449 g	7.8861 g			
240-49010-A-1	FILL-001	Moisture	T	4.2418 g	9.5456 g	9.1531 g			

Batch Notes	
Balance ID	B047 No Unit
Date samples were placed in the oven	4/7/2015
Oven Temp when samples are put in oven	103.1 Degrees C
Time samples were place in the oven	18:13
Date samples were removed from oven	4/8/15
Oven Temp when samples removed from oven	103.9 Degrees C
Time Samples were removed from oven	6:15
Oven ID	002
ID number of the thermometer	TemGuard Box-C #6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

EMLab P&K
A TestAmerica Company

Report for:

Mr. John McFadden
TestAmerica-Canton
4101 Shuffel Dr. NW
North Canton, OH 44720

Regarding: Project: 240-49010-1; LM MSA Dump Road Area 2014
EML ID: 1349197

Approved by:



Approved Signatory
Noah Lazarte

Dates of Analysis:
Asbestos PLM: 04-09-2015

Service SOPs: Asbestos PLM (EPA Methods 600/R-93/116 & 600/M4-82-020, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K
4955 Yarrow Street , Arvada, CO 80002
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Mr. John McFadden
Re: 240-49010-1; LM MSA Dump Road Area 2014

Date of Sampling: 04-06-2015
Date of Receipt: 04-08-2015
Date of Report: 04-10-2015

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	1
Total Samples Analyzed:	1
Total Samples with Layer Asbestos Content > 1%:	0

Location: 240-49010-1, FILL-001

Lab ID-Version‡: 6178442-1

Sample Layers	Asbestos Content
Peach Soil	ND
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Subcontract Data

Shipping and Receiving Documents

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS


240-49010 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

TestAmerica ~~Pittsburgh~~ NORTH CANTON
~~301 Alpha Drive RIDC Park~~ 4101 SHUFFEL ST. N.W.
~~Pittsburgh, PA 15238~~
~~Phone (412) 963-7058 Fax (412) 963-2468~~ NORTH CANTON, OH

Chain of Custody Record

#24/C29

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Josh Mullis	Lab PM: Pat O'meara	Carrier Tracking No(s):	COC No: 180-23290-5596.1
Client Contact: Tony Apanavage / Scott Nesbit	Phone: 410-279-2700	E-Mail:		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): 5 days			
State, Zip: MD, 20874				
Phone:	PO #:			
Email: Tony.Apanavage@tetratech.com	WO #:			
Project Name: Fill Analysis.	Project #: 112IC07483.20			
Site: MAC-Middle River	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs	SVOCs, TPH Gas/Mod, PCBs	Metals	Asbestos	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
FILL-001	4/6/15	1500	G	S			X	X	X	X		"SELECT FILL" & AGGREGATES
TB-040615	4/6/15	—	G	W			X	—	—	—		

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Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Block G exc BACKFILL MATERIAL

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		4/6/15 1500	Tetra Tech		3/6/15 1606	TestAmerica
2		4/6/15 1735	TT		4-7-15 915	TA
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 49010**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4-7-15 Opened on 4-7-15

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

~~IR GUN# A (CF +4.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. 2.4 °C Corrected Cooler Temp. 2.9 °C ☐ See Multiple Cooler Form

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

IR GUN# 8 (CF -1.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the sampler(s) clearly identified on the COC? Yes (No)
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# **HC425511**
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____